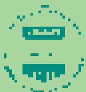
Family Planning

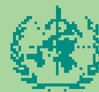
A GLOBAL HANDBOOK FOR PROVIDERS

2011 UPDATE

Successor to

The Essentials of Contraceptive Technology





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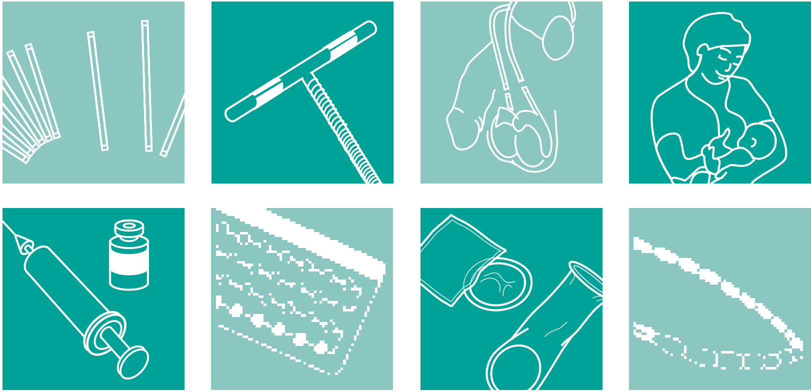
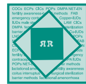


Family Planning

A GLOBAL HANDBOOK FOR PROVIDERS

Evidence-based guidance developed
through worldwide collaboration



A WHO Family Planning Cornerstone

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Department of
Reproductive Health and Research

Johns Hopkins
Bloomberg School of Public Health
Center for Communication Programs
Knowledge for Health Project

United States Agency for International Development
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Office of Population and Reproductive Health

2011

Family Planning

A GLOBAL HANDBOOK FOR PROVIDERS

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Forewords

From the World Health Organization

The job of family planning remains unfinished. Despite great progress over the last several decades, more than 120 million women worldwide want to prevent pregnancy, but they and their partners are not using contraception. Reasons for unmet need are many: Services and supplies are not yet available everywhere or choices are limited. Fear of social disapproval or partner's opposition pose formidable barriers. Worries of side effects and health concerns hold some people back; others lack knowledge about contraceptive options and their use. These people need help now.

Millions more are using family planning to avoid pregnancy but fail, for a variety of reasons. They may not have received clear instructions on how to use the method properly, could not get a method better suited to them, were not properly prepared for side effects, or supplies ran out. These people need better help now.

Moreover, the job of family planning never will be finished. In the next 5 years about 60 million girls and boys will reach sexual maturity. Generation after generation, there will always be people needing family planning and other health care.

While current challenges to health throughout the world are many and serious, the need to control one's own fertility probably touches more lives than any other health issue. It is crucial to people's well-being, particularly that of women—and fundamental to their self-determination.

How can this book help? By enabling health care providers to give better care to more people. In a straightforward, easily used way, this book translates scientific evidence into practical guidance on all major contraceptive methods. This guidance reflects the consensus of experts from the world's leading health organizations. With this book in hand, a provider can confidently serve clients with many different needs and knowledgeably offer a wide range of methods.

The World Health Organization (WHO) appreciates the many contributions to this book made by people from around the world. The collaboration to develop, by consensus, an evidence-based book of this scope and depth is a remarkable achievement. WHO would like to thank particularly the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs for its invaluable partnership in the preparation of this book. WHO also appreciates the commitment of the many organizations—United Nations agencies, members of the Implementing Best Practices Consortium, and many others—that are adopting this handbook and disseminating it to health care providers throughout the world with the financial support of a wide range of government agencies and other development partners. These concerted efforts attest that the job of improving the world's health lies in good hands.

Paul F.A. Van Look, MD PhD FRCOG
Former Director, Department of Reproductive Health and Research
World Health Organization

From the United States Agency for International Development

The practical, up-to-date guidance in this new handbook will help to improve the quality of family planning services and maximize people's access to them. It can help family planning providers to assist clients choosing a family planning method, to support effective use, and to solve clients' problems. Managers and trainers can use this book, too.

While this handbook covers many topics, 4 overall themes emerge:

1. Almost everyone can safely use almost any method, and providing most methods is usually not complicated. Thus, methods can be made widely available and offered even where health care resources are quite limited. This book defines and explains the many opportunities for people to choose, start, and change family planning methods appropriately.

2. Family planning methods can be effective when properly provided. For greatest effectiveness some methods, such as pills and condoms, require the user's conscientious action. The provider's help and support often can make the difference, such as discussing common possible side effects. Some methods require the provider to perform a procedure correctly, such as sterilization or IUD insertion. Short of giving instructions on performing procedures, this handbook offers the guidance and information that providers need to support effective and continuing contraceptive use.

3. New clients usually come for services with a method already in mind, and this is usually the best choice for them. Within the broad range of methods that a client can use safely, the client's purposes and preferences should govern family planning decisions. To find and use the most suitable method, a client needs good information and, often, help thinking through choices. This book provides information that client and provider may want to consider together.

4. Many continuing clients need little support, and for them convenient access is key. For ongoing clients who encounter problems or concerns, help and support are vital. This handbook provides counseling and treatment recommendations for these clients.

With the collaboration of the World Health Organization and many organizations, many experts worked together to create this book. The United States Agency for International Development is proud to support the work of many of the contributors' organizations and the publication of this book, as well as to have participated in developing its content. Together with the providers of family planning who use this book, we all endeavor to make the world a better place.

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What's New in This Handbook?

This new handbook on family planning methods and related topics is the first of its kind: Through an organized, collaborative process, experts from around the world have come to consensus on practical guidance that reflects the best available scientific evidence. The World Health Organization (WHO) convened this process. Many major technical assistance and professional organizations have endorsed and adopted this guidance.

This book serves as a quick-reference resource for all levels of health care workers. It is the successor to *The Essentials of Contraceptive Technology,* first published in 1997 by the Center for Communication Programs at Johns Hopkins Bloomberg School of Public Health. In format and organization it resembles the earlier handbook. At the same time, all of the content of *Essentials* has been re-examined, new evidence has been gathered, guidance has been revised where needed, and gaps have been filled. This handbook reflects the family planning guidance developed by WHO. Also, this book expands on the coverage of *Essentials:* It addresses briefly other needs of clients that come up in the course of providing family planning.

New WHO Guidance Since 2007

Since the handbook was first published in 2007, the Department of Reproductive Health and Research of WHO convened an expert Working Group in April 2008 and two technical consultations in October 2008 and January 2010 to address questions for the Medical Eligibility Criteria (MEC) and the Selected Practice Recommendations and a technical consultation in June 2009 on the provision of progestin-only injectables by community health workers. Also, the HIV Department of WHO convened an expert Working Group in October 2009 to update guidance on infant feeding and HIV. This 2011 printing of the Global Handbook reflects new guidance developed in these meetings. (See p. 354.) Updates include:

- A woman may have a repeat injection of depot-medroxyprogesterone acetate (DMPA) up to 4 weeks late. (Previous guidance said that she could have her DMPA reinjection up to 2 weeks late.) The guidance for reinjection of norethisterone enanthate (NET-EN) remains at up to 2 weeks late. (See p. 74.)

- During breastfeeding, antiretroviral (ARV) therapy for the mother, for the HIV-exposed infant, or for both can significantly reduce the chances of HIV transmission through breast milk. HIV-infected mothers should receive the appropriate ARV therapy and should exclusively breastfeed their infants for the first 6 months of life, then introduce appropriate complementary foods and continue breastfeeding for the first 12 months of life. (See p. 294.)

- Postpartum women who are not breastfeeding can generally start combined hormonal methods at 3 weeks (MEC category 2). However, some women who have additional risk factors for venous thromboembolism (VTE) generally should not start combined hormonal methods until 6 weeks after childbirth, depending on the number, severity, and combination of the risk factors (MEC category 2/3). These additional risk factors include previous VTE, thrombophilia, caesarean delivery, blood transfusion at delivery, postpartum hemorrhage, pre-eclampsia, obesity, smoking, and being bedridden. (See p. 325.)
- Women with deep vein thrombosis who are established on anticoagulant therapy generally can use progestin-only contraceptives (MEC category 2) but not combined hormonal methods (MEC category 4). (See p. 327.)
- Women with systemic lupus erythematosus generally can use any contraceptive except that: (a) A woman with positive (or unknown) antiphospholipid antibodies should not use combined hormonal methods (MEC category 4) and generally should not use progestin-only methods (MEC category 3). (b) A woman with severe thrombocytopenia generally should not start a progestin-only injectable or have a copper-bearing IUD inserted (MEC category 3). (See p. 328.)
- Women with AIDS who are treated with ritonavir-boosted protease inhibitors, a class of ARV drugs, generally should not use combined hormonal methods or progestin-only pills (MEC category 3). These ARV drugs may make these contraceptive methods less effective. These women can use progestin-only injectables, implants, and other methods. Women taking only other classes of ARVs can use any hormonal method. (See p. 330.)
- Women with chronic hepatitis or mild cirrhosis of the liver can use any contraceptive method (MEC category 1). (See p. 331.)
- Women taking medicines for seizures or rifampicin or rifabutin for tuberculosis or other conditions generally can use implants. (See p. 332.)

New Guidance for Community-Based Provision of Injectables

- Community-based provision of progestin-only injectable contraceptives by appropriately trained community health workers is safe, effective, and acceptable. Such services should be part of a family planning program offering a range of contraceptive methods. (See p. 63.)

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World Health Organization's 4 Cornerstones of Family Planning Guidance

This handbook is one of the World Health Organization's (WHO) 4 cornerstones of family planning guidance. Together, the 4 cornerstones support the safe and effective provision and use of family planning methods.

The first 2 cornerstones provide policy-makers and program managers with recommendations that can be used to establish or update national guidelines and program policies. The *Medical Eligibility Criteria for Contraceptive Use* (4th edition, 2010) provides guidance on whether people with certain medical conditions can safely and effectively use specific contraceptive methods. The *Selected Practice Recommendations for Contraceptive Use* (2nd edition, 2005) and the *Selected Practice Recommendations for Contraceptive Use: 2008 Update* answer specific questions about how to use various contraceptive methods. Both sets of guidance come from expert Working Group meetings convened by WHO.

The third cornerstone, the *Decision-Making Tool for Family Planning Clients and Providers,* incorporates the guidance of the first 2 cornerstones and reflects evidence on how best to meet clients' family planning needs. It is intended for use during counseling. The tool leads the provider and client through a structured yet tailored process that facilitates choosing and using a family planning method. The *Decision-Making Tool* also helps to guide return visits.

As the fourth cornerstone, *Family Planning: A Global Handbook for Providers* offers technical information to help health care providers deliver family planning methods appropriately and effectively. A thorough reference guide, the handbook provides specific guidance on 20 family planning methods and addresses many of providers' different needs, from correcting misunderstandings to managing side effects. Like the *Decision-Making Tool*, this handbook incorporates the guidance of the first 2 cornerstones. It also covers related health issues that may arise in the context of family planning.

The 4 cornerstones can be found on the WHO Web site at http://www.who.int/reproductionhealth/publications/family_planning/. The handbook can also be found on the Knowledge for Health Project Web site at http://www.fphandbook.org. Updates to the handbook and news about translations are posted on these Web sites. For information on ordering printed copies, see next page.

How to Obtain More Copies of This Book

The Knowledge for Health Project at Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs offers copies of *Family Planning: A Global Handbook for Providers* free of charge to readers in developing countries. All others, please contact the Knowledge for Health Project for more information. To order, please send your name, mailing address, e-mail address, and telephone number.

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CHAPTER 1

Combined Oral Contraceptives

Key Points for Providers and Clients

- **Take one pill every day.** For greatest effectiveness a woman must take pills daily and start each new pack of pills on time.
- **Bleeding changes are common but not harmful.** Typically, irregular bleeding for the first few months and then lighter and more regular bleeding.
- **Take any missed pill as soon as possible.** Missing pills risks pregnancy and may make some side effects worse.
- **Can be given to women at any time to start later.** If pregnancy cannot be ruled out, a provider can give her pills to take later, when her monthly bleeding begins.

What Are Combined Oral Contraceptives?

- Pills that contain low doses of 2 hormones—a progestin and an estrogen—like the natural hormones progesterone and estrogen in a woman's body.
- Combined oral contraceptives (COCs) are also called "the Pill," low-dose combined pills, OCPs, and OCs.
- Work primarily by preventing the release of eggs from the ovaries (ovulation).

How Effective?

Effectiveness depends on the user: Risk of pregnancy is greatest when a woman starts a new pill pack 3 or more days late, or misses 3 or more pills near the beginning or end of a pill pack.

- As commonly used, about 8 pregnancies per 100 women using COCs over the first year. This means that 92 of every 100 women using COCs will not become pregnant.
- When no pill-taking mistakes are made, less than 1 pregnancy per 100 women using COCs over the first year (3 per 1,000 women).

Return of fertility after COCs are stopped: No delay

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, and Health Risks

Side Effects (see Managing Any Problems, p. 17)

Some users report the following:

- Changes in bleeding patterns including:
  – Lighter bleeding and fewer days of bleeding
  – Irregular bleeding
  – Infrequent bleeding
  – No monthly bleeding
- Headaches
- Dizziness
- Nausea
- Breast tenderness
- Weight change (see Question 6, p. 22)
- Mood changes
- Acne (can improve or worsen, but usually improves)

Other possible physical changes:

- Blood pressure increases a few points (mm Hg). When increase is due to COCs, blood pressure declines quickly after use of COCs stops.

Why Some Women Say They Like Combined Oral Contraceptives

- Are controlled by the woman
- Can be stopped at any time without a provider's help
- Do not interfere with sex

Known Health Benefits

Help protect against:

- Risks of pregnancy
- Cancer of the lining of the uterus (endometrial cancer)
- Cancer of the ovary
- Symptomatic pelvic inflammatory disease

May help protect against:

- Ovarian cysts
- Iron-deficiency anemia

Reduce:

- Menstrual cramps
- Menstrual bleeding problems
- Ovulation pain
- Excess hair on face or body
- Symptoms of polycystic ovarian syndrome (irregular bleeding, acne, excess hair on face or body)
- Symptoms of endometriosis (pelvic pain, irregular bleeding)

Known Health Risks

Very rare:

- Blood clot in deep veins of legs or lungs (deep vein thrombosis or pulmonary embolism)

Extremely rare:

- Stroke
- Heart attack

See also Facts About Combined Oral Contraceptives and Cancer, p. 4.

Correcting Misunderstandings (see also Questions and Answers, p. 22)

Combined oral contraceptives:

- Do not build up in a woman's body. Women do not need a "rest" from taking COCs.
- Must be taken every day, whether or not a woman has sex that day.
- Do not make women infertile.
- Do not cause birth defects or multiple births.
- Do not change women's sexual behavior.
- Do not collect in the stomach. Instead, the pill dissolves each day.
- Do not disrupt an existing pregnancy.

Facts About Combined Oral Contraceptives and Cancer

Ovarian and endometrial cancer

- Use of COCs helps *protect* users from 2 kinds of cancer—cancer of the ovaries and cancer of the lining of the uterus (endometrial cancer).
- This protection continues for 15 or more years after stopping use.

Breast cancer

- Research findings about COCs and breast cancer are difficult to interpret:
  - Studies find that women who have used COCs more than 10 years ago face the same risk of breast cancer as similar women who have never used COCs. In contrast, current users of COCs and women who have used COCs within the past 10 years are slightly more likely to be diagnosed with breast cancer.
  - When a current or former COC user is diagnosed with breast cancer, the cancers are less advanced than cancers diagnosed in other women.
  - It is unclear whether these findings are explained by earlier detection of existing breast cancers among COC users or by a biologic effect of COCs on breast cancer.

Cervical cancer

- Cervical cancer is caused by certain types of human papillomavirus (HPV). HPV is a common sexually transmitted infection that usually clears on its own without treatment, but sometimes persists.
- Use of COCs for 5 years or more appears to speed up the development of persistent HPV infection into cervical cancer. The number of cervical cancers associated with COC use is thought to be very small.
- If cervical screening is available, providers can advise COC users—and all other women—to be screened every 3 years (or as national guidelines recommend) to detect any precancerous changes on the cervix, which can be removed. Factors known to increase cervical cancer risk include having many children and smoking (see Cervical Cancer, p. 284.)

Who Can and Cannot Use Combined Oral Contraceptives

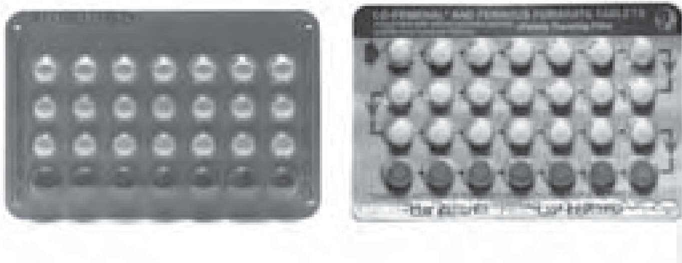
Safe and Suitable for Nearly All Women

Nearly all women can use COCs safely and effectively, including women who:

- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion or miscarriage
- Smoke cigarettes—if under 35 years old
- Have anemia now or had in the past
- Have varicose veins
- Are infected with HIV, whether or not on antiretroviral therapy, unless that therapy includes ritonavir (see Combined Oral Contraceptives for Women With HIV, p. 9)

Women can begin using COCs:

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)



Medical Eligibility Criteria for

Combined Oral Contraceptives

Ask the client the questions below about known medical conditions. Examinations and tests are not necessary. If she answers "no" to all of the questions, then she can start COCs if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start COCs. These questions also apply for the combined patch (see p. 102) and the combined vaginal ring (see p. 106).

1. Are you breastfeeding a baby less than 6 months old?

❑ NO ❑ **YES**

- If fully or nearly fully breastfeeding: Give her COCs and tell her to start taking them 6 months after giving birth or when breast milk is no longer the baby's main food—whichever comes first (see Fully or nearly fully breastfeeding, p. 10).
- If partially breastfeeding: She can start COCs as soon as 6 weeks after childbirth (see Partially breastfeeding, p. 11).

2. Have you had a baby in the last 3 weeks and you are not breastfeeding?

❑ NO ❑ **YES** Give her COCs now and tell her to start taking them 3 weeks after childbirth. (If there is an additional risk that she might develop a blood clot in a deep vein (deep vein thrombosis, or VTE), then she should not start COCs at 3 weeks after childbirth, but start at 6 weeks instead. These additional risk factors include previous VTE, thrombophilia, caesarean delivery, blood transfusion at delivery, postpartum hemorrhage, pre-eclampsia, obesity ($\geq$30 kg/m^2), smoking, and being bedridden for a prolonged time.)

3. Do you smoke cigarettes?

❑ NO ❑ **YES** If she is 35 years of age or older and smokes, do not provide COCs. Urge her to stop smoking and help her choose another method.

4. Do you have cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice]) Have you ever had jaundice when using COCs?

❑ NO ❑ **YES** If she reports serious active liver disease (jaundice, active hepatitis, severe cirrhosis, liver tumor) or ever had jaundice while using COCs, do not provide COCs. Help her choose a method without hormones. (She can use monthly injectables if she has had jaundice only with past COC use.)

5. Do you have high blood pressure?

❑ NO ❑ **YES** If you cannot check blood pressure and she reports a history of high blood pressure, or if she is being treated for high blood pressure, do not provide COCs. Refer her for a blood pressure check if possible or help her choose a method without estrogen.

Check blood pressure if possible:

- If her blood pressure is below 140/90 mm Hg, provide COCs.
- If her systolic blood pressure is 140 mm Hg or higher or diastolic blood pressure is 90 or higher, do not provide COCs. Help her choose a method without estrogen, but not progestin-only injectables if systolic blood pressure is 160 or higher or diastolic pressure is 100 or higher.

(One blood pressure reading in the range of 140–159/90–99 mm Hg is not enough to diagnose high blood pressure. Give her a backup method* to use until she can return for another blood pressure check, or help her choose another method now if she prefers. If her blood pressure at next check is below 140/90, she can use COCs.)

6. Have you had diabetes for more than 20 years or damage to your arteries, vision, kidneys, or nervous system caused by diabetes?

❑ NO ❑ **YES** Do not provide COCs. Help her choose a method without estrogen but not progestin-only injectables.

7. Do you have gallbladder disease now or take medication for gallbladder disease?

❑ NO ❑ **YES** Do not provide COCs. Help her choose another method but not the combined patch or combined vaginal ring.

8. Have you ever had a stroke, blood clot in your legs or lungs, heart attack, or other serious heart problems?

❑ NO ❑ **YES** If she reports heart attack, heart disease due to blocked or narrowed arteries, or stroke, do not provide COCs. Help her choose a method without estrogen but not progestin-only injectables. If she reports a current blood clot in the deep veins of the legs or lungs (not superficial clots), help her choose a method without hormones.

(Continued on next page)

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

9. Do you have or have you ever had breast cancer?

❑ NO ❑ **YES** Do not provide COCs. Help her choose a method without hormones.

10. Do you sometimes see a bright area of lost vision in the eye before a very bad headache (migraine aura)? Do you get throbbing, severe head pain, often on one side of the head, that can last from a few hours to several days and can cause nausea or vomiting (migraine headaches)? Such headaches are often made worse by light, noise, or moving about.

❑ NO ❑ **YES** If she has migraine aura at any age, do not provide COCs. If she has migraine headaches *without* aura *and* is age 35 or older, do not provide COCs. Help these women choose a method without estrogen. If she is under 35 and has migraine headaches without aura, she can use COCs (see Identifying Migraine Headaches and Auras, p. 368).

11. Are you taking medications for seizures? Are you taking rifampicin or rifabutin for tuberculosis or other illness?

❑ NO ❑ **YES** If she is taking barbiturates, carbamazepine, lamotrigine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin, or ritonavir, do not provide COCs. They can make COCs less effective. Help her choose another method but not progestin-only pills. If she is taking lamotrigine, help her choose a method without estrogen.

12. Are you planning major surgery that will keep you from walking for one week or more?

❑ NO ❑ **YES** If so, she can start COCs 2 weeks after the surgery. Until she can start COCs, she should use a backup method.

13. Do you have several conditions that could increase your chances of heart disease (coronary artery disease) or stroke, such as older age, smoking, high blood pressure, or diabetes?

❑ NO ❑ **YES** Do not provide COCs. Help her choose a method without estrogen but not progestin-only injectables.

Also, women should not use COCs if they report having thrombogenic mutations or lupus with positive (or unknown) antiphospholipid antibodies. For complete classifications, see Medical Eligibility Criteria for Contraceptive Use, p. 324. Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use COCs. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use COCs. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Not breastfeeding and less than 3 weeks since giving birth
- Not breastfeeding and between 3 and 6 weeks postpartum with additional risk that she might develop a blood clot in a deep vein (VTE)
- Primarily breastfeeding between 6 weeks and 6 months since giving birth
- Age 35 or older and smokes fewer than 15 cigarettes a day
- High blood pressure (systolic blood pressure between 140 and 159 mm Hg or diastolic blood pressure between 90 and 99 mm Hg)
- Controlled high blood pressure, where continuing evaluation is possible
- History of high blood pressure, where blood pressure cannot be taken (including pregnancy-related high blood pressure)
- History of jaundice while using COCs in the past
- Gall bladder disease (current or medically treated)
- Age 35 or older and has migraine headaches without aura
- Younger than age 35 and has migraine headaches without aura that have developed or have gotten worse while using COCs
- Had breast cancer more than 5 years ago, and it has not returned
- Diabetes for more than 20 years or damage to arteries, vision, kidneys, or nervous system caused by diabetes
- Multiple risk factors for arterial cardiovascular disease such as older age, smoking, diabetes, and high blood pressure
- Taking barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin, or ritonavir or ritonavir-boosted protease inhibitors. A backup contraceptive method should also be used because these medications reduce the effectiveness of COCs.
- Taking lamotrigine. Combined hormonal methods may make lamotrigine less effective.

Combined Oral Contraceptives for Women With HIV

- Women can safely use COCs even if they are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy unless their therapy includes ritonavir. Ritonavir may reduce the effectiveness of COCs. (See Medical Eligibility Criteria, p. 330.)
- Urge these women to use condoms along with COCs. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs. Condoms also provide extra contraceptive protection for women on ARV therapy.

Providing Combined Oral Contraceptives

When to Start

IMPORTANT: A woman can start using COCs any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372). Also, a woman can be given COCs at any time and told when to start taking them.

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 5 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 5 days after the start of her monthly bleeding, she can start COCs any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days of taking pills. (If you cannot be reasonably certain, give her COCs now and tell her to start taking them during her next monthly bleeding.) • If she is switching from an IUD, she can start COCs immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
Switching from a hormonal method	• Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from injectables, she can begin taking COCs when the repeat injection would have been given. No need for a backup method.
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• Give her COCs and tell her to start taking them 6 months after giving birth or when breast milk is no longer the baby's main food—whichever comes first.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Fully or nearly fully breastfeeding (continued)	
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can start COCs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days of taking pills. (If you cannot be reasonably certain, give her COCs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start COCs as advised for women having menstrual cycles (see previous page).
Partially breastfeeding	
Less than 6 weeks after giving birth	• Give her COCs and tell her to start taking them 6 weeks after giving birth. • Also give her a backup method to use until 6 weeks since giving birth if her monthly bleeding returns before this time.
More than 6 weeks after giving birth	• If her monthly bleeding has not returned, she can start COCs any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 7 days of taking pills. (If you cannot be reasonably certain, give her COCs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start COCs as advised for women having menstrual cycles (see previous page).
Not breastfeeding	
Less than 4 weeks after giving birth	• She can start COCs at any time on days 21–28 after giving birth. Give her pills any time to start during these 7 days. No need for a backup method. (If additional risk for VTE, wait until 6 weeks. See p. 6, Question 2.)

† *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give COCs at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

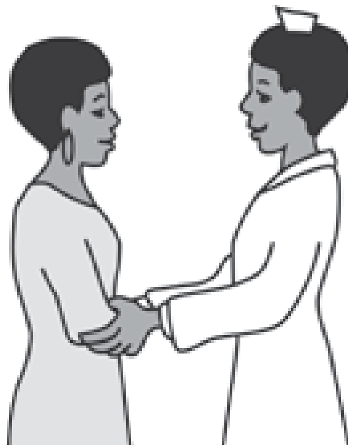
Woman's situation	When to start
Not breastfeeding (continued)	
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can start COCs any time it is reasonably certain she is not pregnant.[†] She will need a backup method for the first 7 days of taking pills. (If you cannot be reasonably certain, give her COCs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start COCs as advised for women having menstrual cycles (see p. 10).
No monthly bleeding (not related to childbirth or breastfeeding)	• She can start COCs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days of taking pills.
After miscarriage or abortion	• Immediately. If she is starting within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can start COCs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days of taking pills. (If you cannot be reasonably certain, give her COCs now and tell her to start taking them during her next monthly bleeding.)
After taking emergency contraceptive pills (ECPs)	• She can start COCs the day after she finishes taking the ECPs. There is no need to wait for her next monthly bleeding to start her pills. – A new COC user should begin a new pill pack. – A continuing user who needed ECPs due to pill-taking errors can continue where she left off with her current pack. – All women will need to use a backup method for the first 7 days of taking pills.

[†] *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give COCs at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

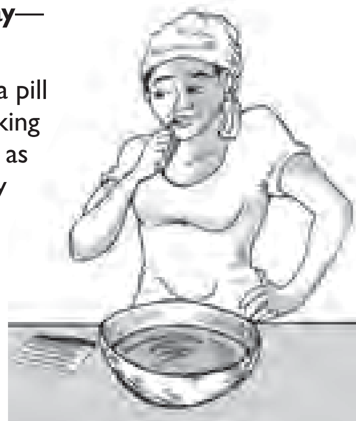
Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes and other side effects is an important part of providing the method. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• In the first few months, bleeding at unexpected times (irregular bleeding). Then lighter, shorter, and more regular monthly bleeding. • Headaches, breast tenderness, weight change, and possibly other side effects.
Explain about these side effects	• Side effects are not signs of illness. • Most side effects usually become less or stop within the first few months of using COCs. • Common, but some women do not have them.
Explain what to do in case of side effects	• Keep taking COCs. Skipping pills risks pregnancy and can make some side effects worse. • Take each pill at the same time every day to help reduce irregular bleeding and also help with remembering. • Take pills with food or at bedtime to help avoid nausea. • The client can come back for help if side effects bother her.



Explaining How to Use

1. Give pills	• Give as many packs as possible—even as much as a year's supply (13 packs).
2. Explain pill pack	• Show which kind of pack—21 pills or 28 pills. With 28-pill packs, point out that the last 7 pills are a different color and do not contain hormones. • Show how to take the first pill from the pack and then how to follow the directions or arrows on the pack to take the rest of the pills.
3. Give key instruction	• **Take one pill each day**—until the pack is empty. • Discuss cues for taking a pill every day. Linking pill-taking to a daily activity—such as cleaning her teeth—may help her remember. • Taking pills at the same time each day helps to remember them. It also may help reduce some side effects. 
4. Explain starting next pack	• 28-pill packs: When she finishes one pack, she should take the first pill from the next pack on the very next day. • 21-pill packs: After she takes the last pill from one pack, she should wait 7 days—no more—and then take the first pill from the next pack. • It is very important to start the next pack on time. Starting a pack late risks pregnancy.
5. Provide backup method and explain use	• Sometimes she may need to use a backup method, such as when she misses pills. • Backup methods include abstinence, male or female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. Give her condoms, if possible.

Supporting the User

Managing Missed Pills

It is easy to forget a pill or to be late in taking it. COC users should know what to do if they forget to take pills. **If a woman misses one or more pills, she should follow the instructions below.** Use the tool on the inside back cover to help explain these instructions to the client.

Making Up Missed Pills With 30–35 µg Estrogen‡

Key message	• **Take a missed hormonal pill as soon as possible.** • Keep taking pills as usual, one each day. (She may take 2 pills at the same time or on the same day.)
Missed 1 or 2 pills? Started new pack 1 or 2 days late?	• Take a hormonal pill as soon as possible. • Little or no risk of pregnancy.
Missed pills 3 or more days in a row in the first or second week? Started new pack 3 or more days late?	• Take a hormonal pill as soon as possible. • Use a backup method for the next 7 days. • Also, if she had sex in the past 5 days, can consider ECPs (see Emergency Contraceptive Pills, p. 45).
Missed 3 or more pills in the third week?	• Take a hormonal pill as soon as possible. • Finish all hormonal pills in the pack. Throw away the 7 nonhormonal pills in a 28-pill pack. • Start a new pack the next day. • Use a backup method for the next 7 days. • Also, if she had sex in the past 5 days, can consider ECPs (see Emergency Contraceptive Pills, p. 45).
Missed any non-hormonal pills? (last 7 pills in 28-pill pack)	• Discard the missed nonhormonal pill(s). • Keep taking COCs, one each day. Start the new pack as usual.
Severe vomiting or diarrhea	• If she vomits within 2 hours after taking a pill, she should take another pill from her pack as soon as possible, then keep taking pills as usual. • If she has vomiting or diarrhea for more than 2 days, follow instructions for 3 or more missed pills, above.

‡ *For pills with 20 µg of estrogen or less, women missing one pill should follow the same guidance as for missing one or two 30–35 µg pills. Women missing 2 or more pills should follow the same guidance as for missing 3 or more 30–35 µg pills.*

"Come Back Any Time": Reasons to Return

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; she has any major change in health status; or she thinks she might be pregnant. Also if:

- She lost her pills or started a new pack more than 3 days late and also had sex during this time. She may wish to consider ECPs (see Emergency Contraceptive Pills, p. 45).

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Planning the Next Visit

1. Encourage her to come back for more pills before she uses up her supply of pills.
2. An annual visit is recommended.
3. Some women can benefit from contact after 3 months of COC use. This offers an opportunity to answer any questions, help with any problems, and check on correct use.

Helping Continuing Users

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, next page).
3. Ask if she often has problems remembering to take a pill every day. If so, discuss ways to remember, making up missed pills, and ECPs, or choosing another method.
4. Give her more pill packs—a full year's supply (13 packs), if possible. Plan her next resupply visit before she will need more pills.
5. Every year or so, check blood pressure if possible (see Medical Eligibility Criteria, Question 5, p. 7).
6. Ask a long-term client if she has had any new health problems since her last visit. Address problems as appropriate. For new health problems that may require switching methods, see p. 19.
7. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.

Managing Any Problems

Problems Reported as Side Effects or Problems With Use

May or may not be due to the method.

- Problems with side effects affect women's satisfaction and use of COCs. They deserve the provider's attention. If the client reports side effects or problems, listen to her concerns, give her advice, and, if appropriate, treat.
- Encourage her to keep taking a pill every day even if she has side effects. Missing pills can risk pregnancy and may make some side effects worse.
- Many side effects will subside after a few months of use. For a woman whose side effects persist, give her a different COC formulation, if available, for at least 3 months.
- Offer to help the client choose another method—now, if she wishes, or if problems cannot be overcome.

Missed pills

- See Managing Missed Pills, p. 15.

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using COCs experience irregular bleeding. It is not harmful and usually becomes less or stops after the first few months of use.
- Other possible causes of irregular bleeding include:
  – Missed pills
  – Taking pills at different times every day
  – Vomiting or diarrhea
  – Taking anticonvulsants or rifampicin (see Starting treatment with anticonvulsants or rifampicin, p. 20)
- To reduce irregular bleeding:
  – Urge her to take a pill each day and at the same time each day.
  – Teach her to make up for missed pills properly, including after vomiting or diarrhea (see Managing Missed Pills, p. 15).
  – For modest short-term relief, she can try 800 mg ibuprofen 3 times daily after meals for 5 days or other nonsteroidal anti-inflammatory drug (NSAID), beginning when irregular bleeding starts. NSAIDs provide some relief of irregular bleeding for implants, progestin-only injectables, and IUDs, and they may also help for COCs.
  – If she has been taking the pills for more than a few months and NSAIDs do not help, give her a different COC formulation, if available. Ask her to try the new pills for at least 3 months.

- If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, next page).

No monthly bleeding

- Ask if she is having any bleeding at all. (She may have just a small stain on her underclothing and not recognize it as monthly bleeding.) If she is, reassure her.
- Reassure her that some women using COCs stop having monthly bleeding, and this is not harmful. There is no need to lose blood every month. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. (Some women are happy to be free from monthly bleeding.)
- Ask if she has been taking a pill every day. If so, reassure her that she is not likely to be pregnant. She can continue taking her COCs as before.
- Did she skip the 7-day break between packs (21-day packs) or skip the 7 nonhormonal pills (28-day pack)? If so, reassure her that she is not pregnant. She can continue using COCs.
- If she has missed hormonal pills or started a new pack late:
  - She can continue using COCs.
  - Tell a woman who has missed 3 or more pills or started a new pack 3 or more days late to return if she has signs and symptoms of early pregnancy (see p. 371 for common signs and symptoms of pregnancy).
  - See p. 15 for instructions on how to make up for missed pills.

Ordinary headaches (nonmigrainous)

- Try the following (one at a time):
  - Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
  - Some women get headaches during the hormone-free week (the 7 days a woman does not take hormonal pills). Consider extended use (see Extended and Continuous Use of Combined Oral Contraceptives, p. 21).
- Any headaches that get worse or occur more often during COC use should be evaluated.

Nausea or dizziness

- For nausea, suggest taking COCs at bedtime or with food.

If symptoms continue:

- Consider locally available remedies.
- Consider extended use if her nausea comes after she starts a new pill pack (see Extended and Continuous Use of Combined Oral Contraceptives, p. 21).

Breast tenderness

- Recommend that she wear a supportive bra (including during strenuous activity and sleep).
- Try hot or cold compresses.
- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Consider locally available remedies.

Weight change

- Review diet and counsel as needed.

Mood changes or changes in sex drive

- Some women have changes in mood during the hormone-free week (the 7 days when a woman does not take hormonal pills). Consider extended use (see Extended and Continuous Use of Combined Oral Contraceptives, p. 21).
- Ask about changes in her life that could affect her mood or sex drive, including changes in her relationship with her partner. Give her support as appropriate.
- Clients who have serious mood changes such as major depression should be referred for care.
- Consider locally available remedies.

Acne

- Acne usually improves with COC use. It may worsen for a few women.
- If she has been taking pills for more than a few months and acne persists, give her a different COC formulation, if available. Ask her to try the new pills for at least 3 months.
- Consider locally available remedies.

New Problems That May Require Switching Methods

May or may not be due to the method.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method) **or heavy or prolonged bleeding**

- Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate.
- She can continue using COCs while her condition is being evaluated.
- If bleeding is caused by sexually transmitted infection or pelvic inflammatory disease, she can continue using COCs during treatment.

Starting treatment with anticonvulsants, rifampicin, rifabutin, or ritonavir

- Barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin, and ritonavir may make COCs less effective. Combined hormonal methods, including combined pills and monthly injectables, may make lamotrigine less effective. If using these medications long-term, she may want a different method, such as a progestin-only injectable or a copper-bearing or LNG-IUD.
- If using these medications short-term, she can use a backup method along with COCs for greater protection from pregnancy.

Migraine headaches (see Identifying Migraine Headaches and Auras, p. 368)

- Regardless of her age, a woman who develops migraine headaches, with or without aura, or whose migraine headaches become worse while using COCs should stop using COCs.
- Help her choose a method without estrogen.

Circumstances that will keep her from walking for one week or more

- If she is having major surgery, or her leg is in a cast, or for other reasons she will be unable to move about for several weeks, she should:
  - Tell her doctors that she is using COCs.
  - Stop taking COCs and use a backup method during this period.
  - Restart COCs 2 weeks after she can move about again.

Certain serious health conditions (suspected heart or serious liver disease, high blood pressure, blood clots in deep veins of legs or lungs, stroke, breast cancer, damage to arteries, vision, kidneys, or nervous system caused by diabetes, or gall bladder disease). See Signs and Symptoms of Serious Health Conditions, p. 320.

- Tell her to stop taking COCs.
- Give her a backup method to use until the condition is evaluated.
- Refer for diagnosis and care if not already under care.

Suspected pregnancy

- Assess for pregnancy.
- Tell her to stop taking COCs if pregnancy is confirmed.
- There are no known risks to a fetus conceived while a woman is taking COCs (see Question 5, p. 22).

Extended and Continuous Use of Combined Oral Contraceptives

Some COC users do not follow the usual cycle of 3 weeks taking hormonal pills followed by one week without hormones. Some women take hormonal pills for 12 weeks without a break, followed by one week of nonhormonal pills (or no pills). This is extended use. Other women take hormonal pills without any breaks at all. This is continuous use. Monophasic pills are recommended for such use (see Question 16, p. 24).

Women easily manage taking COCs in different ways when properly advised how to do so. Many women value controlling when they have monthly bleeding—if any—and tailoring pill use as they wish.

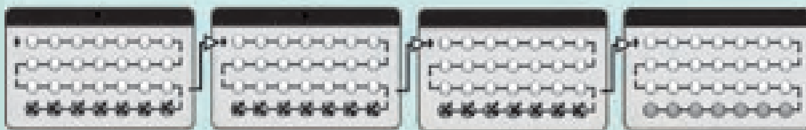
Benefits of Extended and Continuous Use

- Women have vaginal bleeding only 4 times a year or not at all.
- Reduces how often some women suffer headaches, premenstrual syndrome, mood changes, and heavy or painful bleeding during the week without hormonal pills.

Disadvantages of Extended and Continuous Use

- Irregular bleeding may last as long as the first 6 months of use—especially among women who have never before used COCs.
- More supplies needed—15 to 17 packs every year instead of 13.

Extended Use Instructions



- Skip the last week of pills (without hormones) in 3 packs in a row. (21-day users skip the 7-day waits between the first 3 packs.) No backup method is needed during this time.
- Take all 4 weeks of pills in the 4th pack. (21-day users take all 3 weeks of pills in the 4th pack.) Expect some bleeding during this 4th week.
- Start the next pack of pills the day after taking the last pill in the 4th pack. (21-day users wait 7 days before starting the next pack.)

Continuous Use Instructions

Take one hormonal pill every day for as long as she wishes to use COCs. If bothersome irregular bleeding occurs, a woman can stop taking pills for 3 or 4 days and then start taking hormonal pills continuously again.

Questions and Answers About Combined Oral Contraceptives

1. Should a woman take a "rest" from COCs after taking them for a time?

No. There is no evidence that taking a "rest" is helpful. In fact, taking a "rest" from COCs can lead to unintended pregnancy. COCs can safely be used for many years without having to stop taking them periodically.

2. If a woman has been taking COCs for a long time, will she still be protected from pregnancy after she stops taking COCs?

No. A woman is protected only as long as she takes her pills regularly.

3. How long does it take to become pregnant after stopping COCs?

Women who stop using COCs can become pregnant as quickly as women who stop nonhormonal methods. COCs do not delay the return of a woman's fertility after she stops taking them. The bleeding pattern a woman had before she used COCs generally returns after she stops taking them. Some women may have to wait a few months before their usual bleeding pattern returns.

4. Do COCs cause abortion?

No. Research on COCs finds that they do not disrupt an existing pregnancy. They should not be used to try to cause an abortion. They will not do so.

5. Do COCs cause birth defects? Will the fetus be harmed if a woman accidentally takes COCs while she is pregnant?

No. Good evidence shows that COCs will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while taking COCs or accidentally starts to take COCs when she is already pregnant.

6. Do COCs cause women to gain or lose a lot of weight?

No. Most women do not gain or lose weight due to COCs. Weight changes naturally as life circumstances change and as people age. Because these changes in weight are so common, many women think that COCs cause these gains or losses in weight. Studies find, however, that, on average, COCs do not affect weight. A few women experience sudden changes in weight when using COCs. These changes reverse after they stop taking COCs. It is not known why these women respond to COCs in this way.

7. Do COCs change women's mood or sex drive?

Generally, no. Some women using COCs report these complaints. The great majority of COC users do not report any such changes, however, and some report that both mood and sex drive improve. It is difficult to tell whether such changes are due to the COCs or to other reasons. Providers can help a client with these problems (see Mood changes or changes in sex drive, p. 19). There is no evidence that COCs affect women's sexual behavior.

8. What can a provider say to a client asking about COCs and breast cancer?

The provider can point out that both COC users and women who do not use COCs can have breast cancer. In scientific studies breast cancer was slightly more common among women using COCs and those who had used COCs in the past 10 years than among other women. Scientists do not know whether or not COCs actually caused the slight increase in breast cancers. It is possible that the cancers were already there before COC use but were found sooner in COC users (see Facts About Combined Oral Contraceptives and Cancer, p. 4).

9. Can COCs be used as a pregnancy test?

No. A woman may experience some vaginal bleeding (a "withdrawal bleed") as a result of taking several COCs or one full cycle of COCs, but studies suggest that this practice does not accurately identify who is or is not pregnant. Thus, giving a woman COCs to see if she has bleeding later is not recommended as a way to tell if she is pregnant. COCs should not be given to women as a pregnancy test of sorts because they do not produce accurate results.

10. Must a woman have a pelvic examination before she can start COCs or at follow-up visits?

No. Instead, asking the right questions usually can help to make reasonably certain that a woman is not pregnant (see Pregnancy Checklist, p. 372). No condition that could be detected by a pelvic examination rules out COC use.

11. Can women with varicose veins use COCs?

Yes. COCs are safe for women with varicose veins. Varicose veins are enlarged blood vessels close to the surface of the skin. They are not dangerous. They are not blood clots, nor are these veins the deep veins in the legs where a blood clot can be dangerous (deep vein thrombosis). A woman who has or has had deep vein thrombosis should not use COCs.

12. Can a woman safely take COCs throughout her life?

Yes. There is no minimum or maximum age for COC use. COCs can be an appropriate method for most women from onset of monthly bleeding (menarche) to menopause (see Women Near Menopause, p. 272).

13. Can women who smoke use COCs safely?

Women younger than age 35 who smoke can use low-dose COCs. Women age 35 and older who smoke should choose a method without estrogen or, if they smoke fewer than 15 cigarettes a day, monthly injectables. Older women who smoke can take the progestin-only pill if they prefer pills. All women who smoke should be urged to stop smoking.

14. What if a client wants to use COCs but it is not reasonably certain that she is not pregnant after using the pregnancy checklist?

If pregnancy tests are not available, a woman can be given COCs to take home with instructions to begin their use within 5 days after the start of her next monthly bleeding. She should use a backup method until then.

15. Can COCs be used as emergency contraceptive pills (ECPs) after unprotected sex?

Yes. As soon as possible, but no more than 5 days after unprotected sex, a woman can take COCs as ECPs (see Emergency Contraceptive Pills, Pill Formulations and Dosing, p. 56). Progestin-only pills, however, are more effective and cause fewer side effects such as nausea and stomach upset.

16. What are the differences among monophasic, biphasic, and triphasic pills?

Monophasic pills provide the same amount of estrogen and progestin in every hormonal pill. Biphasic and triphasic pills change the amount of estrogen and progestin at different points of the pill-taking cycle. For biphasic pills, the first 10 pills have one dosage, and then the next 11 pills have another level of estrogen and progestin. For triphasic pills, the first 7 or so pills have one dosage, the next 7 pills have another dosage, and the last 7 hormonal pills have yet another dosage. All prevent pregnancy in the same way. Differences in side effects, effectiveness, and continuation appear to be slight.

17. Is it important for a woman to take her COCs at the same time each day?

Yes, for 2 reasons. Some side effects may be reduced by taking the pill at the same time each day. Also, taking a pill at the same time each day can help women remember to take their pills more consistently. Linking pill taking with a daily activity also helps women remember to take their pills.

Progestin-Only Pills

This chapter focuses on progestin-only pills for breastfeeding women. Women who are not breastfeeding also can use progestin-only pills. Guidance that differs for women who are not breastfeeding is noted.

Key Points for Providers and Clients

- **Take one pill every day.** No breaks between packs.
- **Safe for breastfeeding women and their babies.** Progestin-only pills do not affect milk production.
- **Add to the contraceptive effect of breastfeeding.** Together, they provide effective pregnancy protection.
- **Bleeding changes are common but not harmful**. Typically, pills lengthen how long breastfeeding women have no monthly bleeding. For women having monthly bleeding, frequent or irregular bleeding is common.
- **Can be given to a woman at any time to start later.** If pregnancy cannot be ruled out, a provider can give her pills to take later, when her monthly bleeding begins.

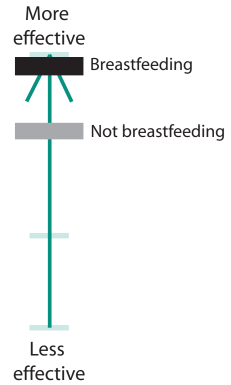
What Are Progestin-Only Pills?

- Pills that contain very low doses of a progestin like the natural hormone progesterone in a woman's body.
- Do not contain estrogen, and so can be used throughout breastfeeding and by women who cannot use methods with estrogen.
- Progestin-only pills (POPs) are also called "minipills" and progestin-only oral contraceptives.
- Work primarily by:
  - Thickening cervical mucus (this blocks sperm from meeting an egg)
  - Disrupting the menstrual cycle, including preventing the release of eggs from the ovaries (ovulation)

How Effective?

Effectiveness depends on the user: For women who have monthly bleeding, risk of pregnancy is greatest if pills are taken late or missed completely.

Breastfeeding women:



- As commonly used, about 1 pregnancy per 100 women using POPs over the first year. This means that 99 of every 100 women will not become pregnant.
- When pills are taken every day, less than 1 pregnancy per 100 women using POPs over the first year (3 per 1,000 women).

Less effective for women not breastfeeding:

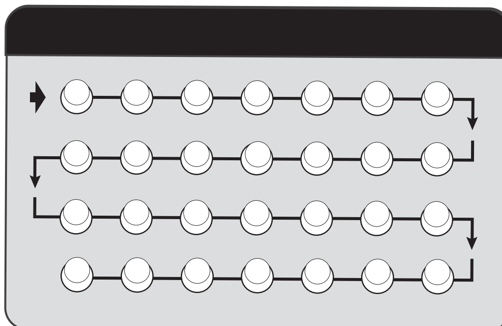
- As commonly used, about 3 to 10 pregnancies per 100 women using POPs over the first year. This means that 90 to 97 of every 100 women will not become pregnant.
- When pills are taken every day at the same time, less than 1 pregnancy per 100 women using POPs over the first year (9 per 1,000 women).

Return of fertility after POPs are stopped: No delay

Protection against sexually transmitted infections (STIs): None

Why Some Women Say They Like Progestin-Only Pills

- Can be used while breastfeeding
- Can be stopped at any time without a provider's help
- Do not interfere with sex
- Are controlled by the woman



Side Effects, Health Benefits, and Health Risks

Side Effects (see Managing Any Problems, p. 38)

Some users report the following:

- Changes in bleeding patterns including:
  - For breastfeeding women, longer delay in return of monthly bleeding after childbirth (lengthened postpartum amenorrhea)
  - Frequent bleeding
  - Irregular bleeding
  - Infrequent bleeding
  - Prolonged bleeding
  - No monthly bleeding

  Breastfeeding also affects a woman's bleeding patterns.
- Headaches
- Dizziness
- Mood changes
- Breast tenderness
- Abdominal pain
- Nausea

Other possible physical changes:

- For women not breastfeeding, enlarged ovarian follicles

Known Health Benefits

Help protect against:

- Risks of pregnancy

Known Health Risks

None

Correcting Misunderstandings (see also Questions and Answers, p. 42)

Progestin-only pills:

- Do not cause a breastfeeding woman's milk to dry up.
- Must be taken every day, whether or not a woman has sex that day.
- Do not make women infertile.
- Do not cause diarrhea in breastfeeding babies.
- Reduce the risk of ectopic pregnancy.

Who Can and Cannot Use Progestin-Only Pills

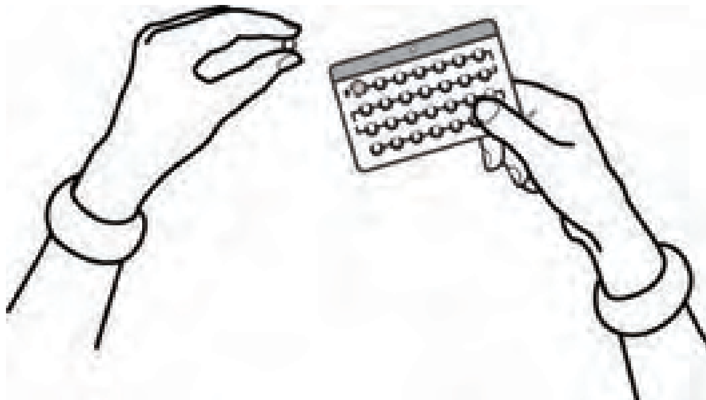
Safe and Suitable for Nearly All Women

Nearly all women can use POPs safely and effectively, including women who:

- Are breastfeeding (starting as soon as 6 weeks after childbirth)
- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion, miscarriage, or ectopic pregnancy
- Smoke cigarettes, regardless of woman's age or number of cigarettes smoked
- Have anemia now or had in the past
- Have varicose veins
- Are infected with HIV, whether or not on antiretroviral therapy, unless that therapy includes ritonavir (see Progestin-Only Pills for Women With HIV, p. 30)

Women can begin using POPs:

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)



Medical Eligibility Criteria for

Progestin-Only Pills

Ask the client the questions below about known medical conditions. Examinations and tests are not necessary. If she answers "no" to all of the questions, then she can start POPs if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start POPs.

1. Are you breastfeeding a baby less than 6 weeks old?

❑ NO ❑ **YES** She can start taking POPs as soon as 6 weeks after childbirth. Give her POPs now and tell her when to start taking them (see Fully or nearly fully breastfeeding or Partially breastfeeding, p. 31).

2. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])

❑ NO ❑ **YES** If she reports serious active liver disease (jaundice, severe cirrhosis, liver tumor), do not provide POPs. Help her choose a method without hormones.

3. Do you have a serious problem now with a blood clot in your legs or lungs?

❑ NO ❑ **YES** If she reports a current blood clot (not superficial clots), and she is not on anticoagulant therapy, do not provide POPs. Help her choose a method without hormones.

4. Are you taking medication for seizures? Are you taking rifampicin or rifabutin for tuberculosis or other illness?

❑ NO ❑ **YES** If she is taking barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin, or ritonavir, do not provide POPs. They can make POPs less effective. Help her choose another method but not combined oral contraceptives.

5. Do you have or have you ever had breast cancer?

❑ NO ❑ **YES** Do not provide POPs. Help her choose a method without hormones.

Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

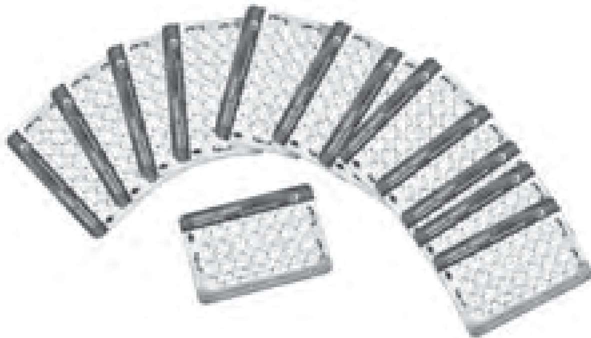
Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use POPs. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use POPs. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Breastfeeding and less than 6 weeks since giving birth
- Acute blood clot in deep veins of legs or lungs
- Had breast cancer more than 5 years ago, and it has not returned
- Severe liver disease, infection, or tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies
- Taking barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin. or ritonavir or ritonavir-boosted protease inhibitors. A backup contraceptive method should also be used because these medications reduce the effectiveness of POPs.

Progestin-Only Pills for Women With HIV

- Women can safely use POPs even if they are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy unless their therapy includes ritonavir. Ritonavir may reduce the effectiveness of POPs. (See Medical Eligibility Criteria, p. 330.)
- Urge these women to use condoms along with POPs. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs. Condoms also provide extra contraceptive protection for women on ARV therapy.
- For appropriate breastfeeding practices for women with HIV, see Maternal and Newborn Health, Preventing Mother-to-Child Transmission of HIV, p. 294.



Providing Progestin-Only Pills

When to Start

IMPORTANT: A woman can start using POPs any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372). Also, a woman can be given POPs at any time and told when to start taking them.

Woman's situation	When to start
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• If she gave birth less than 6 weeks ago, give her POPs and tell her to start taking them 6 weeks after giving birth. • If her monthly bleeding has not returned, she can start POPs any time between 6 weeks and 6 months. No need for a backup method. • If her monthly bleeding has returned, she can start POPs as advised for women having menstrual cycles (see p. 33).
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can start POPs any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 2 days of taking pills. (If you cannot be reasonably certain, give her POPs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start POPs as advised for women having menstrual cycles (see p. 33).
Partially breastfeeding	
Less than 6 weeks after giving birth	• Give her POPs and tell her to start taking them 6 weeks after giving birth. • Also give her a backup method to use until 6 weeks since giving birth if her monthly bleeding returns before this time.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Partially breastfeeding (continued)	
More than 6 weeks after giving birth	• If her monthly bleeding has not returned, she can start POPs any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 2 days of taking pills. (If you cannot be reasonably certain, give her POPs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start POPs as advised for women having menstrual cycles (see next page).
Not breastfeeding	
Less than 4 weeks after giving birth	• She can start POPs at any time. No need for a backup method.
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can start POPs any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 2 days of taking pills. (If you cannot be reasonably certain, give her POPs now and tell her to start taking them during her next monthly bleeding.) • If her monthly bleeding has returned, she can start POPs as advised for women having menstrual cycles (see next page).
Switching from a hormonal method	• Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from injectables, she can begin taking POPs when the repeat injection would have been given. No need for a backup method.

† *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may allow a woman to start POPs at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 5 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 5 days after the start of her monthly bleeding, she can start POPs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 2 days of taking pills. (If you cannot be reasonably certain, give her POPs now and tell her to start taking them during her next monthly bleeding.) • If she is switching from an IUD, she can start POPs immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
No monthly bleeding (not related to childbirth or breastfeeding)	• She can start POPs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 2 days of taking pills.
After miscarriage or abortion	• Immediately. If she is starting within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can start POPs any time it is reasonably certain she is not pregnant. She will need a backup method for the first 2 days of taking pills. (If you cannot be reasonably certain, give her POPs now and tell her to start taking them during her next monthly bleeding.)
After taking emergency contraceptive pills (ECPs)	• She can start POPs the day after she finishes taking the ECPs. There is no need to wait for her next monthly bleeding to start her pills. – A new POP user should begin a new pill pack. – A continuing user who needed ECPs due to pill-taking errors can continue where she left off with her current pack. – All women will need to use a backup method for the first 2 days of taking pills.

Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes and other side effects is an important part of providing the method. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• Breastfeeding women normally do not have monthly bleeding for several months after giving birth. POPs lengthen this period of time. • Women who are not breastfeeding may have frequent or irregular bleeding for the first several months, followed by regular bleeding or continued irregular bleeding. • Headaches, dizziness, breast tenderness, and possibly other side effects.
Explain about these side effects	• Side effects are not signs of illness. • Usually become less or stop within the first few months of using POPs. Bleeding changes, however, usually persist. • Common, but some women do not have them.
Explain what to do in case of side effects	• Keep taking POPs. Skipping pills risks pregnancy. • Try taking pills with food or at bedtime to help avoid nausea. • The client can come back for help if side effects bother her.

Explaining How to Use

1. Give pills	• Give as many packs as possible—even as much as a year's supply (11 or 13 packs).
2. Explain pill pack	• Show which kind of pack—28 pills or 35 pills. • Explain that all pills in POP packs are the same color and all are active pills, containing a hormone that prevents pregnancy. • Show how to take the first pill from the pack and then how to follow the directions or arrows on the pack to take the rest of the pills.
3. Give key instruction	• **Take one pill each day**—until the pack is empty. • Discuss cues for taking a pill every day. Linking pill-taking to a daily activity—such as cleaning her teeth—may help her remember. • Taking pills at the same time each day helps to remember them.
4. Explain starting next pack	• When she finishes one pack, she should take the first pill from the next pack on the very next day. • It is very important to start the next pack on time. Starting a pack late risks pregnancy.
5. Provide backup method and explain use	• Sometimes she may need to use a backup method, such as when she misses pills. • Backup methods include abstinence, male or female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. Give her condoms, if possible.
6. Explain that effectiveness decreases when breastfeeding stops	• Without the additional protection of breastfeeding itself, POPs are not as effective as most other hormonal methods. • When she stops breastfeeding, she can continue taking POPs if she is satisfied with the method, or she is welcome to come back for another method.

Supporting the User

Managing Missed Pills

It is easy to forget a pill or to be late in taking it. POP users should know what to do if they forget to take pills. **If a woman is 3 or more hours late taking a pill (12 or more hours late taking a POP containing desogestrel 75 mg), or if she misses a pill completely, she should follow the instructions below.** For breastfeeding women, whether missing a pill places her at risk of pregnancy depends on whether or not her monthly bleeding has returned.

Making Up Missed Progestin-Only Pills

Key message	• **Take a missed pill as soon as possible.** • Keep taking pills as usual, one each day. (She may take 2 pills at the same time or on the same day.)
Do you have monthly bleeding regularly?	• If yes, she also should use a backup method for the next 2 days. • Also, if she had sex in the past 5 days, can consider taking ECPs (see Emergency Contraceptive Pills, p. 45).
Severe vomiting or diarrhea	• If she vomits within 2 hours after taking a pill, she should take another pill from her pack as soon as possible, and keep taking pills as usual. • If her vomiting or diarrhea continues, follow the instructions for making up missed pills above.

"Come Back Any Time": Reasons to Return

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; she has a major change in health status; or she thinks she might be pregnant. Also if:

- She has stopped breastfeeding and wants to switch to another method.
- For a woman who has monthly bleeding: If she took a pill more than 3 hours late or missed one completely, and also had sex during this time, she may wish to consider ECPs (see Emergency Contraceptive Pills, p. 45).

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Planning the Next Visit

1. Encourage her to come back for more pills before she uses up her supply of pills.
2. Contacting women after the first 3 months of POP use is recommended. This offers an opportunity to answer any questions, help with any problems, and check on correct use.

Helping Continuing Users

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, p. 38).
3. Ask if she often has problems remembering to take a pill every day. If so, discuss ways to remember, making up for missed pills, and ECPs, or choosing another method.
4. Give her more pill packs—as much as a full year's supply (11 or 13 packs), if possible. Plan her next resupply visit before she will need more pills.
5. Ask a long-term client if she has had any new health problems since her last visit. Address problems as appropriate. For new health problems that may require switching methods, see p. 41.
6. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.

Managing Any Problems

Problems Reported as Side Effects or Problems With Use

May or may not be due to the method.

- Problems with side effects affect women's satisfaction and use of POPs. They deserve the provider's attention. If the client reports side effects or problems, listen to her concerns, give her advice, and, if appropriate, treat.
- Encourage her to keep taking a pill every day even if she has side effects. Missing pills can risk pregnancy.
- Many side effects will subside after a few months of use. For a woman whose side effects persist, give her a different POP formulation, if available, for at least 3 months.
- Offer to help the client choose another method—now, if she wishes, or if problems cannot be overcome.

No monthly bleeding

- Breastfeeding women:
  - Reassure her that this is normal during breastfeeding. It is not harmful.
- Women not breastfeeding:
  - Reassure her that some women using POPs stop having monthly bleeding, and this is not harmful. There is no need to lose blood every month. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. (Some women are happy to be free from monthly bleeding.)

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using POPs experience irregular bleeding—whether breastfeeding or not. (Breastfeeding itself also can cause irregular bleeding.) It is not harmful and sometimes becomes less or stops after the first several months of use. Some women have irregular bleeding the entire time they are taking POPs, however.
- Other possible causes of irregular bleeding include:
  - Vomiting or diarrhea
  - Taking anticonvulsants or rifampicin (see Starting treatment with anticonvulsants or rifampicin, p. 41)
- To reduce irregular bleeding:
  - Teach her to make up for missed pills properly, including after vomiting or diarrhea (see Managing Missed Pills, p. 36).
  - For modest short-term relief she can try 800 mg ibuprofen 3 times daily after meals for 5 days or other nonsteroidal anti-inflammatory drug (NSAID), beginning when irregular bleeding starts. NSAIDs

provide some relief of irregular bleeding for implants, progestin-only injectables, and IUDs, and they may also help POP users.

- If she has been taking the pills for more than a few months and NSAIDs do not help, give her a different POP formulation, if available. Ask her to try the new pills for at least 3 months.

- If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 41).

Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)

- Reassure her that some women using POPs experience heavy or prolonged bleeding. It is generally not harmful and usually becomes less or stops after a few months.
- For modest short-term relief she can try NSAIDs, beginning when heavy bleeding starts. Try the same treatments as for irregular bleeding (see previous page).
- To help prevent anemia, suggest she take iron tablets and tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).
- If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 41).

Missed pills

- See Managing Missed Pills, p. 36.

Ordinary headaches (nonmigrainous)

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Any headaches that get worse or occur more often during POP use should be evaluated.

Mood changes or changes in sex drive

- Ask about changes in her life that could affect her mood or sex drive, including changes in her relationship with her partner. Give her support as appropriate.
- Some women experience depression in the year after giving birth. This is not related to POPs. Clients who have serious mood changes such as major depression should be referred for care.
- Consider locally available remedies.

Breast tenderness

- Breastfeeding women:
  - See Maternal and Newborn Health, Sore Breasts, p. 295.
- Women not breastfeeding:
  - Recommend that she wear a supportive bra (including during strenuous activity and sleep).
  - Try hot or cold compresses.
  - Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
  - Consider locally available remedies.

Severe pain in lower abdomen

- Abdominal pain may be due to various problems, such as enlarged ovarian follicles or cysts.
  - A woman can continue to use POPs during evaluation and treatment.
  - There is no need to treat enlarged ovarian follicles or cysts unless they grow abnormally large, twist, or burst. Reassure the client that they usually disappear on their own. To be sure the problem is resolving, see the client again in 6 weeks, if possible.
- With severe abdominal pain, be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare and not caused by POPs, but it can be life-threatening (see p. 44, Question 12).
- In the early stages of ectopic pregnancy, symptoms may be absent or mild, but eventually they will become severe. A combination of these signs or symptoms should increase suspicion of ectopic pregnancy:
  - Unusual abdominal pain or tenderness
  - Abnormal vaginal bleeding or no monthly bleeding—especially if this is a change from her usual bleeding pattern
  - Light-headedness or dizziness
  - Fainting
- If ectopic pregnancy or other serious health condition is suspected, refer at once for immediate diagnosis and care. (See Female Sterilization, Managing Ectopic Pregnancy, p. 179, for more on ectopic pregnancies.)

Nausea or dizziness

- For nausea, suggest taking POPs at bedtime or with food.
- If symptoms continue, consider locally available remedies.

New Problems That May Require Switching Methods

May or may not be due to the method.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method)

- Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate.
- She can continue using POPs while her condition is being evaluated.
- If bleeding is caused by a sexually transmitted infection or pelvic inflammatory disease, she can continue using POPs during treatment.

Starting treatment with anticonvulsants, rifampicin, rifabutin, or ritonavir

- Barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate, rifampicin, rifabutin, and ritonavir may make POPs less effective. If using these medications long-term, she may want a different method, such as progestin-only injectables or a copper-bearing IUD or LNG-IUD.
- If using these medications short-term, she can use a backup method along with POPs.

Migraine headaches (see Identifying Migraine Headaches and Auras, p. 368)

- If she has migraine headaches without aura, she can continue to use POPs if she wishes.
- If she has migraine aura, stop POPs. Help her choose a method without hormones.

Certain serious health conditions (suspected blood clots in deep veins of legs or lungs, liver disease, or breast cancer). See Signs and Symptoms of Serious Health Conditions, p. 320.

- Tell her to stop taking POPs.
- Give her a backup method to use until the condition is evaluated.
- Refer for diagnosis and care if not already under care.

Heart disease due to blocked or narrowed arteries (ischemic heart disease) **or stroke**

- A woman who has one of these conditions can safely start POPs. If, however, the condition develops after she starts using POPs, she should stop. Help her choose a method without hormones.
- Refer for diagnosis and care if not already under care.

Suspected pregnancy

- Assess for pregnancy, including ectopic pregnancy.
- Tell her to stop taking POPs if pregnancy is confirmed.
- There are no known risks to a fetus conceived while a woman is taking POPs (see Question 3, p. 42).

Questions and Answers About Progestin-Only Pills

1. Can a woman who is breastfeeding safely use POPs?

Yes. This is a good choice for a breastfeeding mother who wants to use pills. POPs are safe for both the mother and the baby, starting as early as 6 weeks after giving birth. They do not affect milk production.

2. What should a woman do when she stops breastfeeding her baby? Can she continue taking POPs?

A woman who is satisfied with using POPs can continue using them when she has stopped breastfeeding. She is less protected from pregnancy than when breastfeeding, however. She can switch to another method if she wishes.

3. Do POPs cause birth defects? Will the fetus be harmed if a woman accidentally takes POPs while she is pregnant?

No. Good evidence shows that POPs will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while taking POPs or accidentally takes POPs when she is already pregnant.

4. How long does it take to become pregnant after stopping POPs?

Women who stop using POPs can become pregnant as quickly as women who stop nonhormonal methods. POPs do not delay the return of a woman's fertility after she stops taking them. The bleeding pattern a woman had before she used POPs generally returns after she stops taking them. Some women may have to wait a few months before their usual bleeding pattern returns.

5. If a woman does not have monthly bleeding while taking POPs, does this mean that she is pregnant?

Probably not, especially if she is breastfeeding. If she has been taking her pills every day, she is probably not pregnant and can keep taking her pills. If she is still worried after being reassured, she can be offered a pregnancy test, if available, or referred for one. If not having monthly bleeding bothers her, switching to another method may help—but not to a progestin-only injectable.

6. Must the POP be taken every day?

Yes. All of the pills in the POP package contain the hormone that prevents pregnancy. If a woman does not take a pill every day—especially a woman who is not breastfeeding—she could become pregnant. (In contrast, the last 7 pills in a 28-pill pack of combined oral contraceptives are not active. They contain no hormones.)

7. Is it important for a woman to take her POPs at the same time each day?

Yes, for 2 reasons. POPs contain very little hormone, and taking a pill more than 3 hours late (more than 12 hours late with POPs containing desogestrel 75 mg) could reduce their effectiveness for women who are not breastfeeding. (Breastfeeding women have the additional protection from pregnancy that breastfeeding provides, so taking pills late is not as risky.) Also, taking a pill at the same time each day can help women remember to take their pills more consistently. Linking pill taking with a daily activity also helps women remember to take their pills.

8. Do POPs cause cancer?

No. Few large studies exist on POPs and cancer, but smaller studies of POPs are reassuring. Larger studies of implants have not shown any increased risk of cancer. Implants contain hormones similar to those used in POPs, and, during the first few years of implant use, at about twice the dosage.

9. Can POPs be used as emergency contraceptive pills (ECPs) after unprotected sex?

Yes. As soon as possible, but no more than 5 days after unprotected sex, a woman can take POPs as ECPs (see Emergency Contraceptive Pills, Pill Formulations and Dosing, p. 56). Depending on the type of POP, she will have to take 40 to 50 pills. This is many pills, but it is safe because there is very little hormone in each pill.

10. Do POPs change women's mood or sex drive?

Generally, no. Some women using POPs report these complaints. The great majority of POP users do not report any such changes, however, and some report that both mood and sex drive improve. It is difficult to tell whether such changes are due to the POPs or to other reasons. Providers can help a client with these problems (see Mood changes or changes in sex drive, p. 39). There is no evidence that POPs affect women's sexual behavior.

11. What should be done if a POP user has an ovarian cyst?

The great majority of cysts are not true cysts but actually fluid-filled structures in the ovary (follicles) that continue to grow beyond the usual size in a normal menstrual cycle. They may cause some mild abdominal pain, but they only require treatment if they grow abnormally large, twist, or burst. These follicles usually go away without treatment (see Severe pain in lower abdomen, p. 40).

12. Do POPs increase the risk of ectopic pregnancy?

No. On the contrary, POPs reduce the risk of ectopic pregnancy. Ectopic pregnancies are rare among POP users. The rate of ectopic pregnancy among women using POPs is 48 per 10,000 women per year. The rate of ectopic pregnancy among women in the United States using no contraceptive method is 65 per 10,000 women per year.

On the uncommon occasions that POPs fail and pregnancy occurs, 5 to 10 of every 100 of these pregnancies are ectopic. Thus, the great majority of pregnancies after POPs fail are not ectopic. Still, ectopic pregnancy can be life-threatening, so a provider should be aware that ectopic pregnancy is possible if POPs fail.

Emergency Contraceptive Pills

Key Points for Providers and Clients

- **Emergency contraceptive pills help to prevent pregnancy when taken up to 5 days after unprotected sex.** The sooner they are taken, the better.
- **Do not disrupt an existing pregnancy.**
- **Safe for all women**—even women who cannot use ongoing hormonal contraceptive methods.
- **Provide an opportunity for women to start using an ongoing family planning method.**
- **Many options can be used as emergency contraceptive pills.** Dedicated products, progestin-only pills, and combined oral contraceptives all can act as emergency contraceptives.

What Are Emergency Contraceptive Pills?

- Pills that contain a progestin alone, or a progestin and an estrogen together—hormones like the natural hormones progesterone and estrogen in a woman's body.
- Emergency contraceptive pills (ECPs) are sometimes called "morning after" pills or postcoital contraceptives.
- Work primarily by preventing or delaying the release of eggs from the ovaries (ovulation). They do not work if a woman is already pregnant (see Question 1, p. 54).

What Pills Can Be Used as Emergency Contraceptive Pills?

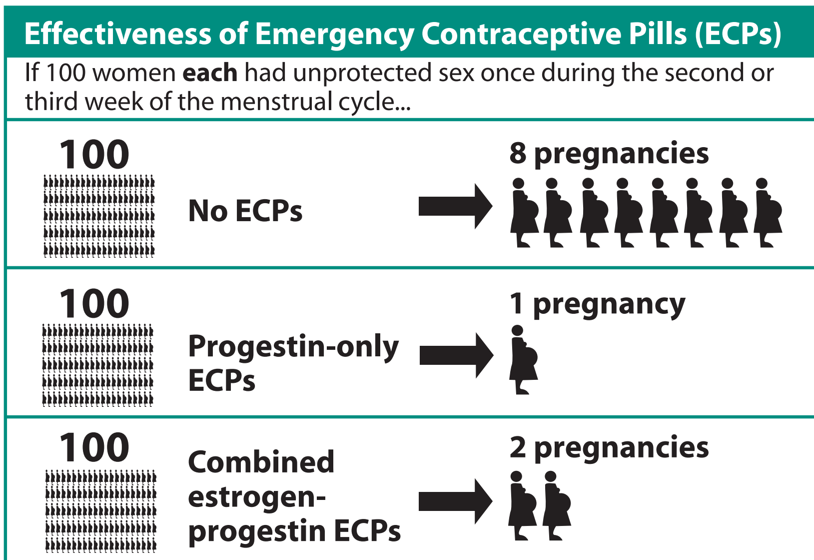
- A special ECP product with levonorgestrel only, or estrogen and levonorgestrel combined, or ulipristal acetate
- Progestin-only pills with levonorgestrel or norgestrel
- Combined oral contraceptives with estrogen and a progestin—levonorgestrel, norgestrel, or norethindrone (also called norethisterone)

When to Take Them?

- *As soon as possible* after unprotected sex. The sooner ECPs are taken after unprotected sex, the better they prevent pregnancy.
- Can prevent pregnancy when taken any time up to 5 days after unprotected sex.

How Effective?

- If 100 women each had sex once during the second or third week of the menstrual cycle without using contraception, 8 would likely become pregnant.
- If all 100 women used progestin-only ECPs, one would likely become pregnant.
- If all 100 women used estrogen and progestin ECPs, 2 would likely become pregnant.



Return of fertility after taking ECPs: No delay. A woman can become pregnant immediately after taking ECPs. Taking ECPs prevents pregnancy only from acts of sex that took place in the 5 days before. They will not protect a woman from pregnancy from acts of sex *after* she takes ECPs—not even on the next day. To stay protected from pregnancy, women must begin to use another contraceptive method at once (see Planning Ongoing Contraception, p. 51).

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, and Health Risks

Side Effects (see Managing Any Problems, p. 53)

Some users report the following:

- Changes in bleeding patterns including:
  – Slight irregular bleeding for 1–2 days after taking ECPs
  – Monthly bleeding that starts earlier or later than expected

In the week after taking ECPs:

- Nausea‡
- Abdominal pain
- Fatigue
- Headaches
- Breast tenderness
- Dizziness
- Vomiting‡

Known Health Benefits

Help protect against:

- Risks of pregnancy

Known Health Risks

None

‡ *Women using progestin-only ECP formulations are much less likely to experience nausea and vomiting than women using estrogen and progestin ECP formulations.*

Correcting Misunderstandings (see also Questions and Answers, p. 54)

Emergency contraceptive pills:

- Do not cause abortion.
- Do not cause birth defects if pregnancy occurs.
- Are not dangerous to a woman's health.
- Do not promote sexual risk-taking.
- Do not make women infertile.

Why Some Women Say They Like Emergency Contraceptive Pills

- Offer a second chance at preventing pregnancy
- Are controlled by the woman
- Reduce seeking out abortion in the case of contraceptive errors or if contraception is not used
- Can have on hand in case an emergency arises

Who Can Use Emergency Contraceptive Pills

Safe and Suitable for All Women

Tests and examinations are not necessary for using ECPs. They may be appropriate for other reasons—especially if sex was forced (see Violence Against Women, Provide Appropriate Care, p. 302).

Medical Eligibility Criteria for

Emergency Contraceptive Pills

All women can use ECPs safely and effectively, including women who cannot use ongoing hormonal contraceptive methods. Because of the short-term nature of their use, there are no medical conditions that make ECPs unsafe for any woman.

Providing Emergency Contraceptive Pills

ECPs may be needed in many different situations. Therefore, if possible, give all women who want ECPs a supply in advance. A woman can keep them in case she needs them. Women are more likely to use ECPs if they already have them when needed. Also, having them on hand enables women to take them as soon as possible after unprotected sex.

When to Use

- Any time within 5 days after unprotected sex. The sooner after unprotected sex that ECPs are taken, the more effective they are.

ECPs Appropriate in Many Situations

ECPs can be used any time a woman is worried that she might become pregnant. For example, after:

- Sex was forced (rape) or coerced
- Any unprotected sex
- Contraceptive mistakes, such as:
  - Condom was used incorrectly, slipped, or broke
  - Couple incorrectly used a fertility awareness method (for example, failed to abstain or to use another method during the fertile days)
  - Man failed to withdraw, as intended, before he ejaculated
  - Woman has missed 3 or more combined oral contraceptive pills or has started a new pack 3 or more days late
  - IUD has come out of place
  - Woman is more than 4 weeks late for her repeat injection of DMPA, more than 2 weeks late for her repeat injection of NET-EN, or more than 7 days late for her repeat monthly injection

Dosing Information

For specific products and number of pills to provide, see Pill Formulations and Dosing, p. 56.

Pill type	Total dosage to provide
Levonorgestrel-only dedicated product	• 1.5 mg of levonorgestrel in a single dose.[§]
Estrogen-progestin dedicated product	• 0.1 mg ethinyl estradiol + 0.5 mg levonorgestrel. Follow with same dose 12 hours later.
Progestin-only pills with levonorgestrel or norgestrel	• Levonorgestrel pills: 1.5 mg levonorgestrel in a single dose. • Norgestrel pills: 3 mg norgestrel in a single dose.
Combined (estrogen-progestin) oral contraceptives containing levonorgestrel, norgestrel, or norethindrone	• Estrogen and levonorgestrel pills: 0.1 mg ethinyl estradiol + 0.5 mg levonorgestrel. Follow with same dose 12 hours later. • Estrogen and norgestrel pills: 0.1 mg ethinyl estradiol + 1 mg norgestrel. Follow with same dose 12 hours later. • Estrogen and norethindrone pills: 0.1 mg ethinyl estradiol + 2 mg norethindrone. Follow with same dose 12 hours later.
Ulipristal acetate dedicated product	• 30 mg of ulipristal acetate in a single dose.

Giving Emergency Contraceptive Pills

1. Give pills	• She can take them at once. • If she is using a 2-dose regimen, tell her to take the next dose in 12 hours.
2. Describe the most common side effects	• Nausea, abdominal pain, possibly others. • Slight bleeding or change in timing of monthly bleeding. • Side effects are not signs of illness.

[§] *Alternatively, clients can be given 0.75 mg levonorgestrel at once, followed by the same dose 12 hours later. One dose is easier for the client to take and works just as well as 2 doses.*

3. Explain what to do about side effects	• Nausea: – Routine use of anti-nausea medications is not recommended. – Women who have had nausea with previous ECP use or with the first dose of a 2-dose regimen can take anti-nausea medication such as 50 mg meclizine (Agyrax, Antivert, Bonine, Postafene) one-half to one hour before taking ECPs. • Vomiting: – If the woman vomits within 2 hours after taking ECPs, she should take another dose. (She can use anti-nausea medication with this repeat dose, as above.) If vomiting continues, she can take the repeat dose by placing the pills high in her vagina. If vomiting occurs more than 2 hours after taking ECPs, she does not need to take any extra pills.
4. Give more ECPs and help her start an ongoing method	• If possible, give her more ECPs to take home in case she needs them in the future. • See Planning Ongoing Contraception, below.

"Come Back Any Time": Reasons to Return

No routine return visit is required. Assure every client that she is welcome to come back any time, however, and also if:

- She thinks she might be pregnant, especially if she has no monthly bleeding or her next monthly bleeding is delayed by more than one week.

Planning Ongoing Contraception

1. Explain that ECPs will not protect her from pregnancy for any future sex—even the next day. Discuss the need for and choice of ongoing pregnancy prevention and, if at risk, protection from STIs including HIV (see Sexually Transmitted Infections, Including HIV, p. 275).
2. If she does not want to start a contraceptive method now, give her condoms or oral contraceptives and ask her to use them if she changes her mind. Give instructions on use. Invite her to come back any time if she wants another method or has any questions or problems.
3. If possible, give her more ECPs to use in the future in case of unprotected sex.

When to Start Contraception After ECP Use

Method	When to start
Combined oral contraceptives, progestin-only pills, combined patch, combined vaginal ring	Can begin the day after she takes the ECPs. *No need to wait for her next monthly bleeding.* • Oral contraceptives and vaginal ring: – New users should begin a new pill pack or ring. – A continuing user who needed ECPs due to error can resume use as before. • Patch: – All users should begin a new patch. • All women need to use a backup method* for the first 7 days of using their method.
Progestin-only injectables	• She can start progestin-only injectables on the same day as the ECPs, or if preferred, within 7 days after the start of her monthly bleeding. She will need a backup method for the first 7 days after the injection. She should return if she has signs or symptoms of pregnancy other than not having monthly bleeding (see p. 371 for common signs and symptoms of pregnancy).
Monthly injectables	• She can start monthly injectables on the same day as the ECPs. There is no need to wait for her next monthly bleeding to have the injection. She will need a backup method for the first 7 days after the injection.
Implants	• After her monthly bleeding has returned. Give her a backup method or oral contraceptives to use until then, starting the day after she finishes taking the ECPs.
Intrauterine device (copper-bearing or hormonal IUDs)	• A copper-bearing IUD can be used for emergency contraception. This is a good option for a woman who wants an IUD as her long-term method (see Copper-Bearing IUD, p. 131). • If she decides to use an IUD after taking ECPs, the IUD can be inserted on the same day she takes the ECPs. No need for a backup method.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Method	When to start
Male and female condoms, spermicides, diaphragms, cervical caps, withdrawal	• Immediately.
Fertility awareness methods	• Standard Days Method: With the start of her next monthly bleeding. • Symptoms-based methods: Once normal secretions have returned. • Give her a backup method or oral contraceptives to use until she can begin the method of her choice.

Helping Users

Managing Any Problems

Problems Reported as Side Effects or Method Failure

May or may not be due to the method.

Slight irregular bleeding

- Irregular bleeding due to ECPs will stop without treatment.
- Assure the woman that this is not a sign of illness or pregnancy.

Change in timing of next monthly bleeding or suspected pregnancy

- Monthly bleeding may start earlier or later than expected. This is not a sign of illness or pregnancy.
- If her next monthly bleeding is more than one week later than expected after taking ECPs, assess for pregnancy. There are no known risks to a fetus conceived if ECPs fail to prevent pregnancy (see Question 2, p. 54).

Questions and Answers About Emergency Contraceptive Pills

1. Do ECPs disrupt an existing pregnancy?

No. ECPs do not work if a woman is already pregnant. When taken before a woman has ovulated, ECPs prevent the release of an egg from the ovary or delay its release by 5 to 7 days. By then, any sperm in the woman's reproductive tract will have died, since sperm can survive there for only about 5 days.

2. Do ECPs cause birth defects? Will the fetus be harmed if a woman accidentally takes ECPs while she is pregnant?

No. Good evidence shows that ECPs will not cause birth defects and will not otherwise harm the fetus if a woman is already pregnant when she takes ECPs or if ECPs fail to prevent pregnancy.

3. How long do ECPs protect a woman from pregnancy?

Women who take ECPs should understand that they could become pregnant the next time they have sex unless they begin to use another method of contraception at once. Because ECPs delay ovulation in some women, *she may be most fertile soon after taking ECPs*. If she wants ongoing protection from pregnancy, she must start using another contraceptive method at once.

4. What oral contraceptive pills can be used as ECPs?

Many combined (estrogen-progestin) oral contraceptives and progestin-only pills can be used as ECPs. Any pills containing the hormones used for emergency contraception—levonorgestrel, norgestrel, norethindrone, and these progestins together with estrogen (ethinyl estradiol)—can be used. (See Pill Formulations and Dosing, p. 56, for examples of what pills can be used.)

5. Is it safe to take 40 or 50 progestin-only pills as ECPs?

Yes. Progestin-only pills contain very small amounts of hormone. Thus, it is necessary to take many pills in order to receive the total ECP dose needed. In contrast, the ECP dosage with combined (estrogen-progestin) oral contraceptives is generally only 2 to 5 pills in each of 2 doses 12 hours apart. Women should not take 40 or 50 combined (estrogen-progestin) oral contraceptive pills as ECPs.

6. Are ECPs safe for women with HIV or AIDS? Can women on antiretroviral therapy safely use ECPs?

Yes. Women with HIV, AIDS, and those on antiretroviral therapy can safely use ECPs.

7. Are ECPs safe for adolescents?

Yes. A study of ECP use among girls 13 to 16 years old found it safe. Furthermore, all of the study participants were able to use ECPs correctly.

8. Can a woman who cannot use combined (estrogen-progestin) oral contraceptives or progestin-only pills as an ongoing method still safely use ECPs?

Yes. This is because ECP treatment is very brief.

9. If ECPs failed to prevent pregnancy, does a woman have a greater chance of that pregnancy being an ectopic pregnancy?

No. To date, no evidence suggests that ECPs increase the risk of ectopic pregnancy. Worldwide studies of progestin-only ECPs, including a United States Food and Drug Administration review, have not found higher rates of ectopic pregnancy after ECPs failed than are found among pregnancies generally.

10. Why give women ECPs before they need them? Won't that discourage or otherwise affect contraceptive use?

No. Studies of women given ECPs in advance report these findings:

- Women who have ECPs on hand took them sooner after having unprotected sex than women who had to seek out ECPs. Taken sooner, the ECPs are more likely to be effective.
- Women given ECPs ahead of time were more likely to use ECPs than women who had to go to a provider to get ECPs.
- Women continued to use other contraceptive methods as they did before obtaining ECPs in advance.

11. Should women use ECPs as a regular method of contraception?

No. Nearly all other contraceptive methods are more effective in preventing pregnancy. A woman who uses ECPs regularly for contraception is more likely to have an unintended pregnancy than a woman who uses another contraceptive regularly. Still, women using other methods of contraception should know about ECPs and how to obtain them if needed—for example, if a condom breaks or a woman misses 3 or more combined oral contraceptive pills.

12. If a woman buys ECPs over the counter, can she use them correctly?

Yes. Taking ECPs is simple, and medical supervision is not needed. Studies show that young and adult women find the label and instructions easy to understand. ECPs are approved for over-the-counter sales or nonprescription use in many countries.

Pill Formulations and Dosing
for Emergency Contraception

Hormonal and Pill Type	Formulation	Common Brand Names	Pills to Take: At First	Pills to Take: 12 Hours Later
Progestin-only				
Progestin-only dedicated ECPs	1.5 mg LNG	An Ting 1.5, Anlitin 1.5, Bao Shi Ting, D-Sigyent 1, Dan Mei, Emkit DS, Emkit Plus, Escapel, Escapel-1, Escapelle, Escapelle 1.5, Escinor 1.5, Glanique 1, Hui Ting 1.5, i-pill, Impreviat 1500, Jin Yu Ting, Jin Xiao, Ka Rui Ding, Ladiades 1.5, Levonelle 1500, Levonelle-1, Levonelle One Step, Levonorgestrel Biogaran 1500, Mergynex Plus, Nogestrol 1, Norgestrel Max Unidosis, NorLevo 1.5, Ovulol UD, Plan B One Step, PostDay 1, Postinor-1, Postinor 1.5, Postinor 1500, Postinor 2 SD, Postinor-2 Unidosis, Postinor New, Postinor Uno, Pozato Uni, Pregnon 1.5, Prikul 1, Secufem Plus, Segurite UD, Silogen 1.5, Tace 1.5, Tibex 1.5, Unlevo 1500, Unofem, Velor 1.5, Vikela, Xian Ju	1	0
	0.75 mg LNG	Ai Wu You, Alterna, An Ting 0.75, Anthia, Auxxil, Bao Shi Ting (Postinor-2), Ceciora T, Contraplan II, D-Sigyent, Dan Mei, Dia-Post, Dia-Post Gold, Diad, Duet, E Pills, EC, ECee2, ECP, Escinor 0.75, Emergyn, Emkit, Escapel-2, Estinor, Evital, Evitarem, Glanique, Glanix, Gynotrel 2, Hui Ting, Imediat, Imediat-N, Impreviat 750, Jin Xiao, L Novafem, Ladiades 0.75, Le Ting, Lenor 72, Levogynon, Levonelle, Levonelle-2, LNG-Method 5, Longil, Madonna, Me Tablet, Minipil 2, Next Choice, Nogestrol, Nogravide, Norgestrel-Max, NorLevo 0.75, Nortrel 2, Novanor 2, Nuo Shuang, Optinor, Ovocease, Ovulol, P2, Pilem, Pill 72, Pillex, Plan B, Poslov, PostDay, Postinor, Postinor-2, Postinor Duo, Postpill, Pozato, PPMS, Pregnon, Prevemb, Preventol, Prevyol, Prikul, Pronta, Rigesoft, Safex, Secufem, Seguidet, Segurité, Silogin 0.75, Smart Lady (Pregnon), Tace, Tibex, Velor 72, Vermagest, Vika, Yi Ting, Yu Ping, Yu Ting, Zintemore	2	0

LNG = levonorgestrel EE = ethinyl estradiol

Hormonal and Pill Type	Formu-lation	Common Brand Names	Pills to Take	
			At First	12 Hours Later
Progestin-only pills	0.03 mg LNG	28 Mini, Follistrel, Microlut, Microlut 35, Microluton, Microval, Mikro-30, Norgeston, Nortrel	50*	0
	0.0375 mg LNG	Neogest, Norgeal	40*	0
	0.075 mg norgestrel	Minicon, Ovrette	40*	0
Estrogen and Progestin				
Estrogen-progestin dedicated ECPs	0.05 mg EE + 0.25 mg LNG	Control NF, Fertilan, Tetragynon	2	2
Combined (estrogen-progestin) oral contra-ceptives	0.02 mg EE + 0.1 mg LNG	Alesse, Anulette 20, April, Aviane, Femexin, Leios, Lessina, Levlite, Loette, Loette-21, Loette-28, Loette Suave, LoSeasonique, Lovette, Lowette, Lutera, Microgynon 20, Microgynon Suave, Microlevlen, Microlite, Miranova, Norvetal 20, Sronyx	5	5
	0.03 mg EE + 0.15 mg LNG	Anna, Anovulatorios Microdosis, Anulette CD, Anulit, Charlize, Ciclo 21, Ciclon, Combination 3, Confiance, Contraceptive L.D., Eugynon 30ED, Famila-28, Femigoa, Femranette mikro, Follimin, Gestrelan, Gynatrol, Innova CD, Jolessa, Lady, Levlen, Levlen 21, Levlen 28, Levonorgestrel Pill, Levora, Logynon (take ochre pills only), Lorsax, Ludéal Gé, Mala-D, Microfemin, Microfemin CD, Microgest, Microgest ED, Microgyn, Microgynon, Microgynon-21, Microgynon-28, Microgynon-30, Microgynon 30ED, Microgynon CD, Microgynon ED, Microgynon ED 28, Microsoft CD, Microvlar, Minidril, Minigynon, Minigynon 30, Minivlar, Mithuri, Monofeme, Neomonovar, Neovletta, Nociclin, Nordet, Nordette, Nordette 150/30, Nordette-21, Nordette-28, Norgylene, Norvetal, Nouvelle Duo,	4	4

* Many pills, but safe. See p. 54, Q&A 5.

LNG = levonorgestrel EE = ethinyl estradiol

(continued)

Hormonal and Pill Type	Formulation	Common Brand Names	Pills to Take	
			At First	12 Hours Later
Combined (estrogen-progestin) oral contraceptives *(continued)*	0.03 mg EE + 0.15 mg LNG	Ologyn-micro, Ovoplex 3, Ovoplex 30/50, Ovranet, Ovranette, Ovranette 30, Perle Ld, Portia, Primafem, Quasense, R-den, Reget 21+7, Riget, Rigevidon, Rigevidon 21, Rigevidon 21+7, Roselle, Seasonale, Seasonique, Seif, Sexcon, Stediril 30, Suginor	4	4
	0.03 mg EE + 0.125 mg LNG	Enpresse, Minisiston, Mono Step, Trivora, Trust Pills	4	4
	0.05 mg EE + 0.25 mg LNG	Contraceptive H.D., Control, D-Norginor, Denoval, Denoval-Wyeth, Duoluton, Duoluton L, Dystrol, Evanor, Evanor-d, FMP, Follinette, Neogentrol, Neogynon, Neogynon 21, Neogynon 50, Neogynon CD, Neogynona, Neovlar, Noral, Nordiol, Nordiol 21, Normamor, Novogyn 21, Ogestrel, Ologyn, Ovidon, Ovoplex, Ovran, Stediril-D	2	2
	0.03 mg EE + 0.3 mg norgestrel	Anulette, Cryselle, Lo-Femenal, Lo-Gentrol, Low-Ogestrel, Lo/Ovral, Lo-Rondal, Minovral, Min-Ovral, Segura	4	4
	0.05 mg EE + 0.5 mg norgestrel	Anfertil, Eugynon, Eugynon CD, Femenal, Jeny FMP, Ovral, Planovar, Stediril	2	2
Ulipristal acetate				
Ulipristal acetate dedicated ECPs	30 mg ulipristal acetate	ella, ellaOne	1	0

LNG = levonorgestrel EE = ethinyl estradiol
Sources: The Emergency Contraception Web site, the International Planned Parenthood Federation Directory of Hormonal Contraceptives, and the International Consortium for Emergency Contraception

Progestin-Only Injectables

Key Points for Providers and Clients

- **Bleeding changes are common but not harmful.** Typically, irregular bleeding for the first several months and then no monthly bleeding.
- **Return for injections regularly.** Coming back every 3 months (13 weeks) for DMPA or every 2 months for NET-EN is important for greatest effectiveness.
- **Injection can be as much as 4 weeks late for DMPA or 2 weeks late for NET-EN.** Client should come back even if later.
- **Gradual weight gain is common.**
- **Return of fertility is often delayed.** It takes several months longer on average to become pregnant after stopping progestin-only injectables than after other methods.

What Are Progestin-Only Injectables?

- The injectable contraceptives depot medroxyprogesterone acetate (DMPA) and norethisterone enanthate (NET-EN) each contain a progestin like the natural hormone progesterone in a woman's body. (In contrast, monthly injectables contain both estrogen and progestin. See Monthly Injectables, p. 81.)
- Do not contain estrogen, and so can be used throughout breastfeeding and by women who cannot use methods with estrogen.
- DMPA, the most widely used progestin-only injectable, is also known as "the shot," "the jab," the injection, Depo, Depo-Provera, Megestron, and Petogen.
- NET-EN is also known as norethindrone enanthate, Noristerat, and Syngestal. (See Comparing Injectables, p. 359, for differences between DMPA and NET-EN.)

- Given by injection into the muscle (intramuscular injection). The hormone is then released slowly into the bloodstream. A different formulation of DMPA can be injected just under the skin (subcutaneous injection). See New Formulation of DMPA, p. 63.
- Work primarily by preventing the release of eggs from the ovaries (ovulation).

How Effective?

Effectiveness depends on getting injections regularly: Risk of pregnancy is greatest when a woman misses an injection.

- As commonly used, about 3 pregnancies per 100 women using progestin-only injectables over the first year. This means that 97 of every 100 women using injectables will not become pregnant.
- When women have injections on time, less than 1 pregnancy per 100 women using progestin-only injectables over the first year (3 per 1,000 women).

Return of fertility after injections are stopped: An average of about 4 months longer for DMPA and 1 month longer for NET-EN than with most other methods (see Question 7, p. 79).

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, and Health Risks

Side Effects (see Managing Any Problems, p. 75)

Some users report the following:

- Changes in bleeding patterns including, with DMPA:

  First 3 months:

  – Irregular bleeding

  – Prolonged bleeding

  At one year:

  – No monthly bleeding

  – Infrequent bleeding

  – Irregular bleeding

- NET-EN affects bleeding patterns less than DMPA. NET-EN users have fewer days of bleeding in the first 6 months and are less likely to have no monthly bleeding after one year than DMPA users.
- Weight gain (see Question 4, p. 78)
- Headaches
- Dizziness
- Abdominal bloating and discomfort
- Mood changes
- Less sex drive

Other possible physical changes:

- Loss of bone density (see Question 10, p. 80)

Why Some Women Say They Like Progestin-Only Injectables

- Do not require daily action
- Do not interfere with sex
- Are private: No one else can tell that a woman is using contraception
- Cause no monthly bleeding (for many women)
- May help women to gain weight

Known Health Benefits

DMPA

Helps protect against:

- Risks of pregnancy
- Cancer of the lining of the uterus (endometrial cancer)
- Uterine fibroids

May help protect against:

- Symptomatic pelvic inflammatory disease
- Iron-deficiency anemia

Reduces:

- Sickle cell crises among women with sickle cell anemia
- Symptoms of endometriosis (pelvic pain, irregular bleeding)

NET-EN

Helps protect against:

- Risks of pregnancy
- Iron-deficiency anemia

Known Health Risks

DMPA

None

NET-EN

None

NET-EN may offer many of the same health benefits as DMPA, but this list of benefits includes only those for which there is available research evidence.

Correcting Misunderstandings (see also Questions and Answers, p. 78)

Progestin-only injectables:

- Can stop monthly bleeding, but this is not harmful. It is similar to not having monthly bleeding during pregnancy. Blood is not building up inside the woman.
- Do not disrupt an existing pregnancy.
- Do not make women infertile.

Delivering injectable contraception in the community

More and more women are asking for injectable contraceptives. This method can be more widely available when it is offered in the community as well as in clinics.

A WHO technical consultation in 2009 reviewed evidence and program experience and concluded that "community-based provision of progestin-only injectable contraceptives by appropriately trained community health workers is safe, effective, and acceptable" to clients.

Community-based providers of injectables should be able to screen clients for pregnancy and for medical eligibility. Also, they should be able to give injections safely and to inform women about delayed return of fertility and common side effects, including irregular bleeding, no monthly bleeding, and weight gain. They also should be able to counsel women about their choice of methods, including methods available at the clinic. All providers of injectables need specific performance-based training and supportive supervision to carry out these tasks.

It is desirable, if possible, to check blood pressure before a woman starts an injectable (see p. 65, Question 3). However, in areas where the risks of pregnancy are high and few other methods are available, blood pressure measurement is not required.

For success, clinic-based providers and community-based providers must work closely together. Programs vary, but these are some ways that clinic-based providers can support community-based providers: treating side effects (see pp. 75–77), using clinical judgment concerning medical eligibility in special cases (see p. 67), ruling out pregnancy in women who are more than 4 weeks late for an injection of DMPA or 2 weeks late for NET-EN, and responding to any concerns of clients referred by the community-based providers.

The clinic also can serve as "home" for the community-based providers, where they go for resupply, for supervision, training, and advice, and to turn in their records.

New formulation of DMPA

A new type of prefilled, single-use syringe could be particularly useful to provide DMPA in the community. These syringes have a short needle meant for subcutaneous injection (that is, injection just below the skin). They contain a special formulation of DMPA, called DMPA-SC. It is

(Continued on next page)

Delivering injectable contraception in the community ***(continued)***

meant only for subcutaneous injection and not for injection into muscle. This formulation of DMPA is available in conventional prefilled auto-disable syringes and in the Uniject system, in which squeezing a bulb pushes the fluid through the needle (see photo on previous page). Like all single-use syringes, these syringes should be placed in a sharps box after use, and then the sharps box should be disposed of properly (see Infection Prevention in the Clinic, p. 312).

Who Can and Cannot Use Progestin-Only Injectables

Safe and Suitable for Nearly All Women

Nearly all women can use progestin-only injectables safely and effectively, including women who:

- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion or miscarriage
- Smoke cigarettes, regardless of woman's age or number of cigarettes smoked
- Are breastfeeding (starting as soon as 6 weeks after childbirth; however, see p. 129, Q&A 8)
- Are infected with HIV, whether or not on antiretroviral therapy (see Progestin-Only Injectables for Women With HIV, p. 67)

Women can begin using progestin-only injectables:

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)

Medical Eligibility Criteria for

Progestin-Only Injectables

Ask the client the questions below about known medical conditions. Examinations and tests are not necessary. If she answers "no" to all of the questions, then she can start progestin-only injectables if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start progestin-only injectables.

1. Are you breastfeeding a baby less than 6 weeks old?

❏ NO ❏ **YES** She can start using progestin-only injectables as soon as 6 weeks after childbirth (see Fully or nearly fully breastfeeding or Partially breastfeeding, p. 69).

2. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])

❏ NO ❏ **YES** If she reports serious active liver disease (jaundice, severe cirrhosis, liver tumor), do not provide progestin-only injectables. Help her choose a method without hormones.

3. Do you have high blood pressure?

❏ NO ❏ **YES** If you cannot check blood pressure and she reports having high blood pressure in the past, provide progestin-only injectables.

Check her blood pressure if possible:

- If she is currently being treated for high blood pressure and it is adequately controlled, or her blood pressure is below 160/100 mm Hg, provide progestin-only injectables.
- If systolic blood pressure is 160 mm Hg or higher or diastolic blood pressure 100 or higher, do not provide progestin-only injectables. Help her choose another method without estrogen.

4. Have you had diabetes for more than 20 years or damage to your arteries, vision, kidneys, or nervous system caused by diabetes?

❏ NO ❏ **YES** Do not provide progestin-only injectables. Help her choose another method without estrogen.

(Continued on next page)

Medical Eligibility Criteria for Progestin-Only Injectables (continued)

5. Have you ever had a stroke, blood clot in your legs or lungs, heart attack, or other serious heart problems?

❑ NO ❑ **YES** If she reports heart attack, heart disease due to blocked or narrowed arteries, or stroke, do not provide progestin-only injectables. Help her choose another method without estrogen. If she reports a current blood clot in the deep veins of the leg or in the lung (not superficial clots), and she is not on anticoagulant therapy, help her choose a method without hormones.

6. Do you have vaginal bleeding that is unusual for you?

❑ NO ❑ **YES** If she has unexplained vaginal bleeding that suggests pregnancy or an underlying medical condition, progestin-only injectables could make diagnosis and monitoring of any treatment more difficult. Help her choose a method to use while being evaluated and treated (but not implants or a copper-bearing or hormonal IUD). After treatment, re-evaluate for use of progestin-only injectables.

7. Do you have or have you ever had breast cancer?

❑ NO ❑ **YES** Do not provide progestin-only injectables. Help her choose a method without hormones.

8. Do you have several conditions that could increase your chances of heart disease (coronary artery disease) or stroke, such as high blood pressure and diabetes?

❑ NO ❑ **YES** Do not provide progestin-only injectables. Help her choose another method without estrogen.

Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use progestin-only injectables. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use progestin-only injectables. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Breastfeeding and less than 6 weeks since giving birth (considering the risks of another pregnancy and that a woman may have limited further access to injectables)
- Severe high blood pressure (systolic 160 mm Hg or higher or diastolic 100 mm Hg or higher)
- Acute blood clot in deep veins of legs or lungs
- History of heart disease or current heart disease due to blocked or narrowed arteries (ischemic heart disease)
- History of stroke
- Multiple risk factors for arterial cardiovascular disease such as diabetes and high blood pressure
- Unexplained vaginal bleeding before evaluation for possible serious underlying condition
- Had breast cancer more than 5 years ago, and it has not returned
- Diabetes for more than 20 years or damage to arteries, vision, kidneys, or nervous system caused by diabetes
- Severe liver disease, infection, or tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies or, if starting a progestin-only injectable, severe thrombocytopenia

Progestin-Only Injectables for Women With HIV

- Women who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely use progestin-only injectables.
- Urge these women to use condoms along with progestin-only injectables. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.

Providing Progestin-Only Injectables

When to Start

IMPORTANT: A woman can start injectables any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 7 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 7 days after the start of her monthly bleeding, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after the injection. • If she is switching from an IUD, she can start injectables immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
Switching from a hormonal method	• Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from another injectable, she can have the new injectable when the repeat injection would have been given. No need for a backup method.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• If she gave birth less than 6 weeks ago, delay her first injection until at least 6 weeks after giving birth. (See p. 129, Q&A 8.) • If her monthly bleeding has not returned, she can start injectables any time between 6 weeks and 6 months. No need for a backup method. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).
Partially breastfeeding	
Less than 6 weeks after giving birth	• Delay her first injection until at least 6 weeks after giving birth. (See p. 129, Q&A 8.)
More than 6 weeks after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.[†] She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).

[†] *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give the first injection at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Woman's situation	When to start
Not breastfeeding	
Less than 4 weeks after giving birth	• She can start injectables at any time. No need for a backup method.
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see p. 68).
No monthly bleeding (not related to childbirth or breastfeeding)	• She can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
After miscarriage or abortion	• Immediately. If she is starting within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
After taking emergency contraceptive pills (ECPs)	• She can start injectables on the same day as the ECPs, or if preferred, within 7 days after the start of her monthly bleeding. She will need a backup method for the first 7 days after the injection. She should return if she has signs or symptoms of pregnancy other than not having monthly bleeding (see p. 371 for common signs and symptoms of pregnancy).

† *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give the first injection at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Giving Advice on Side Effects

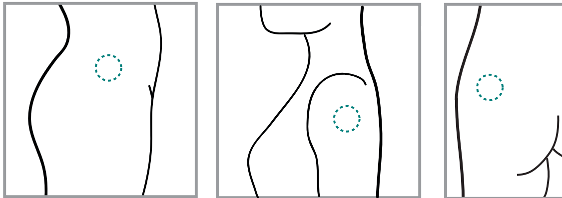
IMPORTANT: Thorough counseling about bleeding changes and other side effects must come before giving the injection. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• For the first several months, irregular bleeding, prolonged bleeding, frequent bleeding. Later, no monthly bleeding. • Weight gain (about 1–2 kg per year), headaches, dizziness, and possibly other side effects.
Explain about these side effects	• Side effects are not signs of illness. • Common, but some women do not have them. • The client can come back for help if side effects bother her.

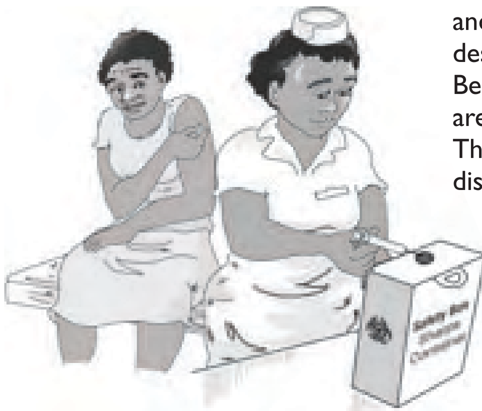
Giving the Injection

1. Obtain one dose of injectable, needle, and syringe	• DMPA: 150 mg for injections into the muscle (intramuscular injection). NET-EN: 200 mg for injections into the muscle. • If possible, use single-dose vials. Check expiration date. If using an open multidose vial, check that the vial is not leaking. • DMPA: A 2 ml syringe and a 21–23 gauge intramuscular needle. • NET-EN: A 2 or 5 ml syringe and a 19-gauge intramuscular needle. A narrower needle (21–23 gauge) also can be used. • For each injection use a disposable auto-disable syringe and needle from a new, sealed package (within expiration date and not damaged), if available.
2. Wash	• Wash hands with soap and water, if possible. • If injection site is dirty, wash it with soap and water. • No need to wipe site with antiseptic.

3. Prepare vial	• DMPA: Gently shake the vial. • NET-EN: Shaking the vial is not necessary. • No need to wipe top of vial with antiseptic. • If vial is cold, warm to skin temperature before giving the injection.
4. Fill syringe	• Pierce top of vial with sterile needle and fill syringe with proper dose.
5. Inject formula	• Insert sterile needle deep into the hip (ventrogluteal muscle), the upper arm (deltoid muscle), or the buttocks (gluteal muscle, upper outer portion), whichever the woman prefers. Inject the contents of the syringe. • Do not massage injection site.



6. Dispose of disposable syringes and needles safely	• Do not recap, bend, or break needles before disposal. • Place in a puncture-proof sharps container. • Do not reuse disposable syringes and needles. They are meant to be destroyed after a single use. Because of their shape, they are very difficult to disinfect. Therefore, reuse might transmit diseases such as HIV and hepatitis. • If reusable syringe and needle are used, they must be sterilized again after each use (see Infection Prevention in the Clinic, p. 312).



Supporting the User

Give specific instructions	• Tell her not to massage the injection site. • Tell the client the name of the injection and agree on a date for her next injection.

"Come Back Any Time": Reasons to Return Before the Next Injection

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; she has a major change in health status; or she thinks she might be pregnant.

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Planning the Next Injection

1. Agree on a date for her next injection in 3 months (13 weeks) for DMPA, or in 2 months (8 weeks) for NET-EN. Discuss how to remember the date, perhaps tying it to a holiday or other event.
2. Ask her to try to come on time. With DMPA she may come up to 4 weeks late and still get an injection. With NET-EN she may come up to 2 weeks late and still get an injection. With either DMPA or NET-EN, she can come up to 2 weeks early.
3. She should come back no matter how late she is for her next injection. If more than 4 weeks late for DMPA or 2 weeks late for NET-EN, she should abstain from sex or use condoms, spermicides, or withdrawal until she can get an injection. Also, if she has had sex in the past 5 days without using another contraceptive method, she can consider emergency contraceptive pills (see Emergency Contraceptive Pills, p. 45).

Helping Continuing Users

Repeat Injection Visits

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, next page).
3. Give her the injection. Injection of DMPA can be given up to 4 weeks late. Injection of NET-EN can be given up to 2 weeks late.
4. Plan for her next injection. Agree on a date for her next injection (in 3 months or 13 weeks for DMPA, 2 months for NET-EN). Remind her that she should try to come on time, but she should come back no matter how late she is.
5. Every year or so, check her blood pressure if possible (see Medical Eligibility Criteria, Question 3, p. 65).
6. Ask a long-term client if she has had any new health problems. Address problems as appropriate. For new health problems that may require switching methods, see p. 77.
7. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.

Managing Late Injections

- If the client is less than 4 weeks late for a repeat injection of DMPA, or less than 2 weeks late for a repeat injection of NET-EN, she can receive her next injection. No need for tests, evaluation, or a backup method.
- A client who is more than 4 weeks late for DMPA, or more than 2 weeks late for NET-EN, can receive her next injection if:
  - She has not had sex since *2 weeks after* she should have had her last injection, or
  - She has used a backup method or has taken emergency contraceptive pills (ECPs) after any unprotected sex since *2 weeks after* she should have had her last injection, or
  - She is fully or nearly fully breastfeeding and she gave birth less than 6 months ago.

  She will need a backup method for the first 7 days after the injection.
- If the client is more than 4 weeks late for DMPA, or more than 2 weeks late for NET-EN, and she does not meet these criteria, additional steps can be taken to be reasonably certain she is not pregnant (see Further Options to Assess for Pregnancy, p. 370). These steps are helpful because many women who have been using progestin-only injectables will have no monthly bleeding for at least a few months, even after discontinuation. Thus, asking her to come

back during her next monthly bleeding means her next injection could be unnecessarily delayed. She may be left without contraceptive protection.

- Discuss why the client was late and solutions. Remind her that she should keep trying to come back every 3 months for DMPA, or every 2 months for NET-EN. If coming back on time is often a problem, discuss using a backup method when she is late for her next injection, taking ECPs, or choosing another method.

Managing Any Problems

Problems Reported as Side Effects

May or may not be due to the method.

- Problems with side effects affect women's satisfaction and use of injectables. They deserve the provider's attention. If the client reports side effects, listen to her concerns, give her advice, and, if appropriate, treat.
- Offer to help the client choose another method—now, if she wishes, or if problems cannot be overcome.

No monthly bleeding

- Reassure her that most women using progestin-only injectables stop having monthly bleeding over time, and this is not harmful. There is no need to lose blood every month. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. (Some women are happy to be free from monthly bleeding.)
- If not having monthly bleeding bothers her, she may want to switch to monthly injectables, if available.

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using progestin-only injectables experience irregular bleeding. It is not harmful and usually becomes less or stops after the first few months of use.
- For modest short-term relief, take 500 mg mefenamic acid 2 times daily after meals for 5 days or 40 mg of valdecoxib daily for 5 days, beginning when irregular bleeding starts.
- If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 77).

Weight gain

- Review diet and counsel as needed.

Abdominal bloating and discomfort

- Consider locally available remedies.

Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)

- Reassure her that some women using progestin-only injectables experience heavy or prolonged bleeding. It is not harmful and usually becomes less or stops after a few months.
- For modest short-term relief she can try (one at a time), beginning when heavy bleeding starts:
  - 500 mg of mefenamic acid twice daily after meals for 5 days.
  - 40 mg of valdecoxib daily for 5 days.
  - 50 µg of ethinyl estradiol daily for 21 days, beginning when heavy bleeding starts.
- If bleeding becomes a health threat or if the woman wants, help her choose another method. In the meantime, she can use one of the treatments listed above to help reduce bleeding.
- To help prevent anemia, suggest she take iron tablets and tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).
- If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, next page).

Ordinary headaches (nonmigrainous)

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Any headaches that get worse or occur more often during use of injectables should be evaluated.

Mood changes or changes in sex drive

- Ask about changes in her life that could affect her mood or sex drive, including changes in her relationship with her partner. Give support as appropriate.
- Clients who have serious mood changes such as major depression should be referred for care.
- Consider locally available remedies.

Dizziness

- Consider locally available remedies.

New Problems That May Require Switching Methods

May or may not be due to the method.

Migraine headaches (see Identifying Migraine Headaches and Auras, p. 368)

- If she has migraine headaches without aura, she can continue to use the method if she wishes.
- If she has migraine aura, do not give the injection. Help her choose a method without hormones.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method)

- Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate.
- If no cause of bleeding can be found, consider stopping progestin-only injectables to make diagnosis easier. Provide another method of her choice to use until the condition is evaluated and treated (not implants or a copper-bearing or hormonal IUD).
- If bleeding is caused by sexually transmitted infection or pelvic inflammatory disease, she can continue using progestin-only injectables during treatment.

Certain serious health conditions (suspected blocked or narrowed arteries, serious liver disease, severe high blood pressure, blood clots in deep veins of legs or lungs, stroke, breast cancer, or damage to arteries, vision, kidneys, or nervous system caused by diabetes). See Signs and Symptoms of Serious Health Conditions, p. 320.

- Do not give next injection.
- Give her a backup method to use until the condition is evaluated.
- Refer for diagnosis and care if not already under care.

Suspected pregnancy

- Assess for pregnancy.
- Stop injections if pregnancy is confirmed.
- There are no known risks to a fetus conceived while a woman is using injectables (see Question 11, p. 80).

Questions and Answers About Progestin-Only Injectables

1. Can women who could get sexually transmitted infections (STIs) use progestin-only injectables?

Yes. Women at risk for STIs can use progestin-only injectables. The few studies available have found that women using DMPA were more likely to acquire chlamydia than women not using hormonal contraception. The reason for this difference is not known. There are few studies available on use of NET-EN and STIs. Like anyone else at risk for STIs, a user of progestin-only injectables who may be at risk for STIs should be advised to use condoms correctly every time she has sex. Consistent and correct condom use will reduce her risk of becoming infected if she is exposed to an STI.

2. If a woman does not have monthly bleeding while using progestin-only injectables, does this mean that she is pregnant?

Probably not, especially if she is breastfeeding. Eventually most women using progestin-only injectables will not have monthly bleeding. If she has been getting her injections on time, she is probably not pregnant and can keep using injectables. If she is still worried after being reassured, she can be offered a pregnancy test, if available, or referred for one. If not having monthly bleeding bothers her, switching to another method may help.

3. Can a woman who is breastfeeding safely use progestin-only injectables?

Yes. This is a good choice for a breastfeeding mother who wants a hormonal method. Progestin-only injectables are safe for both the mother and the baby starting as early as 6 weeks after childbirth. They do not affect milk production.

4. How much weight do women gain when they use progestin-only injectables?

Women gain an average of 1–2 kg per year when using DMPA. Some of the weight increase may be the usual weight gain as people age. Some women, particularly overweight adolescents, have gained much more than 1–2 kg per year. At the same time, some users of progestin-only injectables lose weight or have no significant change in weight. Asian women in particular do not tend to gain weight when using DMPA.

5. Do DMPA and NET-EN cause abortion?

No. Research on progestin-only injectables finds that they do not disrupt an existing pregnancy. They should not be used to try to cause an abortion. They will not do so.

6. Do progestin-only injectables make a woman infertile?

No. There may be a delay in regaining fertility after stopping progestin-only injectables, but in time the woman will be able to become pregnant as before, although fertility decreases as women get older. The bleeding pattern a woman had before she used progestin-only injectables generally returns several months after the last injection even if she had no monthly bleeding while using injectables. Some women may have to wait several months before their usual bleeding pattern returns.

7. How long does it take to become pregnant after stopping DMPA or NET-EN?

Women who stop using DMPA wait about 4 months longer on average to become pregnant than women who have used other methods. This means they become pregnant on average 10 months after their last injection. Women who stop using NET-EN wait about one month longer on average to become pregnant than women who have used other methods, or 6 months after their last injection. These are averages. A woman should not be worried if she has not become pregnant even as much as 12 months after stopping use. The length of time a woman has used injectables makes no difference to how quickly she becomes pregnant once she stops having injections. After stopping progestin-only injectables, a woman may ovulate before her monthly bleeding returns—and thus can become pregnant. If she wants to continue avoiding pregnancy, she should start another method before monthly bleeding returns.

8. Does DMPA cause cancer?

Many studies show that DMPA does not cause cancer. DMPA use helps protect against cancer of the lining of the uterus (endometrial cancer). Findings of the few studies on DMPA use and breast cancer are similar to findings with combined oral contraceptives: Women using DMPA were slightly more likely to be diagnosed with breast cancer while using DMPA or within 10 years after they stopped. It is unclear whether these findings are explained by earlier detection of existing breast cancers among DMPA users or by a biologic effect of DMPA on breast cancer.

A few studies on DMPA use and cervical cancer suggest that there may be a slightly increased risk of cervical cancer among women using DMPA for 5 years or more. Cervical cancer cannot develop because of DMPA alone, however. It is caused by persistent infection with human papillomavirus. Little information is available about NET-EN. It is expected to be as safe as DMPA and other contraceptive methods containing only a progestin, such as progestin-only pills and implants.

9. Can a woman switch from one progestin-only injectable to another?

Switching injectables is safe, and it does not decrease effectiveness. If switching is necessary due to shortages of supplies, the first injection of the new injectable should be given when the next injection of the old formulation would have been given. Clients need to be told that they are switching, the name of the new injectable, and its injection schedule.

10. How does DMPA affect bone density?

DMPA use decreases bone density. Research has not found that DMPA users of any age are likely to have more broken bones, however. When DMPA use stops, bone density increases again for women of reproductive age. Among adults who stop using DMPA, after 2 to 3 years their bone density appears to be similar to that of women who have not used DMPA. Among adolescents, it is not clear whether the loss in bone density prevents them from reaching their potential peak bone mass. No data are available on NET-EN and bone loss, but the effect is expected to be similar to the effect of DMPA.

11. Do progestin-only injectables cause birth defects? Will the fetus be harmed if a woman accidentally uses progestin-only injectables while she is pregnant?

No. Good evidence shows that progestin-only injectables will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while using progestin-only injectables or accidentally starts injectables when she is already pregnant.

12. Do progestin-only injectables change women's mood or sex drive?

Generally, no. Some women using injectables report these complaints. The great majority of injectables users do not report any such changes, however. It is difficult to tell whether such changes are due to progestin-only injectables or to other reasons. Providers can help a client with these problems (see Mood changes or changes in sex drive, p. 76). There is no evidence that progestin-only injectables affect women's sexual behavior.

13. What if a woman returns for her next injection late?

In 2008 WHO revised its guidance based on new research findings. The new guidance recommends giving a woman her next DMPA injection if she is up to 4 weeks late, without the need for further evidence that she is not pregnant. A woman can receive her next NET-EN injection if she is up to 2 weeks late. Some women return even later for their repeat injection, however. In such cases providers can use Further Options to Assess for Pregnancy, p. 370. Whether a woman is late for reinjection or not, her next injection of DMPA should be planned for 3 months later, or her next injection of NET-EN should be planned for 2 months later, as usual.

Monthly Injectables

Key Points for Providers and Clients

- **Bleeding changes are common but not harmful**. Typically, lighter monthly bleeding, fewer days of bleeding, or irregular or infrequent bleeding.
- **Return on time.** Coming back every 4 weeks is important for greatest effectiveness.
- **Injection can be as much as 7 days early or late.** Client should come back even if later.

What Are Monthly Injectables?

- Monthly injectables contain 2 hormones—a progestin and an estrogen—like the natural hormones progesterone and estrogen in a woman's body. (Combined oral contraceptives also contain these 2 types of hormones.)
- Also called combined injectable contraceptives, CICs, the injection.
- Information in this chapter applies to medroxyprogesterone acetate (MPA)/estradiol cypionate and to norethisterone enanthate (NET-EN)/estradiol valerate. The information may also apply to older formulations, about which less is known.
- MPA/estradiol cypionate is marketed under the trade names Ciclofem, Ciclofemina, Cyclofem, Cyclo-Provera, Feminena, Lunella, Lunelle, Novafem, and others. NET-EN/estradiol valerate is marketed under the trade names Mesigyna and Norigynon.
- Work primarily by preventing the release of eggs from the ovaries (ovulation).

How Effective?

Effectiveness depends on returning on time: Risk of pregnancy is greatest when a woman is late for an injection or misses an injection.

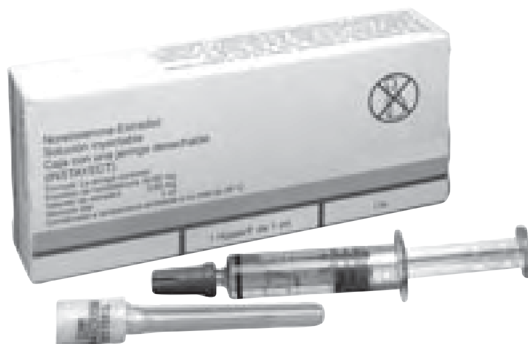
- As commonly used, about 3 pregnancies per 100 women using monthly injectables over the first year. This means that 97 of every 100 women using injectables will not become pregnant.
- When women have injections on time, less than 1 pregnancy per 100 women using monthly injectables over the first year (5 per 10,000 women).

Return of fertility after injections are stopped: An average of about one month longer than with most other methods (see Question 11, p. 100).

Protection against sexually transmitted infections (STIs): None

Why Some Women Say They Like Monthly Injectables

- Do not require daily action
- Are private: No one else can tell that a woman is using contraception
- Injections can be stopped at any time
- Are good for spacing births



Side Effects, Health Benefits, and Health Risks

Side Effects (see Managing Any Problems, p. 95)

Some users report the following:

- Changes in bleeding patterns including:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Infrequent bleeding
  - Prolonged bleeding
  - No monthly bleeding
- Weight gain
- Headaches
- Dizziness
- Breast tenderness

Known Health Benefits and Health Risks

Long-term studies of monthly injectables are limited, but researchers expect that their health benefits and health risks are similar to those of combined oral contraceptives (see Combined Oral Contraceptives, Health Benefits and Health Risks, p. 3). There may be some differences in the effects on the liver, however (see Question 2, p. 98).

Correcting Misunderstandings (see also Questions and Answers, p. 98)

Monthly injectables:

- Can stop monthly bleeding, but this is not harmful. It is similar to not having monthly bleeding during pregnancy. Blood is not building up inside the woman.
- Are not in experimental phases of study. Government agencies have approved them.
- Do not make women infertile.
- Do not cause early menopause.
- Do not cause birth defects or multiple births.
- Do not cause itching.
- Do not change women's sexual behavior.

Who Can and Cannot Use Monthly Injectables

Safe and Suitable for Nearly All Women

Nearly all women can use monthly injectables safely and effectively, including women who:

- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion or miscarriage
- Smoke any number of cigarettes daily *and* are under 35 years old
- Smoke fewer than 15 cigarettes daily *and* are over 35 years old
- Have anemia now or had anemia in the past
- Have varicose veins
- Are infected with HIV, whether or not on antiretroviral therapy, unless that therapy includes ritonavir (see Monthly Injectables for Women With HIV, below)

Women can begin using monthly injectables:

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)

Monthly Injectables for Women With HIV

- Women can safely use monthly injectables even if they are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy unless their therapy includes ritonavir. Ritonavir may reduce the effectiveness of monthly injectables. (See Medical Eligibility Criteria, p. 330.)
- Urge these women to use condoms along with monthly injectables. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs. Condoms also provide extra contraceptive protection for women on ARV therapy.

Medical Eligibility Criteria for

Monthly Injectables

Ask the client the questions below about known medical conditions. Examinations and tests are not necessary. If she answers "no" to all of the questions, then she can start monthly injectables if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start monthly injectables.

1. Are you breastfeeding a baby less than 6 months old?

❑ NO ❑ **YES**

- If fully or nearly fully breastfeeding: She can start 6 months after giving birth or when breast milk is no longer the baby's main food—whichever comes first (see Fully or nearly fully breastfeeding, p. 89).
- If partially breastfeeding: She can start monthly injectables as soon as 6 weeks after giving birth (see Partially breastfeeding, p. 90).

2. Have you had a baby in the last 3 weeks and you are not breastfeeding?

❑ NO ❑ **YES** She can start monthly injectables as soon as 3 weeks after childbirth. (If there is an additional risk that she might develop a blood clot in a deep vein (deep vein thrombosis, or VTE), then she should not start monthly injectables at 3 weeks after childbirth, but can start at 6 weeks instead. These additional risk factors include previous VTE, thrombophilia, caesarean delivery, blood transfusion at delivery, postpartum hemorrhage, pre-eclampsia, obesity ($\geq$30 kg/m^2), smoking, and being bedridden for a prolonged time.)

3. Do you smoke 15 or more cigarettes a day?

❑ NO ❑ **YES** If she is 35 years of age or older and smokes more than 15 cigarettes a day, do not provide monthly injectables. Urge her to stop smoking and help her choose another method.

4. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])

❑ NO ❑ **YES** If she reports serious active liver disease (jaundice, active hepatitis, severe cirrhosis, liver tumor), do not provide monthly injectables. Help her choose a method without hormones. (If she has mild cirrhosis or gall bladder disease, she can use monthly injectables.)

(Continued on next page)

5. Do you have high blood pressure?

❑ NO ❑ **YES** If you cannot check blood pressure and she reports a history of high blood pressure, or if she is being treated for high blood pressure, do not provide monthly injectables. Refer her for a blood pressure check if possible or help her choose another method without estrogen.

Check her blood pressure if possible:

- If blood pressure is below 140/90 mm Hg, provide monthly injectables.
- If systolic blood pressure is 140 mm Hg or higher or diastolic blood pressure is 90 or higher, do not provide monthly injectables. Help her choose a method without estrogen, but not progestin-only injectables if systolic blood pressure is 160 or higher or diastolic pressure is 100 or higher.

(One blood pressure reading in the range of 140–159/90–99 mm Hg is not enough to diagnose high blood pressure. Provide a backup method* to use until she can return for another blood pressure check, or help her choose another method now if she prefers. If blood pressure at next check is below 140/90, she can use monthly injectables.)

6. Have you had diabetes for more than 20 years *or* damage to your arteries, vision, kidneys, or nervous system caused by diabetes?

❑ NO ❑ **YES** Do not provide monthly injectables. Help her choose a method without estrogen but not progestin-only injectables.

7. Have you ever had a stroke, blood clot in your legs or lungs, heart attack, or other serious heart problems?

❑ NO ❑ **YES** If she reports heart attack, heart disease due to blocked or narrowed arteries, or stroke, do not provide monthly injectables. Help her choose a method without estrogen but not progestin-only injectables. If she reports a current blood clot in the deep veins of the leg or in the lung (not superficial clots), help her choose a method without hormones.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

8. Do you have or have you ever had breast cancer?

❑ NO ❑ **YES** Do not provide monthly injectables. Help her choose a method without hormones.

9. Do you sometimes see a bright area of lost vision in the eye before a very bad headache (migraine aura)? Do you get throbbing, severe head pain, often on one side of the head, that can last from a few hours to several days and can cause nausea or vomiting (migraine headaches)? Such headaches are often made worse by light, noise, or moving about.

❑ NO ❑ **YES** If she has migraine aura at any age, do not provide monthly injectables. If she has migraine headaches *without* aura *and* is age 35 or older, do not provide monthly injectables. Help these women choose a method without estrogen. If she is under 35 and has migraine headaches without aura, she can use monthly injectables (see Identifying Migraine Headaches and Auras, p. 368).

10. Are you planning major surgery that will keep you from walking for one week or more?

❑ NO ❑ **YES** If so, she can start monthly injectables 2 weeks after the surgery. Until she can start monthly injectables, she should use a backup method.

11. Do you have several conditions that could increase your chances of heart disease (coronary artery disease) or stroke, such as older age, smoking, high blood pressure, or diabetes?

❑ NO ❑ **YES** Do not provide monthly injectables. Help her choose a method without estrogen, but not progestin-only injectables.

12. Are you taking lamotrigine or ritonavir?

❑ NO ❑ **YES** Do not provide monthly injectables. Monthly injectables can make lamotrigine less effective. Ritonavir can make monthly injectables less effective. Help her choose a method without estrogen.

Also, women should not use monthly injectables if they report having thrombogenic mutations or lupus with positive (or unknown) antiphospholipid antibodies. For complete classifications, see Medical Eligibility Criteria for Contraceptive Use, p. 324. Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use monthly injectables. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use monthly injectables. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Not breastfeeding and less than 3 weeks since giving birth
- Not breastfeeding and between 3 and 6 weeks postpartum with additional risk that she might develop a blood clot in a deep vein (VTE)
- Primarily breastfeeding between 6 weeks and 6 months since giving birth
- Age 35 or older and smokes more than 15 cigarettes a day
- High blood pressure (systolic blood pressure between 140 and 159 mm Hg or diastolic blood pressure between 90 and 99 mm Hg)
- Controlled high blood pressure, where continuing evaluation is possible
- History of high blood pressure, where blood pressure cannot be taken (including pregnancy-related high blood pressure)
- Severe liver disease, infection, or tumor
- Age 35 or older and has migraine headaches without aura
- Younger than age 35 and has migraine headaches that have developed or have gotten worse while using monthly injectables
- Had breast cancer more than 5 years ago, and it has not returned
- Diabetes for more than 20 years or damage to arteries, vision, kidneys, or nervous system caused by diabetes
- Multiple risk factors for arterial cardiovascular disease, such as older age, smoking, diabetes, and high blood pressure
- Taking lamotrigine. Monthly injectables may reduce the effectiveness of lamotrigine.
- Taking ritonavir or ritonavir-boosted protease inhibitors. A backup contraceptive method should also be used because these medications reduce the effectiveness of monthly injectables.

Providing Monthly Injectables

When to Start

IMPORTANT: A woman can start injectables any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 7 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 7 days after the start of her monthly bleeding, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after the injection. • If she is switching from an IUD, she can start injectables immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
Switching from a hormonal method	• Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from another injectable, she can have the new injectable when the repeat injection would have been given. No need for a backup method.
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• Delay her first injection until 6 months after giving birth or when breast milk is no longer the baby's main food—whichever comes first.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Fully or nearly fully breastfeeding (continued)	
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see p. 89).
Partially breastfeeding	
Less than 6 weeks after giving birth	• Delay her first injection until at least 6 weeks after giving birth.
More than 6 weeks after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see p. 89).
Not breastfeeding	
Less than 4 weeks after giving birth	• She can start injectables at any time on days 21–28 after giving birth. No need for a backup method. (If additional risk for VTE, wait until 6 weeks. See p. 85, Question 2.)
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 7 days after the injection. • If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see p. 89).

† *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give the first injection at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Woman's situation	When to start
No monthly bleeding (not related to childbirth or breastfeeding)	• She can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
After miscarriage or abortion	• Immediately. If she is starting within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
After taking emergency contraceptive pills (ECPs)	• She can start injectables on the same day as the ECPs. There is no need to wait for her next monthly bleeding to have the injection. She will need a backup method for the first 7 days after the injection.

Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes and other side effects must come before giving the injection. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• Lighter bleeding and fewer days of bleeding, irregular bleeding, and infrequent bleeding. • Weight gain, headaches, dizziness, breast tenderness, and possibly other side effects.
Explain about these side effects	• Side effects are not signs of illness. • Usually become less or stop within the first few months after starting injections. • Common, but some women do not have them. • The client can come back for help if side effects bother her.

Giving the Injection

1. Obtain one dose of injectable, needle and syringe

- 25 mg MPA/estradiol cypionate or 50 mg NET-EN/estradiol valerate, intramuscular injection needle, and 2 ml or 5 ml syringe. (NET-EN/estradiol valerate is sometimes available in prefilled syringes.)
- For each injection use a disposable auto-disable syringe and needle from a new sealed package (within expiration date and not damaged), if available.

2. Wash

- Wash hands with soap and water, if possible.
- If injection site is dirty, wash it with soap and water.
- No need to wipe site with antiseptic.

3. Prepare vial

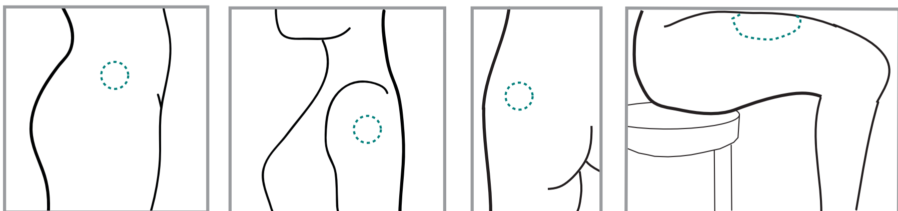
- MPA/estradiol cypionate: Gently shake the vial.
- NET-EN/estradiol valerate: Shaking the vial is not necessary.
- No need to wipe top of vial with antiseptic.
- If vial is cold, warm to skin temperature before giving the injection.

4. Fill syringe

- Pierce top of vial with sterile needle and fill syringe with proper dose. (Omit this step if syringe is preloaded with injectable formulation.)

5. Inject formula

- Insert sterile needle deep into the hip (ventrogluteal muscle), the upper arm (deltoid muscle), the buttocks (gluteal muscle, upper outer portion), or outer (anterior) thigh, whichever the woman prefers. Inject the contents of the syringe.
- Do not massage injection site.



6. Dispose of disposable syringes and needles safely

- Do not recap, bend, or break needles before disposal.
- Place in a puncture-proof sharps container.

- Do not reuse disposable syringes and needles. They are meant to be destroyed after a single use. Because of their shape, they are very difficult to disinfect. Therefore, reuse might transmit diseases such as HIV and hepatitis.
- If reusable syringe and needle are used, they must be sterilized again after each use (see Infection Prevention in the Clinic, p. 312).

Supporting the User

Give specific instructions

- Tell her not to massage the injection site.
- Tell the client the name of the injection and agree on a date for her next injection in about 4 weeks.

"Come Back Any Time": Reasons to Return Before the Next Injection

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; she has a major change in health status; or she thinks she might be pregnant.

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Planning the Next Injection

1. Agree on a date for her next injection in 4 weeks.
2. Ask her to try to come on time. She may come up to 7 days early or 7 days late and still get an injection.
3. She should come back no matter how late she is for her next injection. If more than 7 days late, she should abstain from sex or use condoms, spermicides, or withdrawal until she can get an injection. She can also consider emergency contraceptive pills if she is more than 7 days late and she has had unprotected sex in the past 5 days (see Emergency Contraceptive Pills, p. 45).

Helping Continuing Users

Repeat Injection Visits

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, next page).
3. Give her the injection. Injection can be given up to 7 days early or late.
4. Plan for her next injection. Agree on a date for her next injection (in 4 weeks). Remind her that she should try to come on time, but she should come back no matter how late she is.

5. Every year or so, check her blood pressure if possible (see Medical Eligibility Criteria, Question 5, p. 86).
6. Ask a long-term client if she has had any new health problems. Address problems as appropriate. For new health problems that may require switching methods, see p. 97.
7. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.

Managing Late Injections

- If the client is less than 7 days late for a repeat injection, she can receive her next injection. No need for tests, evaluation, or a backup method.
- A client who is more than 7 days late can receive her next injection if:
  - She has not had sex since 7 *days after* she should have had her last injection, or
  - She has used a backup method or has taken emergency contraceptive pills (ECPs) after any unprotected sex since 7 *days after* she should have had her last injection.

  She will need a backup method for the first 7 days after the injection.
- If the client is more than 7 days late and does not meet these criteria, additional steps can be taken to be reasonably certain she is not pregnant (see Further Options to Assess for Pregnancy, p. 370).
- Discuss why the client was late and solutions. If coming back on time is often a problem, discuss using a backup method when she is late for her next injection, taking ECPs, or choosing another method.

Managing Any Problems

Problems Reported as Side Effects

May or may not be due to the method.

- Problems with side effects affect women's satisfaction and use of injectables. They deserve the provider's attention. If the client reports side effects, listen to her concerns, give her advice, and, if appropriate, treat.
- Offer to help the client choose another method—now, if she wishes, or if problems cannot be overcome.

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using monthly injectables experience irregular bleeding. It is not harmful and usually becomes less or stops after the first few months of use.
- For modest short-term relief, she can try 800 mg ibuprofen 3 times daily after meals for 5 days or other nonsteroidal anti-inflammatory drug (NSAID), beginning when irregular bleeding starts. NSAIDs provide some relief of irregular bleeding for implants, progestin-only injectables, and IUDs, and they may also help for monthly injectables.
- If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 97).

Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)

- Reassure her that many women using monthly injectables experience heavy or prolonged bleeding. It is generally not harmful and usually becomes less or stops after a few months.
- For modest short-term relief, she can try 800 mg ibuprofen 3 times daily after meals for 5 days or other NSAID, beginning when heavy bleeding starts. NSAIDs provide some relief of heavy bleeding for implants, progestin-only injectables, and IUDs, and they may also help for monthly injectables.
- To help prevent anemia, suggest she take iron tablets and tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).
- If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, next page).

No monthly bleeding

- Reassure her that some women using monthly injectables stop having monthly bleeding, and this not harmful. There is no need to lose blood every month. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. (Some women are happy to be free from monthly bleeding.)

Weight gain

- Review diet and counsel as needed.

Ordinary headaches (nonmigrainous)

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Any headaches that get worse or occur more often during use of injectables should be evaluated.

Breast tenderness

- Recommend that she wear a supportive bra (including during strenuous activity and sleep).
- Try hot or cold compresses.
- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Consider locally available remedies.

Dizziness

- Consider locally available remedies.

New Problems That May Require Switching Methods

May or may not be due to the method.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method)

- Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate.
- She can continue using monthly injectables while her condition is being evaluated.
- If bleeding is caused by sexually transmitted infection or pelvic inflammatory disease, she can continue using monthly injectables during treatment.

Migraine headaches (see Identifying Migraine Headaches and Auras, p. 368)

- Regardless of her age, a woman who develops migraine headaches, with or without aura, or whose migraine headaches become worse while using monthly injectables, should stop using injectables.
- Help her choose a method without estrogen.

Circumstances that will keep her from walking for one week or more

- If she is having major surgery, or her leg is in a cast, or for other reasons she will be unable to move about for several weeks, she should:
  - Tell her doctors that she is using monthly injectables.
  - Stop injections one month before scheduled surgery, if possible, and use a backup method during this period.
  - Restart monthly injectables 2 weeks after she can move about again.

Certain serious health conditions (suspected heart or liver disease, high blood pressure, blood clots in deep veins of legs or lungs, stroke, breast cancer, or damage to arteries, vision, kidneys, or nervous system caused by diabetes). See Signs and Symptoms of Serious Health Conditions, p. 320.

- Do not give the next injection.
- Give her a backup method to use until the condition is evaluated.
- Refer for diagnosis and care if not already under care.

Suspected pregnancy

- Assess for pregnancy.
- Stop injections if pregnancy is confirmed.
- There are no known risks to a fetus conceived while a woman is using injectables (see Question 3, p. 98).

Starting treatment with lamotrigine or ritonavir

- Combined hormonal methods, including monthly injectables, can make lamotrigine less effective. Unless she can use a different medication for seizures than lamotrigine, help her choose a method without estrogen.
- Ritonavir and ritonavir-boosted protease inhibitors may make monthly injectables less effective. She can use progestin-only injectables, implants, the LNG-IUD, or any nonhormonal method.

Questions and Answers About Monthly Injectables

1. How are monthly injectables different from DMPA or NET-EN?

The major difference between monthly injectables and DMPA or NET-EN is that a monthly injectable contains an estrogen as well as a progestin, making it a combined method. In contrast, DMPA and NET-EN contain progestin only. Also, monthly injectables contain less progestin. These differences result in more regular bleeding and fewer bleeding disturbances than with DMPA or NET-EN. Monthly injectables require a monthly injection, whereas NET-EN is injected every 2 months and DMPA, every 3 months.

2. Do monthly injectables function like combined oral contraceptives?

Largely, yes. Monthly injectables (also called combined injectable contraceptives) are similar to combined oral contraceptives (COCs). There are few long-term studies done on monthly injectables, but researchers assume that most of the findings about COCs also apply to monthly injectables. Monthly injectables, however, do not pass through the liver first because they are not taken by mouth like COCs. Short-term studies have shown that monthly injectables have less effect than COCs on blood pressure, blood clotting, the breakdown of fatty substances (lipid metabolism), and liver function. Long-term studies of the health risks and benefits of monthly injectables are underway.

3. Do monthly injectables cause birth defects? Will the fetus be harmed if a woman accidentally uses monthly injectables while she is pregnant?

No. Good evidence from studies on other hormonal methods shows that hormonal contraception will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while using monthly injectables or accidentally starts injectables when she is already pregnant.

4. Do monthly injectables cause abortion?

No. Research on combined contraceptives finds that they do not disrupt an existing pregnancy. They should not be used to try to cause an abortion. They will not do so.

5. Should the dates for a woman's repeat injections be based on when monthly bleeding starts?

No. Some providers think that the next injection should only be given when the next monthly bleeding begins. Bleeding episodes should not guide the injection schedule, however. A woman should receive the injection every 4 weeks. The timing of injections should not be based on her monthly bleeding.

6. Can monthly injectables be used to bring on monthly bleeding?

No. A woman may experience some vaginal bleeding (a "withdrawal bleed") as a result of an injection, but there is no evidence that giving a woman who has irregular bleeding a single injection of a monthly injectable will cause her monthly bleeding to begin properly about one month later. Also, giving a pregnant woman an injection will not cause an abortion.

7. Can women who smoke use monthly injectables safely?

Women younger than age 35 who smoke any number of cigarettes and women 35 and older who smoke fewer than 15 cigarettes a day can safely use monthly injectables. (In contrast, women 35 and older who smoke any number of cigarettes should not use combined oral contraceptives.) Women 35 and older who smoke more than 15 cigarettes a day should choose a method without estrogen such as progestin-only injectables, if available. All women who smoke should be urged to stop smoking.

8. Do monthly injectables change women's mood or sex drive?

Generally, no. Some women using monthly injectables report these complaints. The great majority of injectables users do not report any such changes, however, and some report that both mood and sex drive improve. It is difficult to tell whether such changes are due to monthly injectables or to other reasons. There is no evidence that monthly injectables affect women's sexual behavior.

9. Can women with varicose veins use monthly injectables?

Yes. Monthly injectables are safe for women with varicose veins. Varicose veins are enlarged blood vessels close to the surface of the skin. They are not dangerous. They are not blood clots, nor are these veins the deep veins in the legs where a blood clot can be dangerous (deep vein thrombosis). A woman who has or has had deep vein thrombosis should not use monthly injectables.

10. Do monthly injectables make a woman infertile?

No. There may be a delay in regaining fertility after stopping monthly injectables, but in time the woman will be able to become pregnant as before, although fertility decreases as women get older. The bleeding pattern a woman had before she used monthly injectables generally returns a few months after the last injection. Some women may have to wait a few months before their usual bleeding pattern returns

11. How long does it take to become pregnant after stopping monthly injectables?

Women who stop using monthly injectables wait about one month longer on average to become pregnant than women who have used other methods. This means they become pregnant on average 5 months after their last injection. These are averages. A woman should not be worried if she has not become pregnant even as much as 12 months after stopping use. After stopping monthly injectables, a woman may ovulate before her monthly bleeding returns—and thus can become pregnant. If she wants to continue avoiding pregnancy, she should start another method before monthly bleeding returns.

12. What if a woman returns for her next injection late?

Current WHO guidance recommends giving a woman her next monthly injection if she is up to 7 days late, without the need for further evidence that she is not pregnant. Some women return even later for their repeat injection, however. Providers can use Further Options to Assess for Pregnancy (see p. 370) if a user of monthly injectables is more than 7 days late for her repeat injection.

Combined Patch

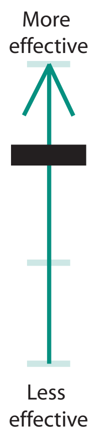
Key Points for Providers and Clients

- **Requires wearing a small adhesive patch.** Worn on the body every day and night. A new patch is put on each week, for 3 weeks, followed by a week with no patch.
- **Replace each patch on time for greatest effectiveness**.
- **Bleeding changes are common but not harmful.** Typically, irregular bleeding for the first few months and then lighter and more regular bleeding.

What Is the Combined Patch?

- A small, thin, square of flexible plastic worn on the body.
- Continuously releases 2 hormones—a progestin and an estrogen, like the natural hormones progesterone and estrogen in a woman's body—directly through the skin into the bloodstream.
- A new patch is worn every week for 3 weeks, then no patch for the fourth week. During this fourth week the woman will have monthly bleeding.
- Also called Ortho Evra and Evra.
- Works primarily by preventing the release of eggs from the ovaries (ovulation).

How Effective?



Effectiveness depends on the user: Risk of pregnancy is greatest when a woman is late to change the patch.

- The combined patch is new, and research on effectiveness is limited. Effectiveness rates in clinical trials of the patch suggest that it may be more effective than combined oral contraceptives, both as commonly used and with consistent and correct use (see Combined Oral Contraceptives, How Effective?, p. 1).

- Pregnancy rates may be slightly higher among women weighing 90 kg or more.

Return of fertility after patch use is stopped: No delay

Protection against sexually transmitted infections: None

Side Effects, Health Benefits, and Health Risks

Side Effects

Some users report the following:

- Skin irritation or rash where the patch is applied
- Changes in monthly bleeding:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Prolonged bleeding
  - No monthly bleeding
- Headaches
- Nausea
- Vomiting
- Breast tenderness and pain
- Abdominal pain
- Flu symptoms/upper respiratory infection
- Irritation, redness, or inflammation of the vagina (vaginitis)

Known Health Benefits and Health Risks

Long-term studies of the patch are limited, but researchers expect that its health benefits and risks are like those of combined oral contraceptives (see Combined Oral Contraceptives, Health Benefits and Health Risks, p. 3).

> Medical eligibility criteria (see p. 6), guidelines for when to start (see p. 10), and helping continuing users (see p. 16) are the same for the combined patch as for combined oral contraceptives.

Providing the Combined Patch

Explaining How to Use

Explain how to remove the patch from the pouch and remove backing	• Explain that she should tear the foil pouch along the edge. • She should then pull out the patch and peel away the backing without touching the sticky surface.
Show her where and how to apply the patch	• Explain that she can apply it on the upper outer arm, back, stomach, abdomen, or buttocks, wherever it is clean and dry, but not on the breasts. • She must press the sticky, medicated part against her skin for 10 seconds. She should run her finger along the edge to make sure it sticks. • The patch will stay on even during work, exercise, swimming, and bathing.
She must change the patch every week for 3 weeks in a row	• She should apply each new patch on the same day of each week—the "patch-change day." For example, if she puts on her first patch on a Sunday, all of her patches should be applied on a Sunday. • Explain that to avoid irritation, she should not apply the new patch to the same place on the skin where the previous patch was.
She should not wear a patch on the fourth week	• She will probably have monthly bleeding this week.
After the patch-free week, she should apply a new patch	• She should never go without wearing a patch for more than 7 days. Doing so risks pregnancy.

Supporting the User

Instructions for Late Removal or Replacement

Forgot to apply a new patch at the start of any patch cycle (during week one)**?**

- Apply a new patch as soon as possible.
- Record this day of the week as the new patch-change day.
- Use a backup method[*] for the first 7 days of patch use.
- Also, if the new patch was applied 3 or more days late (patch was left off for 10 days or more in a row) and she had unprotected sex in the past 5 days, consider taking emergency contraceptive pills (see Emergency Contraceptive Pills, p. 45).

Forgot to change the patch in the middle of the patch cycle (during week 2 or 3)**?**

- If late by 1 or 2 days (up to 48 hours):
  - Apply a new patch as soon as remembered
  - Keep the same patch-change day
  - No need for a backup method
- If late by more than 2 days (more than 48 hours):
  - Stop the current cycle and start a new 4-week cycle by applying a new patch immediately
  - Record this day of the week as the new patch-change day
  - Use a backup method for the first 7 days of patch use

Forgot to remove the patch at the end of the patch cycle (week 4)**?**

- Remove the patch.
- Start the next cycle on the usual patch-change day.
- No need for a backup method.

[*] *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Combined Vaginal Ring

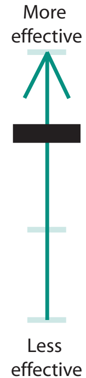
Key Points for Providers and Clients

- **Requires keeping a flexible ring in the vagina.** It is kept in place all the time, every day and night for 3 weeks, followed by a week with no ring in place.
- **Start each new ring on time for greatest effectiveness.**
- **Bleeding changes are common but not harmful.** Typically, irregular bleeding for the first few months and then lighter and more regular bleeding.

What Is the Combined Vaginal Ring?

- A flexible ring placed in the vagina.
- Continuously releases 2 hormones—a progestin and an estrogen, like the natural hormones progesterone and estrogen in a woman's body—from inside the ring. Hormones are absorbed through the wall of the vagina directly into the bloodstream.
- The ring is kept in place for 3 weeks, then removed for the fourth week. During this fourth week the woman will have monthly bleeding.
- Also called NuvaRing.
- Works primarily by preventing the release of eggs from the ovaries (ovulation).

How Effective?



Effectiveness depends on the user: Risk of pregnancy is greatest when a woman is late to start a new ring.

- The combined vaginal ring is new, and research on effectiveness is limited. Effectiveness rates in clinical trials of the vaginal ring suggest that it may be more effective than combined oral contraceptives, both as commonly used and with consistent and correct use (see Combined Oral Contraceptives, How Effective?, p. 1).

Return of fertility after ring use is stopped: No delay

Protection against sexually transmitted infections: None

Side Effects, Health Benefits, and Health Risks

Side Effects

Some users report the following:

- Changes in monthly bleeding, including:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Infrequent bleeding
  - Prolonged bleeding
  - No monthly bleeding
- Headaches
- Irritation, redness, or inflammation of the vagina (vaginitis)
- White vaginal discharge

Known Health Benefits and Health Risks

Long-term studies of the vaginal ring are limited, but researchers expect that its health benefits and risks are like those of combined oral contraceptives (see Combined Oral Contraceptives, Health Benefits and Health Risks, p. 3).

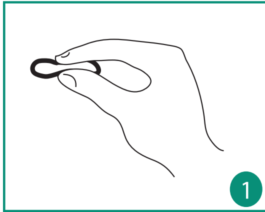
> Medical eligibility criteria (see p. 6), guidelines for when to start (see p. 10), and helping continuing users (see p. 16) are the same for the combined ring as for combined oral contraceptives.

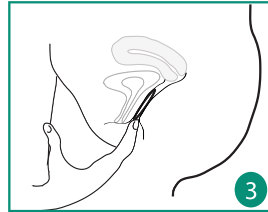
Providing the Combined Vaginal Ring

Explaining How to Use

Explain how to insert the ring

- She can choose the position most comfortable for her—for example, standing with one leg up, squatting, or lying down.
- She should press opposite sides of the ring together and gently push the folded ring entirely inside the vagina.
- The exact position is not important, but inserting it deeply helps it to stay in place, and she is less likely to feel it. The muscles of the vagina naturally keep the ring in place.





Explain that the ring must be left in place for 3 weeks

- She should keep the ring in place all the time, every day and night for 3 weeks.
- She can take the ring out at the end of the third week and dispose of it in a waste receptacle.

She should take out the ring for the fourth week

- To remove the ring, she should hook her index finger inside it, or squeeze the ring between her index and middle fingers, and pull it out.
- She will probably have monthly bleeding this week.
- If she forgets and leaves the ring in for as long as a fourth week, no special action is needed.

Ring should never be left out for more than 3 hours until the fourth week

- The ring can be removed for sex, cleaning, or other reasons, although removing it is not necessary.
- If the ring slips out, she should rinse it in clean water and immediately reinsert it.

Supporting the User

Instructions for Late Replacement or Removal

Left ring out for more than 3 hours during weeks 1 or 2?	• Put the ring back in as soon as possible. Use a backup method* for the next 7 days.
Left ring out for more than 3 hours during week 3?	• Stop the current cycle and discard the ring. • Insert a new ring immediately and keep it in place for 3 weeks, starting a new cycle. Use a backup method for the next 7 days. (Another option, if the ring was used continuously and correctly for the past 7 days: Leave the ring out and make the next 7 days the week with no ring. After those 7 days, insert a new ring, starting a new cycle, and keep it in place for 3 weeks. Use a backup method for the first 7 days with the new ring.)
Waited more than 7 days before inserting a new ring, or kept ring in longer than 4 weeks?	• Insert a new ring as soon as possible and begin a new 4-week cycle. Use a backup method for the first 7 days of ring use. • Also, if a new ring was inserted 3 or more days late (ring was left out for 10 days or more in a row) and unprotected sex took place in the past 5 days, consider taking emergency contraceptive pills (see Emergency Contraceptive Pills, p. 45).

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

CHAPTER 8

Implants

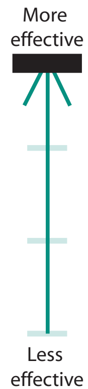
Key Points for Providers and Clients

- **Implants are small flexible rods or capsules** that are placed just under the skin of the upper arm.
- **Provide long-term pregnancy protection.** Very effective for 3 to 7 years, depending on the type of implant, immediately reversible.
- **Require specifically trained provider to insert and remove.** A woman cannot start or stop implants on her own.
- **Little required of the client once implants are in place.**
- **Bleeding changes are common but not harmful.** Typically, prolonged irregular bleeding over the first year, and then lighter, more regular bleeding or infrequent bleeding.

What Are Implants?

- Small plastic rods or capsules, each about the size of a matchstick, that release a progestin like the natural hormone progesterone in a woman's body.
- A specifically trained provider performs a minor surgical procedure to place the implants under the skin on the inside of a woman's upper arm.
- Do not contain estrogen, and so can be used throughout breastfeeding and by women who cannot use methods with estrogen.
- Many types of implants:
  - Jadelle: 2 rods, effective for 5 years
  - Implanon: 1 rod, effective for 3 years (studies are underway to see if it lasts 4 years)
  - Sino-Implant (II), also known as Femplant, Trust Implant, and Zarin: 2 rods, effective for 4 years (may be extended to 5 years)
  - Norplant: 6 capsules, labeled for 5 years of use (large studies have found it is effective for 7 years)
- Work primarily by:
  - Thickening cervical mucus (this blocks sperm from meeting an egg)
  - Disrupting the menstrual cycle, including preventing the release of eggs from the ovaries (ovulation)

How Effective?



One of the most effective and long-lasting methods:

- Less than 1 pregnancy per 100 women using implants over the first year (5 per 10,000 women). This means that 9,995 of every 10,000 women using implants will not become pregnant.
- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using implants.
  - Over 5 years of Jadelle use: About 1 pregnancy per 100 women
  - Over 3 years of Implanon use: Less than 1 pregnancy per 100 women (1 per 1,000 women)
  - Over 7 years of Norplant use: About 2 pregnancies per 100 women
- Jadelle, Sino-Implant (II), and Norplant implants start to lose effectiveness sooner for heavier women:
  - For women weighing 80 kg or more, Jadelle, Sino-Implant (II), and Norplant become less effective after 4 years of use.
  - For women weighing 70–79 kg, Norplant becomes less effective after 5 years of use.
  - These users may want to replace their implants sooner (see p. 130, Q&A 9).

Return of fertility after implants are removed: No delay

Protection against sexually transmitted infections (STIs): None

Why Some Women Say They Like Implants

- Do not require the user to do anything once they are inserted
- Prevent pregnancy very effectively
- Are long-lasting
- Do not interfere with sex

Side Effects, Health Benefits, Health Risks, and Complications

Side Effects (see Managing Any Problems, p. 124)

Some users report the following:

- Changes in bleeding patterns including:

  First several months:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Infrequent bleeding
  - No monthly bleeding

  After about one year:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Infrequent bleeding

  Implanon users are more likely to have infrequent or no monthly bleeding than irregular bleeding.
- Headaches
- Abdominal pain
- Acne (can improve or worsen)
- Weight change
- Breast tenderness
- Dizziness
- Mood changes
- Nausea

Other possible physical changes:

- Enlarged ovarian follicles

Known Health Benefits

Help protect against:

- Risks of pregnancy
- Symptomatic pelvic inflammatory disease

May help protect against:

- Iron-deficiency anemia

Known Health Risks

None

Complications

Uncommon:

- Infection at insertion site (most infections occur within the first 2 months after insertion)
- Difficult removal (rare if properly inserted and the provider is skilled at removal)

Rare:

- Expulsion of implant (expulsions most often occur within the first 4 months after insertion)

Correcting Misunderstandings (see also Questions and Answers, p. 128)

Implants:

- Stop working once they are removed. Their hormones do not remain in a woman's body.
- Can stop monthly bleeding, but this is not harmful. It is similar to not having monthly bleeding during pregnancy. Blood is not building up inside the woman.
- Do not make women infertile.
- Do not move to other parts of the body.
- Substantially reduce the risk of ectopic pregnancy.

Who Can and Cannot Use Implants

Safe and Suitable for Nearly All Women

Nearly all women can use implants safely and effectively, including women who:

- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion, miscarriage, or ectopic pregnancy
- Smoke cigarettes, regardless of woman's age or number of cigarettes smoked
- Are breastfeeding (starting as soon as 6 weeks after childbirth; however, see p. 129, Q&A 8)
- Have anemia now or in the past
- Have varicose veins
- Are infected with HIV, whether or not on antiretroviral therapy (see Implants for Women With HIV, p. 115)

Women can begin using implants:

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)

Medical Eligibility Criteria for

Implants

Ask the client the questions below about known medical conditions. Examinations and tests are not necessary. If she answers "no" to all of the questions, then she can have implants inserted if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still start using implants.

1. Are you breastfeeding a baby less than 6 weeks old?

❏ NO ❏ **YES** She can start using implants as soon as 6 weeks after childbirth (see Fully or nearly fully breastfeeding or Partially breastfeeding, p. 117).

2. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])

❏ NO ❏ **YES** If she reports serious active liver disease (jaundice, severe cirrhosis, liver tumor), do not provide implants. Help her choose a method without hormones.

3. Do you have a serious problem now with a blood clot in your legs or lungs?

❏ NO ❏ **YES** If she reports a current blood clot (not superficial clots), and she is not on anticoagulant therapy, do not provide implants. Help her choose a method without hormones.

4. Do you have vaginal bleeding that is unusual for you?

❏ NO ❏ **YES** If she has unexplained vaginal bleeding that suggests pregnancy or an underlying medical condition, implants could make diagnosis and monitoring of any treatment more difficult. Help her choose a method to use while being evaluated and treated (not progestin-only injectables, or a copper-bearing or hormonal IUD). After treatment, re-evaluate for use of implants.

5. Do you have or have you ever had breast cancer?

❏ NO ❏ **YES** Do not provide implants. Help her choose a method without hormones.

Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use implants. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use implants. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Breastfeeding and less than 6 weeks since giving birth (considering the risks of another pregnancy and that a woman may have limited further access to implants)
- Acute blood clot in deep veins of legs or lungs
- Unexplained vaginal bleeding before evaluation for possible serious underlying condition
- Had breast cancer more than 5 years ago, and it has not returned
- Severe liver disease, infection, or tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies

Implants for Women With HIV

- Women who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely use implants.
- Urge these women to use condoms along with implants. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.

Providing Implants

When to Start

IMPORTANT: A woman can start using implants any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 7 days after the start of her monthly bleeding (5 days for Implanon), no need for a backup method. • If it is more than 7 days after the start of her monthly bleeding (more than 5 days for Implanon), she can have implants inserted any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after insertion. • If she is switching from an IUD, she can have implants inserted immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
Switching from a hormonal method	• Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from injectables, she can have implants inserted when the repeat injection would have been given. No need for a backup method.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• If she gave birth less than 6 weeks ago, delay insertion until at least 6 weeks after giving birth. (See p. 129, Q&A 8.) • If her monthly bleeding has not returned, she can have implants inserted any time between 6 weeks and 6 months. No need for a backup method. • If her monthly bleeding has returned, she can have implants inserted as advised for women having menstrual cycles (see previous page).
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can have implants inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion. • If her monthly bleeding has returned, she can have implants inserted as advised for women having menstrual cycles (see previous page).
Partially breastfeeding	
Less than 6 weeks after giving birth	• Delay insertion until at least 6 weeks after giving birth. (See p. 129, Q&A 8.)
More than 6 weeks after giving birth	• If her monthly bleeding has not returned, she can have implants inserted any time it is reasonably certain she is not pregnant.† She will need a backup method for the first 7 days after insertion. • If her monthly bleeding has returned, she can have implants inserted as advised for women having menstrual cycles (see previous page).
Not breastfeeding	
Less than 4 weeks after giving birth	• She can have implants inserted at any time. No need for a backup method.

† *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may insert implants at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Woman's situation	When to start
Not breastfeeding (continued)	
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can have implants inserted any time it is reasonably certain she is not pregnant.[†] She will need a backup method for the first 7 days after insertion. • If her monthly bleeding has returned, she can have implants inserted as advised for women having menstrual cycles (see p. 116).
No monthly bleeding (not related to childbirth or breastfeeding)	• She can have implants inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.
After miscarriage or abortion	• Immediately. If implants are inserted within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can have implants inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.
After taking emergency contraceptive pills (ECPs)	• Implants can be inserted within 7 days after the start of her next monthly bleeding (within 5 days for Implanon) or any other time it is reasonably certain she is not pregnant. Give her a backup method, or oral contraceptives to start the day after she finishes taking the ECPs, to use until the implants are inserted.

[†] *Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may insert implants at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.*

Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes and other side effects must come before inserting implants. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

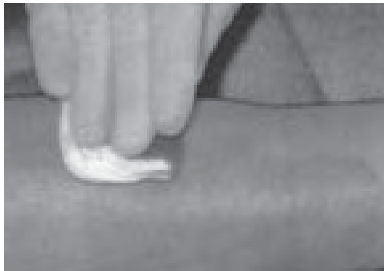
Describe the most common side effects	• Changes in her bleeding pattern: – Irregular bleeding that lasts more than 8 days at a time over the first year. – Regular, infrequent, or no bleeding at all later. • Headaches, abdominal pain, breast tenderness, and possibly other side effects.
Explain about these side effects	• Side effects are not signs of illness. • Most side effects usually become less or stop within the first year. • Common, but some women do not have them. • Client can come back for help if side effects bother her.

Inserting Implants

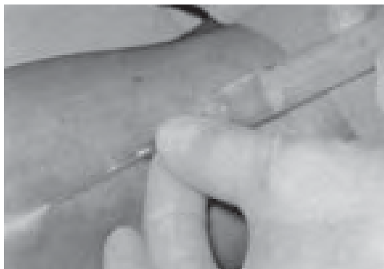
Explaining the Insertion Procedure for Jadelle and Norplant

A woman who has chosen implants needs to know what will happen during insertion. The following description can help explain the procedure to her. Learning to insert and remove implants requires training and practice under direct supervision. Therefore, this description is a summary and not detailed instructions.

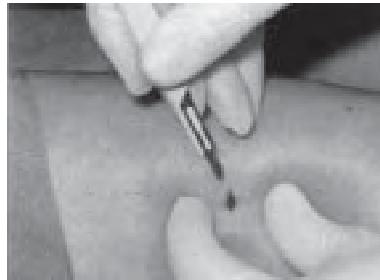
Inserting implants usually takes only a few minutes but can sometimes take longer, depending on the skill of the provider. Related complications are rare and also depend on the skill of the provider. (Implanon is inserted with a specially made applicator similar to a syringe. It does not require an incision.)



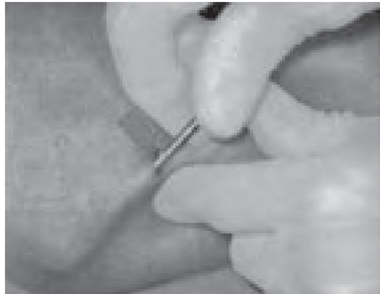
1. The provider uses proper infection-prevention procedures.



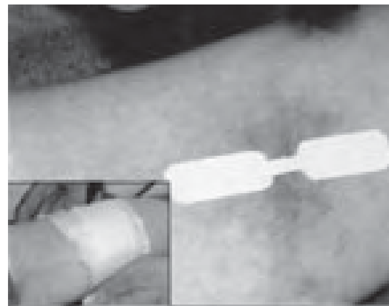
2. The woman receives an injection of local anesthetic under the skin of her arm to prevent pain while the implants are being inserted. This injection may sting. She stays fully awake throughout the procedure.



3. The provider makes a small incision in the skin on the inside of the upper arm.



4. The provider inserts the implants just under the skin. The woman may feel some pressure or tugging.



5. After all implants are inserted, the provider closes the incision with an adhesive bandage. Stitches are not needed. The incision is covered with a dry cloth and the arm is wrapped with gauze.

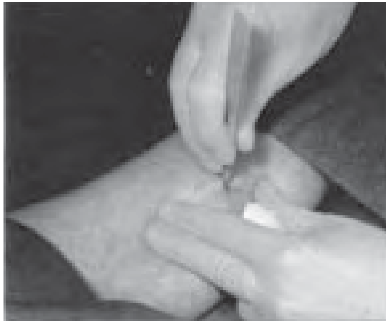
Removing Implants

IMPORTANT: Providers must not refuse or delay when a woman asks to have her implants removed, whatever her reason, whether it is personal or medical. All staff must understand and agree that she must not be pressured or forced to continue using implants.

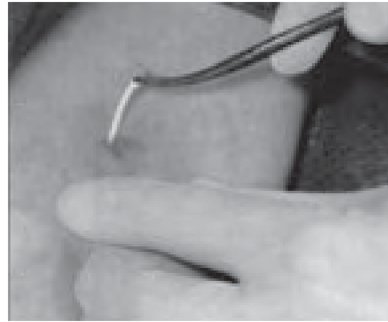
Explaining the Removal Procedure

A woman needs to know what will happen during removal. The following description can help explain the procedure to her. The same removal procedure is used for all types of implants.

1. The provider uses proper infection-prevention procedures.
2. The woman receives an injection of local anesthetic under the skin of her arm to prevent pain during implant removal. This injection may sting. She stays fully awake throughout the procedure.



3. The health care provider makes a small incision in the skin on the inside of the upper arm, near the site of insertion.



4. The provider uses an instrument to pull out each implant. A woman may feel tugging, slight pain, or soreness during the procedure and for a few days after.
5. The provider closes the incision with an adhesive bandage. Stitches are not needed. An elastic bandage may be placed over the adhesive bandage to apply gentle pressure for 2 or 3 days and keep down swelling.

If a woman wants new implants, they are placed above or below the site of the previous implants or in the other arm.

Supporting the User

Giving Specific Instructions

Keep arm dry	• She should keep the insertion area dry for 4 days. She can take off the elastic bandage or gauze after 2 days and the adhesive bandage after 5 days.
Expect soreness, bruising	• After the anesthetic wears off, her arm may be sore for a few days. She also may have swelling and bruising at the insertion site. This is common and will go away without treatment.
Length of pregnancy protection	• Discuss how to remember the date to return. • Give each woman the following information in writing on a reminder card, like the one shown below, if possible, and explain: – The type of implant she has – Date of insertion – Month and year when implants will need to be removed or replaced – Where to go if she has problems or questions with her implants
Have implants removed before they start to lose effectiveness	• Return or see another provider before the implants start losing effectiveness (for removal or, if she wishes, replacement).

Implant Reminder Card

Client's name: ____________________

Type of implant: ____________________

Date inserted: ____________________

Remove or replace by: Month: ______ Year: ______

If you have any problems or questions, go to:

(name and location of facility)

"Come Back Any Time": Reasons to Return

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; she has a major change in health status; or she thinks she might be pregnant. Also if:

- She has pain, heat, pus, or redness at the insertion site that becomes worse or does not go away, or she sees a rod coming out.
- She has gained a lot of weight. This may decrease the length of time her implants remain highly effective.

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Helping Continuing Users

IMPORTANT: No routine return visit is required until it is time to remove the implants. The client should be clearly invited to return any time she wishes, however.

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, p. 124).
3. Ask a long-term client if she has had any new health problems since her last visit. Address problems as appropriate. For new health problems that may require switching methods, see p. 127.
4. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.
5. If possible, weigh the client who is using Jadelle or Norplant implants. If her weight has changed enough to affect the duration of her implants' effectiveness, update her reminder card, if she has one, or give her a new reminder card with the proper date (see Question 9, p. 130).
6. If she wants to keep using implants and no new medical condition prevents it, remind her how much longer her implants will protect her from pregnancy.

Managing Any Problems

Problems Reported as Side Effects or Complications

May or may not be due to the method.

- Problems with side effects and complications affect women's satisfaction and use of implants. They deserve the provider's attention. If the client reports any side effects or complications, listen to her concerns, give her advice, and, if appropriate, treat.
- Offer to help the client choose another method—now, if she wishes, or if problems cannot be overcome.

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using implants experience irregular bleeding. It is not harmful and usually becomes less or stops after the first year of use.
- For modest short-term relief, she can take 800 mg ibuprofen or 500 mg mefenamic acid 3 times daily after meals for 5 days, beginning when irregular bleeding starts.
- If these drugs do not help her, she can try one of the following, beginning when irregular bleeding starts:
  - Combined oral contraceptives with the progestin levonorgestrel. Ask her to take one pill daily for 21 days.
  - 50 µg ethinyl estradiol daily for 21 days.
- If irregular bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 127).

No monthly bleeding

- Reassure her that some women stop having monthly bleeding when using implants, and this is not harmful. There is no need to lose blood every month. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. (Some women are happy to be free from monthly bleeding.)

Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)

- Reassure her that some women using implants experience heavy or prolonged bleeding. It is generally not harmful and usually becomes less or stops after a few months.
- For modest short-term relief, she can try any of the treatments for irregular bleeding, above, beginning when heavy bleeding starts. Combined oral contraceptives with 50 µg of ethinyl estradiol may work better than lower-dose pills.

- To help prevent anemia, suggest she take iron tablets and tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).
- If heavy or prolonged bleeding continues or starts after several months of normal or no monthly bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 127).

Ordinary headaches (nonmigrainous)

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Any headaches that get worse or occur more often during use of implants should be evaluated.

Mild abdominal pain

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Consider locally available remedies.

Acne

- If client wants to stop using implants because of acne, she can consider switching to COCs. Many women's acne improves with COC use.
- Consider locally available remedies.

Weight change

- Review diet and counsel as needed.

Breast tenderness

- Recommend that she wear a supportive bra (including during strenuous activity and sleep).
- Try hot or cold compresses.
- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Consider locally available remedies.

Mood changes or changes in sex drive

- Ask about changes in her life that could affect her mood or sex drive, including changes in her relationship with her partner. Give her support as appropriate.
- Clients who have serious mood changes such as major depression should be referred for care.
- Consider locally available remedies.

Nausea or dizziness

- Consider locally available remedies.

Pain after insertion or removal

- For pain after insertion, check that the bandage or gauze on her arm is not too tight.
- Put a new bandage on the arm and advise her to avoid pressing on the site for a few days.
- Give her aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.

Infection at the insertion site (redness, heat, pain, pus)

- Do not remove the implants.
- Clean the infected area with soap and water or antiseptic.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if the infection does not clear. If infection has not cleared, remove the implants or refer for removal.
- Expulsion or partial expulsion often follows infection. Ask the client to return if she notices an implant coming out.

Abscess (pocket of pus under the skin due to infection)

- Clean the area with antiseptic.
- Cut open (incise) and drain the abscess.
- Treat the wound.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if she has heat, redness, pain, or drainage of the wound. If infection is present when she returns, remove the implants or refer for removal.

Expulsion (when one or more implants begins to come out of the arm)

- Rare. Usually occurs within a few months of insertion or with infection.
- If no infection is present, replace the expelled rod or capsule through a new incision near the other rods or capsules, or refer for replacement.

Severe pain in lower abdomen

- Abdominal pain may be due to various problems, such as enlarged ovarian follicles or cysts.
  - A woman can continue to use implants during evaluation.
  - There is no need to treat enlarged ovarian follicles or cysts unless they grow abnormally large, twist, or burst. Reassure the client that

they usually disappear on their own. To be sure the problem is resolving, see the client again in 6 weeks, if possible.

- With severe abdominal pain, be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare and not caused by implants, but it can be life-threatening (see p. 129, Question 7). In the early stages of ectopic pregnancy, symptoms may be absent or mild, but eventually they will become severe. A combination of these signs or symptoms should increase suspicion of ectopic pregnancy:
  - Unusual abdominal pain or tenderness
  - Abnormal vaginal bleeding or no monthly bleeding—especially if this is a change from her usual bleeding pattern
  - Light-headedness or dizziness
  - Fainting
- If ectopic pregnancy or other serious health condition is suspected, refer at once for immediate diagnosis and care. (See Female Sterilization, Managing Ectopic Pregnancy, p. 179, for more on ectopic pregnancies.)

New Problems That May Require Switching Methods

May or may not be due to method.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method)

- Refer or evaluate by history and pelvic examination. Diagnose and treat as appropriate.
- If no cause of bleeding can be found, consider stopping implants to make diagnosis easier. Provide another method of her choice to use until the condition is evaluated and treated (not progestin-only injectables, or a copper-bearing or hormonal IUD).
- If bleeding is caused by sexually transmitted infection or pelvic inflammatory disease, she can continue using implants during treatment.

Migraine headaches (see Identifying Migraine Headaches and Auras, p. 368)

- If she has migraine headaches without aura, she can continue to use implants if she wishes.
- If she has migraine aura, remove the implants. Help her choose a method without hormones.

Certain serious health conditions (suspected blood clots in deep veins of legs or lungs, serious liver disease, or breast cancer). See Signs and Symptoms of Serious Health Conditions, p. 320.

- Remove the implants or refer for removal.
- Give her a backup method to use until her condition is evaluated.
- Refer for diagnosis and care if not already under care.

Heart disease due to blocked or narrowed arteries (ischemic heart disease) **or stroke**

- A woman who has one of these conditions can safely start implants. If, however, the condition develops while she is using implants:
  - Remove the implants or refer for removal.
  - Help her choose a method without hormones.
  - Refer for diagnosis and care if not already under care.

Suspected pregnancy

- Assess for pregnancy, including ectopic pregnancy.
- Remove the implants or refer for removal if she will carry the pregnancy to term.
- There are no known risks to a fetus conceived while a woman has implants in place (see Question 5, next page).

Questions and Answers About Implants

1. Do users of implants require follow-up visits?

No. Routine periodic visits are not necessary for implant users. Annual visits may be helpful for other preventive care, but they are not required. Of course, women are welcome to return at any time with questions.

2. Can implants be left permanently in a woman's arm?

Leaving the implants in place beyond their effective lifespan is generally not recommended if the woman continues to be at risk of pregnancy. The implants themselves are not dangerous, but as the hormone levels in the implants drop, they become less and less effective.

3. Do implants cause cancer?

No. Studies have not shown increased risk of any cancer with use of implants.

4. **How long does is take to become pregnant after the implants are removed?**

   Women who stop using implants can become pregnant as quickly as women who stop nonhormonal methods. Implants do not delay the return of a woman's fertility after they are removed. The bleeding pattern a woman had before she used implants generally returns after they are removed. Some women may have to wait a few months before their usual bleeding pattern returns.

5. **Do implants cause birth defects? Will the fetus be harmed if a woman accidentally becomes pregnant with implants in place?**

   No. Good evidence shows that implants will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while using implants or accidentally has implants inserted when she is already pregnant.

6. **Can implants move around within a woman's body or come out of her arm?**

   Implants do not move around in a woman's body. The implants remain where they are inserted until they are removed. Rarely, a rod may start to come out, most often in the first 4 months after insertion. This usually happens because they were not inserted well or because of an infection where they were inserted. In these cases, the woman will see the implants coming out. Some women may have a sudden change in bleeding pattern. If a woman notices a rod coming out, she should start using a backup method and return to the clinic at once.

7. **Do implants increase the risk of ectopic pregnancy?**

   No. On the contrary, implants greatly reduce the risk of ectopic pregnancy. Ectopic pregnancies are extremely rare among implant users. The rate of ectopic pregnancy among women with implants is 6 per 100,000 women per year. The rate of ectopic pregnancy among women in the United States using no contraceptive method is 650 per 100,000 women per year.

   On the very rare occasions that implants fail and pregnancy occurs, 10 to 17 of every 100 of these pregnancies are ectopic. Thus, the great majority of pregnancies after implants fail are not ectopic. Still, ectopic pregnancy can be life-threatening, so a provider should be aware that ectopic pregnancy is possible if implants fail.

8. **How soon can a breastfeeding woman start a progestin-only method—implants, progestin-only pills or injectables, or LNG-IUD?**

   WHO guidance calls for waiting until at least 6 weeks after childbirth to start a progestin-only contraceptive (4 weeks for the LNG-IUD). In special cases a provider could make the clinical judgment that a woman can start a progestin-only method sooner (see p. 115).

A WHO expert consultation in 2008 endorsed WHO's current guidance, based on theoretical concerns about the effect on infant development of hormones in breast milk. These experts noted, however, that, where pregnancy risks are high and access to services is limited, progestin-only methods may be among the few available. Also, starting implants and IUDs requires providers with special training. These providers may be available only when a woman gives birth. The experts concluded, "Any decisions regarding choice of a contraceptive method should also consider these facts."

Also note: Guidance in some countries, based on their own expert panel reviews, allows breastfeeding women to start progestin-only methods at any time.[‡] This includes starting immediately postpartum, a long-standing practice in these countries.

9. Should heavy women avoid implants?

No. These women should know, however, that they need to have Jadelle or Norplant implants replaced sooner to maintain a high level of protection from pregnancy. In studies of Norplant implants pregnancy rates among women who weighed 70–79 kg were 2 per 100 women in the sixth year of use. Such women should have their implants replaced, if they wish, after 5 years. Among women who used Norplant or Jadelle implants and who weighed 80 kg or more, the pregnancy rate was 6 per 100 in the fifth year of use. These women should have their implants replaced after 4 years. Studies of Implanon have not found that weight decreases effectiveness within the lifespan approved for this type of implant.

10. What should be done if an implant user has an ovarian cyst?

The great majority of cysts are not true cysts but actually fluid-filled structures in the ovary (follicles) that continue to grow beyond the usual size in a normal menstrual cycle. They may cause some mild abdominal pain, but they only require treatment if they grow abnormally large, twist, or burst. These follicles usually go away without treatment (see Severe pain in lower abdomen, p. 126).

11. Can a woman work soon after having implants inserted?

Yes, a woman can do her usual work immediately after leaving the clinic as long as she does not bump the insertion site or get it wet.

12. Must a woman have a pelvic examination before she can have implants inserted?

No. Instead, asking the right questions can help the provider be reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372). No condition that can be detected by a pelvic examination rules out use of implants.

[‡] See, for example, Faculty of Sexual and Reproductive Healthcare (FRSH). *UK Medical Eligibility Criteria*. London, FSRH, 2006. and Centers for Disease Control. U.S. medical eligibility criteria for contraceptive use, 2010. Morbidity and Mortality Weekly Report 59. May 28, 2010.

Copper-Bearing Intrauterine Device

This chapter describes primarily the TCu-380A intrauterine device (for the Levonorgestrel Intrauterine Device, see p. 157).

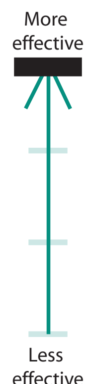
Key Points for Providers and Clients

- **Long-term pregnancy protection.** Shown to be very effective for 12 years, immediately reversible.
- **Inserted into the uterus by a specifically trained provider.**
- **Little required of the client once the IUD is in place.**
- **Bleeding changes are common.** Typically, longer and heavier bleeding and more cramps or pain during monthly bleeding, especially in the first 3 to 6 months.

What Is the Intrauterine Device?

- The copper-bearing intrauterine device (IUD) is a small, flexible plastic frame with copper sleeves or wire around it. A specifically trained health care provider inserts it into a woman's uterus through her vagina and cervix.
- Almost all types of IUDs have one or two strings, or threads, tied to them. The strings hang through the cervix into the vagina.
- Works primarily by causing a chemical change that damages sperm and egg before they can meet.

How Effective?



One of the most effective and long-lasting methods:

- Less than 1 pregnancy per 100 women using an IUD over the first year (6 to 8 per 1,000 women). This means that 992 to 994 of every 1,000 women using IUDs will not become pregnant.
- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using the IUD.
  - Over 10 years of IUD use: About 2 pregnancies per 100 women

- Studies have found that the TCu-380A is effective for 12 years. The TCu-380A is labeled for up to 10 years of use, however. (Providers should follow program guidelines as to when the IUD should be removed.)

Return of fertility after IUD is removed: No delay

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, Health Risks, and Complications

Side Effects (see Managing Any Problems, p. 149)

Some users report the following:

- Changes in bleeding patterns (especially in the first 3 to 6 months) including:
  - Prolonged and heavy monthly bleeding
  - Irregular bleeding
  - More cramps and pain during monthly bleeding

Known Health Benefits

Helps protect against:

- Risks of pregnancy

May help protect against:

- Cancer of the lining of the uterus (endometrial cancer)

Known Health Risks

Uncommon:

- May contribute to anemia if a woman already has low iron blood stores before insertion and the IUD causes heavier monthly bleeding

Rare:

- Pelvic inflammatory disease (PID) may occur if the woman has chlamydia or gonorrhea at the time of IUD insertion

Complications

Rare:

- Puncturing (perforation) of the wall of the uterus by the IUD or an instrument used for insertion. Usually heals without treatment.
- Miscarriage, preterm birth, or infection in the rare case that the woman becomes pregnant with the IUD in place.

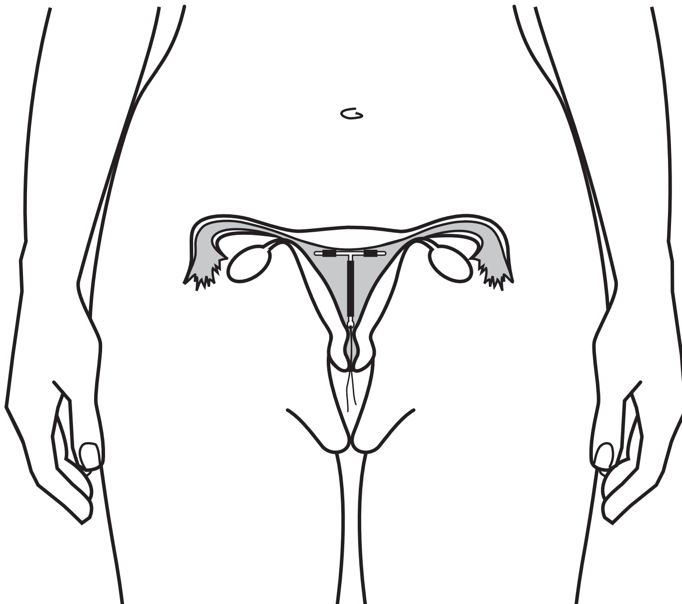
Correcting Misunderstandings (see also Questions and Answers, p. 154)

Intrauterine devices:

- Rarely lead to PID.
- Do not increase the risk of contracting STIs, including HIV.
- Do not increase the risk of miscarriage when a woman becomes pregnant after the IUD is removed.
- Do not make women infertile.
- Do not cause birth defects.
- Do not cause cancer.
- Do not move to the heart or brain.
- Do not cause discomfort or pain for the woman during sex.
- Substantially reduce the risk of ectopic pregnancy.

Why Some Women Say They Like the IUD

- Prevents pregnancy very effectively
- Is long-lasting
- Has no further costs after the IUD is inserted
- Does not require the user to do anything once the IUD is inserted



Who Can and Cannot Use the Copper-Bearing IUD

Safe and Suitable for Nearly All Women

Most women can use IUDs safely and effectively, including women who:

- Have or have not had children
- Are not married
- Are of any age, including adolescents and women over 40 years old
- Have just had an abortion or miscarriage (if no evidence of infection)
- Are breastfeeding
- Do hard physical work
- Have had ectopic pregnancy
- Have had pelvic inflammatory disease (PID)
- Have vaginal infections
- Have anemia
- Are infected with HIV or on antiretroviral therapy and doing well (see IUDs for Women With HIV, p. 138)

Women can begin using IUDs:

- Without STI testing
- Without an HIV test
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination

Medical Eligibility Criteria for

Copper-Bearing IUDs

Ask the client the questions below about known medical conditions. If she answers "no" to all of the questions, then she can have an IUD inserted if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still have an IUD inserted. These questions also apply to the levonorgestrel IUD (see p. 160).

1. Did you give birth more than 48 hours ago but less than 4 weeks ago?

❑ NO ❑ **YES** Delay inserting an IUD until 4 or more weeks after childbirth (see Soon after childbirth, p. 140).

2. Do you have an infection following childbirth or abortion?

❑ NO ❑ **YES** If she currently has infection of the reproductive organs during the first 6 weeks after childbirth (puerperal sepsis) or she just had an abortion-related infection in the uterus (septic abortion), do not insert the IUD. Treat or refer if she is not already receiving care. Help her choose another method or offer a backup method.* After treatment, re-evaluate for IUD use.

3. Do you have vaginal bleeding that is unusual for you?

❑ NO ❑ **YES** If she has unexplained vaginal bleeding that suggests pregnancy or an underlying medical condition, use of an IUD could make diagnosis and monitoring of any treatment more difficult. Help her choose a method to use while being evaluated and treated (but not a hormonal IUD, progestin-only injectables, or implants). After treatment, re-evaluate for IUD use.

4. Do you have any female conditions or problems (gynecologic or obstetric conditions or problems), such as genital cancer or pelvic tuberculosis? If so, what problems?

❑ NO ❑ **YES** Known current cervical, endometrial, or ovarian cancer; gestational trophoblast disease; pelvic tuberculosis: Do not insert an IUD. Treat or refer for care if she is not already receiving care. Help her choose another method. In case of pelvic tuberculosis, re-evaluate for IUD use after treatment.

(Continued on next page)

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Medical Eligibility Criteria for Copper-Bearing IUDs (continued)

5. Do you have AIDS?

❑ NO ❑ **YES** Do not insert an IUD if she has AIDS unless she is clinically well on antiretroviral therapy. If she is infected with HIV but does not have AIDS, she can use an IUD. If a woman who has an IUD in place develops AIDS, she can keep the IUD (see IUDs for Women With HIV, p. 138).

6. Assess whether she is at very high individual risk for gonorrhea or chlamydia.

Women who have a very high individual likelihood of exposure to gonorrhea or chlamydia should not have an IUD inserted (see Assessing Women for Risk of Sexually Transmitted Infections, p. 138).

7. Assess whether the client might be pregnant.

Ask the client the questions in the pregnancy checklist (see p. 372). If she answers "yes" to any question, she can have an IUD inserted (see also When to Start, p. 140).

For complete classifications, see Medical Eligibility Criteria for Contraceptive Use, p. 324. Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not have an IUD inserted. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use an IUD. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Between 48 hours and 4 weeks since giving birth
- Noncancerous (benign) gestational trophoblast disease
- Current ovarian cancer
- Is at very high individual risk for gonorrhea or chlamydia at the time of insertion
- Has AIDS and is not on antiretroviral therapy and clinically well
- Has systemic lupus erythematosus with severe thrombocytopenia

Screening Questions for Pelvic Examination Before IUD Insertion

When performing the pelvic examination, asking yourself the questions below helps you check for signs of conditions that would rule out IUD insertion. If the answer to all of the questions is "no," then the client can have an IUD inserted. If the answer to any question is "yes," do not insert an IUD.

For questions 1 through 5, if the answer is "yes," refer for diagnosis and treatment as appropriate. Help her choose another method and counsel her about condom use if she faces any risk of sexually transmitted infections (STIs). Give her condoms, if possible. If STI or pelvic inflammatory disease (PID) is confirmed and she still wants an IUD, it may be inserted as soon as she finishes treatment, if she is not at risk for reinfection before insertion.

1. Is there any type of ulcer on the vulva, vagina, or cervix?

❑ NO ❑ **YES** Possible STI.

2. Does the client feel pain in her lower abdomen when you move the cervix?

❑ NO ❑ **YES** Possible PID.

3. Is there tenderness in the uterus, ovaries, or fallopian tubes (adnexal tenderness)?

❑ NO ❑ **YES** Possible PID.

4. Is there a purulent cervical discharge?

❑ NO ❑ **YES** Possible STI or PID.

5. Does the cervix bleed easily when touched?

❑ NO ❑ **YES** Possible STI or cervical cancer.

6. Is there an anatomical abnormality of the uterine cavity that will prevent correct IUD insertion?

❑ NO ❑ **YES** If an anatomical abnormality distorts the uterine cavity, proper IUD placement may not be possible. Help her choose another method.

7. Were you unable to determine the size and/or position of the uterus?

❑ NO ❑ **YES** Determining the size and position of the uterus before IUD insertion is essential to ensure high placement of the IUD and to minimize risk of perforation. If size and position cannot be determined, do not insert an IUD. Help her choose another method.

Intrauterine Devices for Women With HIV

- Women who are at risk of HIV or are infected with HIV can safely have the IUD inserted.
- Women who have AIDS, are on antiretroviral (ARV) therapy, and are clinically well can safely have the IUD inserted.
- Women who have AIDS but who are not on ARV therapy or who are not clinically well should *not* have the IUD inserted.
- If a woman develops AIDS while she has an IUD in place, it does not need to be removed.
- IUD users with AIDS should be monitored for pelvic inflammatory disease.
- Urge women to use condoms along with the IUD. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.

Assessing Women for Risk of Sexually Transmitted Infections

A woman who has gonorrhea or chlamydia now should not have an IUD inserted. Having these sexually transmitted infections (STIs) at insertion may increase the risk of pelvic inflammatory disease. These STIs may be difficult to diagnose clinically, however, and reliable laboratory tests are time-consuming, expensive, and often unavailable. Without clinical signs or symptoms and without laboratory testing, the only indication that a woman might already have an STI is whether her behavior or her situation places her at *very high individual risk* of infection. If this risk for the *individual* client is very high, she generally should not have an IUD inserted.[‡] (Local STI prevalence rates are not a basis for judging individual risk.)

There is no universal set of questions that will determine if a woman is at very high individual risk for gonorrhea and chlamydia. Instead of asking questions, providers can discuss with the client the personal behaviors and the situations in their community that are most likely to expose women to STIs.

Steps to take:

1. Tell the client that a woman who faces a very high individual risk of some STIs usually should not have an IUD inserted.

[‡] In contrast, if a *current* IUD user's situation changes and she finds herself at very high individual risk for gonorrhea or chlamydia, she can keep using her IUD.

2. Ask the woman to consider her own risk and to think about whether she might have an STI. A woman is often the best judge of her own risk.[§] She does not have to tell the provider about her behavior or her partner's behavior. Providers can explain possibly risky situations that may place a woman at very high individual risk. The client can think about whether such situations occurred recently (in the past 3 months or so). If so, she may have an STI now and may want to choose a method other than the IUD.

   Possibly risky situations include:

   - A sexual partner has STI symptoms such as pus coming from his penis, pain or burning during urination, or an open sore in the genital area
   - She or a sexual partner was diagnosed with an STI recently
   - She has had more than one sexual partner recently
   - She has a sexual partner who has had other partners recently

   Also, a provider can mention other high-risk situations that exist locally.

All of these situations pose less risk if a woman or her partner uses condoms consistently and correctly.

3. Ask if she thinks she is a good candidate for an IUD or would like to consider other contraceptive methods. If, after considering her individual risk, she thinks she is a good candidate, and she is eligible, provide her with an IUD. If she wants to consider other methods or if you have strong reason to believe that the client is at very high individual risk of infection, help her choose another method.

Note: If she still wants the IUD while at very high individual risk of gonorrhea and chlamydia, and reliable testing is available, a woman who tests negative can have an IUD inserted. A woman who tests positive can have an IUD inserted as soon as she finishes treatment, if she is not at risk of reinfection by the time of insertion.

In special circumstances, if other, more appropriate methods are not available or not acceptable, a health care provider who can carefully assess a specific woman's condition and situation may decide that a woman at very high individual risk can have the IUD inserted even if STI testing is not available. (Depending on the circumstances, the provider may consider presumptively treating her with a full curative dose of antibiotics effective against both gonorrhea and chlamydia and inserting the IUD after she finishes treatment.) Whether or not she receives presumptive treatment, the provider should be sure that the client can return for the follow-up visit, will be carefully checked for infection, and will be treated immediately if needed. She should be asked to return at once if she develops a fever and either lower abdominal pain or abnormal vaginal discharge or both.

[§] Any woman who thinks she might have an STI should seek care immediately.

Providing the Intrauterine Device

When to Start

IMPORTANT: In many cases a woman can start the IUD any time it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to start
Having menstrual cycles	**Any time of the month** • If she is starting within 12 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 12 days after the start of her monthly bleeding, she can have the IUD inserted any time it is reasonably certain she is not pregnant. No need for a backup method.
Switching from another method	• Immediately, if she has been using the method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from injectables, she can have the IUD inserted when the next injection would have been given. No need for a backup method.
Soon after childbirth	• Any time within 48 hours after giving birth, including by caesarean delivery. (Provider needs specific training in postpartum insertion.) Fewest expulsions when done just after delivery of placenta (if possible). • If it is more than 48 hours after giving birth, delay until 4 weeks or more after giving birth.
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• If her monthly bleeding has not returned, she can have the IUD inserted any time between 4 weeks and 6 months after giving birth. No need for a backup method. • If her monthly bleeding has returned, she can have the IUD inserted as advised for women having menstrual cycles (see above).

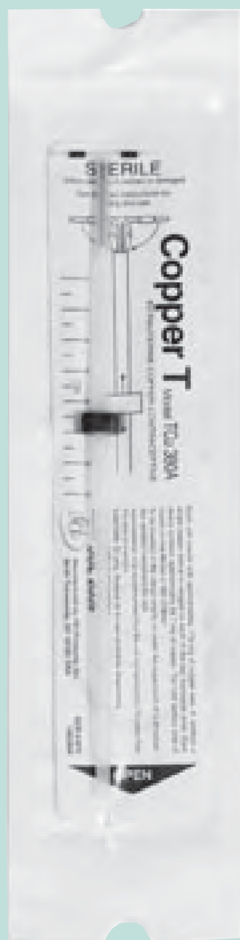
Woman's situation	When to start
Fully or nearly fully breastfeeding (continued)	
More than 6 months after giving birth	• If her monthly bleeding has not returned, she can have the IUD inserted any time it is reasonably certain she is not pregnant. No need for a backup method. • If her monthly bleeding has returned, she can have the IUD inserted as advised for women having menstrual cycles (see previous page).
Partially breastfeeding or not breastfeeding	
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can have the IUD inserted *if it can be determined that she is not pregnant.* No need for a backup method. • If her monthly bleeding has returned, she can have the IUD inserted as advised for women having menstrual cycles (see previous page).
No monthly bleeding (not related to childbirth or breastfeeding)	• Any time *if it can be determined that she is not pregnant.* No need for a backup method.
After miscarriage or abortion	• Immediately, if the IUD is inserted within 12 days after first- or second-trimester abortion or miscarriage and if no infection is present. No need for a backup method. • If it is more than 12 days after first- or second-trimester miscarriage or abortion and no infection is present, she can have the IUD inserted any time it is reasonably certain she is not pregnant. No need for a backup method. • If infection is present, treat or refer and help the client choose another method. If she still wants the IUD, it can be inserted after the infection has completely cleared. • IUD insertion after second-trimester abortion or miscarriage requires specific training. If not specifically trained, delay insertion until at least 4 weeks after miscarriage or abortion.

Woman's situation	When to start
For emergency contraception	• Within 5 days after unprotected sex. • When the time of ovulation can be estimated, she can have an IUD inserted up to 5 days after ovulation. Sometimes this may be more than 5 days after unprotected sex.
After taking emergency contraceptive pills (ECPs)	• The IUD can be inserted on the same day that she takes the ECPs. No need for a backup method.

Preventing Infection at IUD Insertion

Proper insertion technique can help prevent many problems, such as infection, expulsion, and perforation.

- Follow proper infection-prevention procedures.
- Use high-level disinfected or sterile instruments. High-level disinfect by boiling, steaming, or soaking them in disinfectant chemicals.
- Use a new, presterilized IUD that is packaged with its inserter.
- The "no-touch" insertion technique is best. This includes not letting the loaded IUD or uterine sound touch any unsterile surfaces (for example, hands, speculum, vagina, table top). The no-touch technique involves:
  - – Loading the IUD into the inserter while the IUD is still in the sterile package, to avoid touching the IUD directly
  - – Cleaning the cervix thoroughly with antiseptic before IUD insertion
  - – Being careful not to touch the vaginal wall or speculum blades with the uterine sound or loaded IUD inserter
  - – Passing both the uterine sound and the loaded IUD inserter only once each through the cervical canal



Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes must come before IUD insertion. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• Changes in her bleeding pattern: – Prolonged and heavy monthly bleeding – Irregular bleeding – More cramps and pain during monthly bleeding
Explain about these side effects	• Bleeding changes are not signs of illness. • Usually become less after the first several months after insertion. • Client can come back for help if problems bother her.

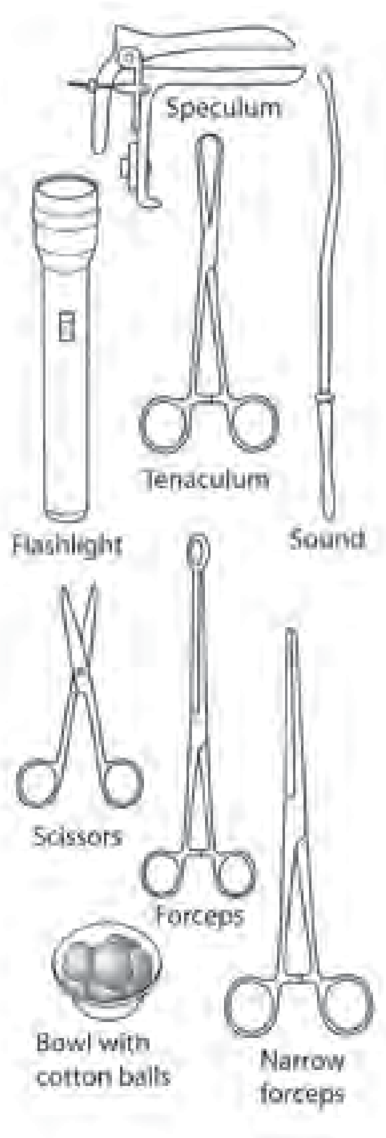
Inserting the IUD

Talk with the client before the procedure	• Explain the insertion procedure (see p. 144). • Show her the speculum, tenaculum, and the IUD and inserter in the package. • Tell her that she will experience some discomfort or cramping during the procedure, and that this is to be expected. • Ask her to tell you any time that she feels discomfort or pain. • Ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever may be given 30 minutes before insertion to help reduce cramping and pain. Do not give aspirin, which slows blood clotting.
Talk with the client during the procedure	• Tell her what is happening, step by step, and reassure her. • Alert her before a step that may cause pain or might startle her. • Ask from time to time if she is feeling pain.

Explaining the Insertion Procedure

A woman who has chosen the IUD needs to know what will happen during insertion. The following description can help explain the procedure to her. Learning IUD insertion requires training and practice under direct supervision. Therefore, this description is a summary and not detailed instructions.

1. The provider conducts a pelvic examination to assess eligibility (see Screening Questions for Pelvic Examination Before IUD Insertion, p. 137). The provider first does the bimanual examination and then inserts a speculum into the vagina to inspect the cervix.
2. The provider cleans the cervix and vagina with appropriate antiseptic.
3. The provider slowly inserts the tenaculum through the speculum and closes the tenaculum just enough to gently hold the cervix and uterus steady.
4. The provider slowly and gently passes the uterine sound through the cervix to measure the depth and position of the uterus.
5. The provider loads the IUD into the inserter while both are still in the unopened sterile package.
6. The provider slowly and gently inserts the IUD and removes the inserter.
7. The provider cuts the strings on the IUD, leaving about 3 centimeters hanging out of the cervix.
8. After the insertion, the woman rests. She remains on the examination table until she feels ready to get dressed.



Supporting the User

Giving Specific Instructions

Expect cramping and pain

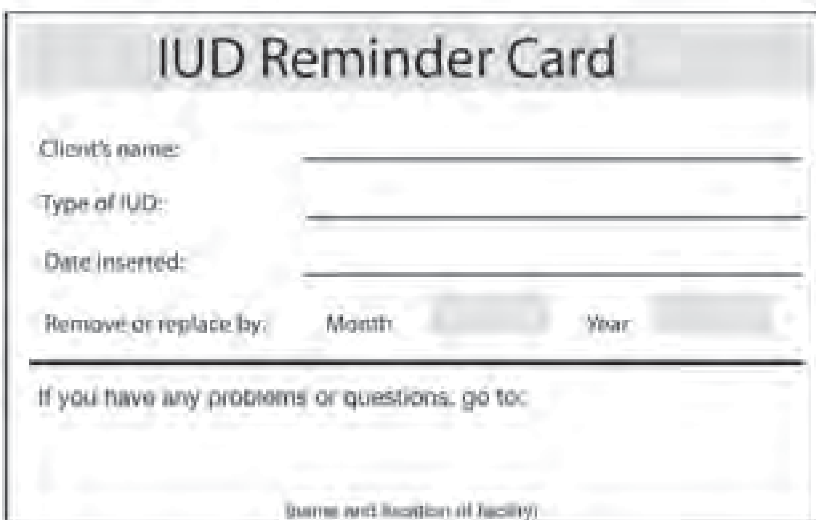
- She can expect some cramping and pain for a few days after insertion.
- Suggest ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever as needed.
- Also, she can expect some bleeding or spotting immediately after insertion. This may continue for 3 to 6 months.

She can check the strings

- If she wants, she can check her IUD strings from time to time, especially in the first few months and after monthly bleeding, to confirm that her IUD is still in place (see Question 10, p. 156).

Length of pregnancy protection

- Discuss how to remember the date to return.
- Give each woman the following information in writing on a reminder card, like the one shown below, if possible, and explain:
  - The type of IUD she has
  - Date of IUD insertion
  - Month and year when IUD will need to be removed or replaced
  - Where to go if she has problems or questions with her IUD



IUD Reminder Card

Client's name: ______________________

Type of IUD: ______________________

Date inserted: ______________________

Remove or replace by: Month ______ Year ______

If you have any problems or questions, go to:

(name and location of facility)

Follow-up visit	• A follow-up visit after her first monthly bleeding or 3 to 6 weeks after IUD insertion is recommended. No woman should be denied an IUD, however, because follow-up would be difficult or not possible.

"Come Back Any Time": Reasons to Return

Assure every client that she is welcome to come back any time—for example, if she has problems, questions, or wants another method; or she has a major change in health status. Also if:

- She thinks the IUD might be out of place. For example, she:
  - Feels the strings are missing.
  - Feels the hard plastic of an IUD that has partially come out.
- She has symptoms of pelvic inflammatory disease (increasing or severe pain in the lower abdomen, pain during sex, unusual vaginal discharge, fever, chills, nausea, and/or vomiting), especially in the first 20 days after insertion.
- She thinks she might be pregnant.

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Helping Continuing Users

Post-Insertion Follow-Up Visit (3 to 6 Weeks)

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything to discuss.
2. Ask especially if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, p. 149).
3. Ask her if she has:
   - Increasing or severe abdominal pain or pain during sex or urination
   - Unusual vaginal discharge
   - Fever or chills
   - Signs or symptoms of pregnancy (see p. 371 for common signs and symptoms)
   - Not been able to feel strings (if she has checked them)
   - Felt the hard plastic of an IUD that has partially come out

4. A routine pelvic examination at the follow-up visit is not required. It may be appropriate in some settings or for some clients, however. Conduct a pelvic examination particularly if the client's answers lead you to suspect:
   - A sexually transmitted infection or pelvic inflammatory disease
   - The IUD has partially or completely come out

Any Visit

1. Ask how the client is doing with the method and about bleeding changes (see Post-Insertion Follow-Up Visit, Items 1 and 2, previous page).
2. Ask a long-term client if she has had any new health problems. Address problems as appropriate. For new health problems that may require switching methods, see p. 153.
3. Ask a long-term client about major life changes that may affect her needs—particularly plans for having children and STI/HIV risk. Follow up as needed.
4. Remind her how much longer the IUD will protect her from pregnancy.

Removing the Intrauterine Device

IMPORTANT: Providers must not refuse or delay when a woman asks to have her IUD removed, whatever her reason, whether it is personal or medical. All staff must understand and agree that she must not be pressured or forced to continue using the IUD.

If a woman is finding side effects difficult to tolerate, first discuss the problems she is having (see Managing Any Problems, p. 149). See if she would rather try to manage the problem or to have the IUD removed immediately.

Removing an IUD is usually simple. It can be done any time of the month. Removal may be easier during monthly bleeding, when the cervix is naturally softened. In cases of uterine perforation or if removal is not easy, refer the woman to an experienced clinician who can use an appropriate removal technique.

Explaining the Removal Procedure

Before removing the IUD, explain what will happen during removal:

1. The provider inserts a speculum to see the cervix and IUD strings and carefully cleans the cervix and vagina with an antiseptic solution, such as iodine.
2. The provider asks the woman to take slow, deep breaths and to relax. The woman should say if she feels pain during the procedure.
3. Using narrow forceps, the provider pulls the IUD strings slowly and gently until the IUD comes completely out of the cervix.

Switching From an IUD to Another Method

These guidelines ensure that the client is protected from pregnancy without interruption when switching from a copper-bearing IUD or a hormonal IUD to another method. See also When to Start for each method.

Switching to	When to start
Combined oral contraceptives (COCs), **progestin-only pills** (POPs), **progestin-only injectables, monthly injectables, combined patch, combined vaginal ring, or implants**	• If starting during the first 7 days of monthly bleeding (first 5 days for COCs and POPs), start the hormonal method now and remove the IUD. No need for a backup method. • If starting after the first 7 days of monthly bleeding (after the first 5 days for COCs and POPs) and she has had sex since her last monthly bleeding, start the hormonal method now. It is recommended that the IUD be kept in place until her next monthly bleeding. • If starting after the first 7 days of monthly bleeding (after the first 5 days for COCs and POPs) and she has *not* had sex since her last monthly bleeding, the IUD can stay in place and be removed during her next monthly bleeding, or the IUD can be removed and she can use a backup method* for the next 7 days (2 days for POPs).
Male or female condoms, spermicides, diaphragms, cervical caps, or withdrawal	• Immediately the next time she has sex after the IUD is removed.
Fertility awareness methods	• Immediately after the IUD is removed.
Female sterilization	• If starting during the first 7 days of monthly bleeding, remove the IUD and perform the female sterilization procedure. No need for a backup method. • If starting after the first 7 days of monthly bleeding, perform the sterilization procedure. The IUD can be kept in place until her follow-up visit or her next monthly bleeding. If a follow-up visit is not possible, remove the IUD at the time of sterilization. No need for a backup method.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Switching to	When to start
Vasectomy	• Any time • The woman can keep the IUD for 3 months after her partner's vasectomy to keep preventing pregnancy until the vasectomy is fully effective.

Managing Any Problems

Problems Reported As Side Effects or Complications

May or may not be due to the method.

- Problems with side effects or complications affect women's satisfaction and use of IUDs. They deserve the provider's attention. If the client reports any side effects or complications, listen to her concerns, give her advice, and, if appropriate, treat.
- Offer to help her choose another method—now, if she wishes, or if problems cannot be overcome.

Heavy or prolonged bleeding (twice as much as usual or longer than 8 days)

- Reassure her that many women using IUDs experience heavy or prolonged bleeding. It is generally not harmful and usually becomes less or stops after the first several months of use.
- For modest short-term relief she can try (one at a time):
  - Tranexamic acid (1500 mg) 3 times daily for 3 days, then 1000 mg once daily for 2 days, beginning when heavy bleeding starts.
  - Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (400 mg) or indomethacin (25 mg) 2 times daily after meals for 5 days, beginning when heavy bleeding starts. Other NSAIDs—except aspirin—also may provide some relief of heavy or prolonged bleeding.
- Provide iron tablets if possible and tell her it is important for her to eat foods containing iron (see Possible anemia, p. 150).
- If heavy or prolonged bleeding continues or starts after several months of normal bleeding or long after the IUD was inserted, or if you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 153).

Irregular bleeding (bleeding at unexpected times that bothers the client)

- Reassure her that many women using IUDs experience irregular bleeding. It is not harmful and usually becomes less or stops after the first several months of use.

- For modest short-term relief she can try NSAIDs such as ibuprofen (400 mg) or indomethacin (25 mg) 2 times daily after meals for 5 days, beginning when irregular bleeding starts.
- If irregular bleeding continues or starts after several months of normal bleeding, or you suspect that something may be wrong for other reasons, consider underlying conditions unrelated to method use (see Unexplained vaginal bleeding, p. 153).

Cramping and pain

- She can expect some cramping and pain for the first day or two after IUD insertion.
- Explain that cramping also is common in the first 3 to 6 months of IUD use, particularly during monthly bleeding. Generally, this is not harmful and usually decreases over time.
- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever. If she also has heavy or prolonged bleeding, aspirin should not be used because it may increase bleeding.

If cramping continues and occurs outside of monthly bleeding:

- Evaluate for underlying health conditions and treat or refer.
- If no underlying condition is found and cramping is severe, discuss removing the IUD.
  - If the removed IUD looks distorted, or if difficulties during removal suggest that the IUD was out of proper position, explain to the client that she can have a new IUD that may cause less cramping.

Possible anemia

- The copper-bearing IUD may contribute to anemia if a woman already has low iron blood stores before insertion and the IUD causes heavier monthly bleeding.
- Pay special attention to IUD users with any of the following signs and symptoms:
  - Inside of eyelids or underneath fingernails looks pale, pale skin, fatigue or weakness, dizziness, irritability, headache, ringing in the ears, sore tongue, and brittle nails.
  - If blood testing is available, hemoglobin less than 9 g/dl or hematocrit less than 30.
- Provide iron tablets if possible.
- Tell her it is important to eat foods containing iron, such as meat and poultry (especially beef and chicken liver), fish, green leafy vegetables, and legumes (beans, bean curd, lentils, and peas).

Partner can feel IUD strings during sex

- Explain that this happens sometimes when strings are cut too short.
- If partner finds the strings bothersome, describe available options:
  - Strings can be cut even shorter so they are not coming out of the cervical canal. Her partner will not feel the strings, but the woman will no longer be able to check her IUD strings.
  - If the woman wants to be able to check her IUD strings, the IUD can be removed and a new one inserted. (To avoid discomfort, the strings should be cut so that 3 centimeters hang out of the cervix.)

Severe pain in lower abdomen (suspected pelvic inflammatory disease [PID])

- Some common signs and symptoms of PID often also occur with other abdominal conditions, such as ectopic pregnancy. If ectopic pregnancy is ruled out, assess for PID.
- If possible, do abdominal and pelvic examinations (see Signs and Symptoms of Serious Health Conditions, p. 320, for signs from the pelvic examination that would indicate PID).
- If a pelvic examination is not possible, and she has a combination of the following signs and symptoms in addition to lower abdominal pain, suspect PID:
  - Unusual vaginal discharge
  - Fever or chills
  - Pain during sex or urination
  - Bleeding after sex or between monthly bleeding
  - Nausea and vomiting
  - A tender pelvic mass
  - Pain when the abdomen is gently pressed (direct abdominal tenderness) or when gently pressed and then suddenly released (rebound abdominal tenderness)
- Treat PID or immediately refer for treatment:
  - Because of the serious consequences of PID, health care providers should treat all suspected cases, based on the signs and symptoms above. Treatment should be started as soon as possible. Treatment is more effective at preventing long-term complications when appropriate antibiotics are given immediately.
  - Treat for gonorrhea, chlamydia, and anaerobic bacterial infections. Counsel the client about condom use and, if possible, give her condoms.
  - There is no need to remove the IUD if she wants to continue using it. If she wants it removed, take it out after starting antibiotic treatment. (If the IUD is removed, see Switching from an IUD to Another Method, p. 148.)

Severe pain in lower abdomen (suspected ectopic pregnancy)

- Many conditions can cause severe abdominal pain. Be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare and not caused by the IUD, but it can be life-threatening (see Question 11, p. 156).
- In the early stages of ectopic pregnancy, symptoms may be absent or mild, but eventually they will become severe. A combination of these signs or symptoms should increase suspicion of ectopic pregnancy:
  - Unusual abdominal pain or tenderness
  - Abnormal vaginal bleeding or no monthly bleeding—especially if this is a change from her usual bleeding pattern
  - Light-headedness or dizziness
  - Fainting
- If ectopic pregnancy or other serious health condition is suspected, refer at once for immediate diagnosis and care. (See Female Sterilization, Managing Ectopic Pregnancy, p. 179, for more on ectopic pregnancies.)
- If the client does not have these additional symptoms or signs, assess for pelvic inflammatory disease (see Severe pain in lower abdomen, p. 151).

Suspected uterine puncturing (perforation)

- If puncturing is suspected at the time of insertion or sounding of the uterus, stop the procedure immediately (and remove the IUD if inserted). Observe the client in the clinic carefully:
  - For the first hour, keep the woman at bed rest and check her vital signs (blood pressure, pulse, respiration, and temperature) every 5 to 10 minutes.
  - If the woman remains stable after one hour, check for signs of intra-abdominal bleeding, such as low hematocrit or hemoglobin, if possible, and her vital signs. Observe for several more hours. If she has no signs or symptoms, she can be sent home, but she should avoid sex for 2 weeks. Help her choose another method.
  - If she has a rapid pulse and falling blood pressure, or new pain or increasing pain around the uterus, refer her to a higher level of care.
  - If uterine perforation is suspected within 6 weeks after insertion or if it is suspected later and is causing symptoms, refer the client for evaluation to a clinician experienced at removing such IUDs (see Question 6, p. 155).

IUD partially comes out (partial expulsion)

- If the IUD partially comes out, remove the IUD. Discuss with the client whether she wants another IUD or a different method. If she wants another IUD, she can have one inserted at any time it is reasonably certain she is not pregnant. If the client does not want to continue using an IUD, help her choose another method.

IUD completely comes out (complete expulsion)

- If the client reports that the IUD came out, discuss with her whether she wants another IUD or a different method. If she wants another IUD, she can have one inserted at any time it is reasonably certain she is not pregnant.
- If complete expulsion is suspected and the client does not know whether the IUD came out, refer for x-ray or ultrasound to assess whether the IUD might have moved to the abdominal cavity. Give her a backup method to use in the meantime.

Missing strings (suggesting possible pregnancy, uterine perforation, or expulsion)

- Ask the client:
  - Whether and when she saw the IUD come out
  - When she last felt the strings
  - When she had her last monthly bleeding
  - If she has any symptoms of pregnancy
  - If she has used a backup method since she noticed the strings were missing
- Always start with minor and safe procedures and be gentle. Check for the strings in the folds of the cervical canal with forceps. About half of missing IUD strings can be found in the cervical canal.
- If strings cannot be located in the cervical canal, either they have gone up into the uterus or the IUD has been expelled unnoticed. Rule out pregnancy before attempting more invasive procedures. Refer for evaluation. Give her a backup method to use in the meantime, in case the IUD came out.

New Problems That May Require Switching Methods

May or may not be due to the method.

Unexplained vaginal bleeding (that suggests a medical condition not related to the method)

- Refer or evaluate by history or pelvic examination. Diagnose and treat as appropriate.
- She can continue using the IUD while her condition is being evaluated.
- If bleeding is caused by sexually transmitted infection or pelvic inflammatory disease, she can continue using the IUD during treatment.

Suspected pregnancy

- Assess for pregnancy, including ectopic pregnancy.
- Explain that an IUD in the uterus during pregnancy increases the risk of preterm delivery or miscarriage, including infected (septic) miscarriage during the first or second trimester, which can be life-threatening.

- If the woman does not want to continue the pregnancy, counsel her according to program guidelines.
- If she continues the pregnancy:
  – Advise her that it is best to remove the IUD.
  – Explain the risks of pregnancy with an IUD in place. Early removal of the IUD reduces these risks, although the removal procedure itself involves a small risk of miscarriage.
  – If she agrees to removal, gently remove the IUD or refer for removal.
  – Explain that she should return at once if she develops any signs of miscarriage or septic miscarriage (vaginal bleeding, cramping, pain, abnormal vaginal discharge, or fever).
  – If she chooses to keep the IUD, her pregnancy should be followed closely by a nurse or doctor. She should see a nurse or doctor at once if she develops any signs of septic miscarriage.
- If the IUD strings cannot be found in the cervical canal and the IUD cannot be safely retrieved, refer for ultrasound, if possible, to determine whether the IUD is still in the uterus. If it is, or if ultrasound is not available, her pregnancy should be followed closely. She should seek care at once if she develops any signs of septic miscarriage.

Questions and Answers About the Intrauterine Device

1. Does the IUD cause pelvic inflammatory disease (PID)?

By itself, the IUD does not cause PID. Gonorrhea and chlamydia are the primary direct causes of PID. IUD *insertion* when a woman has gonorrhea or chlamydia may lead to PID, however. This does not happen often. When it does, it is most likely to occur in the first 20 days after IUD insertion. It has been estimated that, in a group of clients where STIs are common and screening questions identify half the STI cases, there might be 1 case of PID in every 666 IUD insertions (or less than 2 per 1,000) (see Assessing Women for Risk of Sexually Transmitted Infections, p. 138).

2. Can young women and older women use IUDs?

Yes. There is no minimum or maximum age limit. An IUD should be removed after menopause has occurred—within 12 months after her last monthly bleeding (see Women Near Menopause, p. 272).

3. If a current IUD user has a sexually transmitted infection (STI) or has become at very high individual risk of becoming infected with an STI, should her IUD be removed?

No. If a woman develops a new STI after her IUD has been inserted, she is not especially at risk of developing PID because of the IUD. She can continue to use the IUD while she is being treated for the STI. Removing the IUD has no benefit and may leave her at risk of unwanted pregnancy. Counsel her on condom use and other strategies to avoid STIs in the future.

4. Does the IUD make a woman infertile?

No. A woman can become pregnant once the IUD is removed just as quickly as a woman who has never used an IUD, although fertility decreases as women get older. Good studies find no increased risk of infertility among women who have used IUDs, including young women and women with no children. Whether or not a woman has an IUD, however, if she develops PID and it is not treated, there is some chance that she will become infertile.

5. Can a woman who has never had a baby use an IUD?

Yes. A woman who has not had children generally can use an IUD, but she should understand that the IUD is more likely to come out because her uterus may be smaller than the uterus of a woman who has given birth.

6. Can the IUD travel from the woman's uterus to other parts of her body, such as her heart or her brain?

The IUD never travels to the heart, brain, or any other part of the body outside the abdomen. The IUD normally stays within the uterus like a seed within a shell. Rarely, the IUD may come through the wall of the uterus into the abdominal cavity. This is most often due to a mistake during insertion. If it is discovered within 6 weeks or so after insertion or if it is causing symptoms at any time, the IUD will need to be removed by laparoscopic or laparotomic surgery. Usually, however, the out-of-place IUD causes no problems and should be left where it is. The woman will need another contraceptive method.

7. Should a woman have a "rest period" after using her IUD for several years or after the IUD reaches its recommended time for removal?

No. This is not necessary, and it could be harmful. Removing the old IUD and immediately inserting a new IUD poses less risk of infection than 2 separate procedures. Also, a woman could become pregnant during a "rest period" before her new IUD is inserted.

8. Should antibiotics be routinely given before IUD insertion?

No, usually not. Most recent research done where STIs are not common suggests that PID risk is low with or without antibiotics. When appropriate questions to screen for STI risk are used and IUD insertion is done with proper infection-prevention procedures (including the no-touch insertion technique), there is little risk of infection. Antibiotics may be considered, however, in areas where STIs are common and STI screening is limited.

9. Must an IUD be inserted only during a woman's monthly bleeding?

No. For a woman having menstrual cycles, an IUD can be inserted at any time during her menstrual cycle if it is reasonably certain that the woman is not pregnant. Inserting the IUD during her monthly bleeding may be a good time because she is not likely to be pregnant, and insertion may be easier. It is not as easy to see signs of infection during monthly bleeding, however.

10. Should a woman be denied an IUD because she does not want to check her IUD strings?

No. A woman should not be denied an IUD because she is unwilling to check the strings. The importance of checking the IUD strings has been overemphasized. It is uncommon for an IUD to come out, and it is rare for it to come out without the woman noticing.

The IUD is most likely to come out during the first few months after IUD insertion, during monthly bleeding, among women who have had an IUD inserted soon after childbirth, a second-trimester abortion, or miscarriage, and among women who have never been pregnant. A woman can check her IUD strings if she wants reassurance that it is still in place. Or, if she does not want to check her strings, she can watch carefully in the first month or so and during monthly bleeding to see if the IUD has come out.

11. Do IUDs increase the risk of ectopic pregnancy?

No. On the contrary, IUDs greatly reduce the risk of ectopic pregnancy. Ectopic pregnancies are rare among IUD users. The rate of ectopic pregnancy among women with IUDs is 12 per 10,000 women per year. The rate of ectopic pregnancy among women in the United States using no contraceptive method is 65 per 10,000 women per year.

On the rare occasions that the IUD fails and pregnancy occurs, 6 to 8 of every 100 of these pregnancies are ectopic. Thus, the great majority of pregnancies after IUD failure are not ectopic. Still, ectopic pregnancy can be life-threatening, so a provider should be aware that ectopic pregnancy is possible if the IUD fails.

Levonorgestrel Intrauterine Device

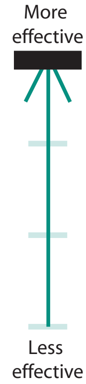
Key Points for Providers and Clients

- **Long-term pregnancy protection.** Very effective for 5 years, immediately reversible.
- **Inserted into the uterus by a specifically trained provider.**
- **Little required of the client once the LNG-IUD is in place.**
- **Bleeding changes are common but not harmful.** Typically, lighter and fewer days of bleeding, or infrequent or irregular bleeding.

What Is the Levonorgestrel Intrauterine Device?

- The levonorgestrel intrauterine device (LNG-IUD) is a T-shaped plastic device that steadily releases small amounts of levonorgestrel each day. (Levonorgestrel is a progestin widely used in implants and oral contraceptive pills.)
- A specifically trained health care provider inserts it into a woman's uterus through her vagina and cervix.
- Also called the levonorgestrel-releasing intrauterine system, LNG-IUS, or hormonal IUD.
- Marketed under the brand name Mirena.
- Works primarily by suppressing the growth of the lining of uterus (endometrium).

How Effective?



One of the most effective and long-lasting methods:

- Less than 1 pregnancy per 100 women using an LNG-IUD over the first year (2 per 1,000 women). This means that 998 of every 1,000 women using LNG-IUDs will not become pregnant.
- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using the LNG-IUD.
  – Over 5 years of LNG-IUD use: Less than 1 pregnancy per 100 women (5 to 8 per 1,000 women).
- Approved for up to 5 years of use.

Return of fertility after LNG-IUD is removed: No delay

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, Health Risks, and Complications

Side Effects

Some users report the following:

- Changes in bleeding patterns, including:
  – Lighter bleeding and fewer days of bleeding
  – Infrequent bleeding
  – Irregular bleeding
  – No monthly bleeding
  – Prolonged bleeding
- Acne
- Headaches
- Breast tenderness or pain
- Nausea
- Weight gain
- Dizziness
- Mood changes

Other possible physical changes:

- Ovarian cysts

Known Health Benefits

Helps protect against:

- Risks of pregnancy
- Iron-deficiency anemia

May help protect against:

- Pelvic inflammatory disease

Reduces:

- Menstrual cramps
- Symptoms of endometriosis (pelvic pain, irregular bleeding)

Known Health Risks

None

Complications

Rare:

- Puncturing (perforation) of the wall of the uterus by the LNG-IUD or an instrument used for insertion. Usually heals without treatment.

Very rare:

- Miscarriage, preterm birth, or infection in the very rare case that the woman becomes pregnant with the LNG-IUD in place.

Who Can and Cannot Use Levonorgestrel IUDs

Safe and Suitable for Nearly All Women

Nearly all women can use the LNG-IUD safely and effectively.

Medical Eligibility Criteria for

Levonorgestrel IUDs

Ask the client the Medical Eligibility Criteria questions for Copper-Bearing IUDs (see p. 135). Also ask the questions below about known medical conditions. If she answers "no" to all of the questions here and for the copper-bearing IUD, then she can have an LNG-IUD inserted if she wants. If she answers "yes" to a question, follow the instructions. In some cases she can still have an LNG-IUD inserted.

1. Did you give birth less than 4 weeks ago?

❑ NO ❑ **YES** She can have the LNG-IUD inserted as soon as 4 weeks after childbirth (see When to Start, next page).

2. Do you now have a blood clot in the deep veins of your legs or lungs?

❑ NO ❑ **YES** If she reports current blood clot (except superficial clots), and she is not on anticoagulant therapy, help her choose a method without hormones.

3. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])

❑ NO ❑ **YES** If she reports serious active liver disease (jaundice, severe cirrhosis, liver tumor), do not provide the LNG-IUD. Help her choose a method without hormones.

4. Do you have or have you ever had breast cancer?

❑ NO ❑ **YES** Do not insert the LNG-IUD. Help her choose a method without hormones.

For complete classifications, see Medical Eligibility Criteria for Contraceptive Use, p. 324. Be sure to explain the health benefits and risks and the side effects of the method that the client will use. Also, point out any conditions that would make the method inadvisable, when relevant to the client.

Using Clinical Judgment in Special Cases

Usually, a woman with any of the conditions listed below should not use an LNG-IUD. In special circumstances, however, when other, more appropriate methods are not available or acceptable to her, a qualified provider who can carefully assess a specific woman's condition and situation may decide that she can use an LNG-IUD. The provider needs to consider the severity of her condition and, for most conditions, whether she will have access to follow-up.

- Breastfeeding and less than 4 weeks since giving birth (considering the risks of another pregnancy and that a woman may have limited further access to the LNG-IUD)
- Acute blood clot in deep veins of legs or lungs
- Had breast cancer more than 5 years ago, and it has not returned
- Severe liver disease, infection, or tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies

See also Copper-Bearing IUD, Using Clinical Judgment in Special Cases, p. 136.

Providing the Levonorgestrel Intrauterine Device

When to Start

IMPORTANT: In many cases a woman can start the LNG-IUD any time it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to start
Having menstrual cycles or switching from a nonhormonal method	**Any time of the month** • If she is starting within 7 days after the start of her monthly bleeding, no need for a backup method. • If it is more than 7 days after the start of her monthly bleeding, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after insertion.

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.*

Woman's situation	When to start
Switching from a hormonal method	• Immediately, if she has been using the method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method. • If she is switching from injectables, she can have the LNG-IUD inserted when the repeat injection would have been given. She will need a backup method for the first 7 days after insertion.
Soon after childbirth	• If not breastfeeding, any time within 48 hours after giving birth. (Requires a provider with specific training in postpartum insertion.) After 48 hours, delay until at least 4 weeks. • If breastfeeding, delay LNG-IUD insertion until 4 weeks after giving birth. (See p. 129, Q&A 8.)
Fully or nearly fully breastfeeding	
Less than 6 months after giving birth	• If she gave birth less than 4 weeks ago, delay insertion until at least 4 weeks after giving birth. (See p. 129, Q&A 8.) • If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time between 4 weeks and 6 months. No need for a backup method. • If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161).
More than 6 months since giving birth	• If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion. • If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161).
Partially breastfeeding or not breastfeeding	
Less than 4 weeks after giving birth	• Delay LNG-IUD insertion until at least 4 weeks after giving birth. (See p. 129, Q&A 8.)

Woman's situation	When to start
Partially breastfeeding or not breastfeeding (continued)	
More than 4 weeks after giving birth	• If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time *if it can be determined that she is not pregnant*. She will need a backup method for the first 7 days after insertion. • If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161).
No monthly bleeding (not related to childbirth or breastfeeding)	• Any time *if it can be determined that she is not pregnant*. She will need a backup method for the first 7 days after insertion.
After miscarriage or abortion	• Immediately, if the LNG-IUD is inserted within 7 days after first- or second-trimester abortion or miscarriage and if no infection is present. No need for a backup method. • If it is more than 7 days after first- or second-trimester miscarriage or abortion and no infection is present, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion. • If infection is present, treat or refer and help the client choose another method. If she still wants the LNG-IUD, it can be inserted after the infection has completely cleared. • LNG-IUD insertion after second-trimester abortion or miscarriage requires specific training. If not specifically trained, delay insertion until at least 4 weeks after miscarriage or abortion.
After taking emergency contraceptive pills (ECPs)	• The LNG-IUD can be inserted within 7 days after the start of her next monthly bleeding or any other time it is reasonably certain she is not pregnant. Give her a backup method, or oral contraceptives to start the day after she finishes taking the ECPs, to use until the LNG-IUD is inserted.

Giving Advice on Side Effects

IMPORTANT: Thorough counseling about bleeding changes must come before IUD insertion. Counseling about bleeding changes may be the most important help a woman needs to keep using the method.

Describe the most common side effects	• Changes in bleeding patterns: – No monthly bleeding, lighter bleeding, fewer days of bleeding, infrequent or irregular bleeding. • Acne, headaches, breast tenderness and pain, and possibly other side effects.
Explain about these side effects	• Bleeding changes usually are not signs of illness. • Usually become less after the first several months after insertion. • The client can come back for help if side effects bother her.

Female Sterilization

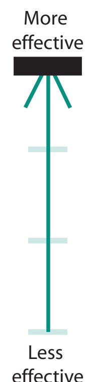
Key Points for Providers and Clients

- **Permanent.** Intended to provide life-long, permanent, and very effective protection against pregnancy. Reversal is usually not possible.
- **Involves a physical examination and surgery.** The procedure is done by a specifically trained provider.
- **No long-term side effects.**

What Is Female Sterilization?

- Permanent contraception for women who will not want more children.
- The 2 surgical approaches most often used:
  - Minilaparotomy involves making a small incision in the abdomen. The fallopian tubes are brought to the incision to be cut or blocked.
  - Laparoscopy involves inserting a long thin tube with a lens in it into the abdomen through a small incision. This laparoscope enables the doctor to see and block or cut the fallopian tubes in the abdomen.
- Also called tubal sterilization, tubal ligation, voluntary surgical contraception, tubectomy, bi-tubal ligation, tying the tubes, minilap, and "the operation."
- Works because the fallopian tubes are blocked or cut. Eggs released from the ovaries cannot move down the tubes, and so they do not meet sperm.

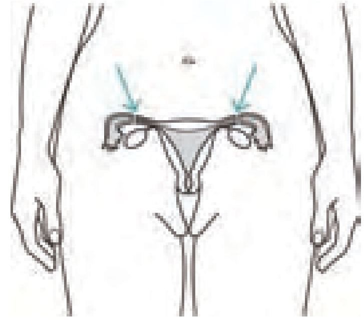
How Effective?



One of the most effective methods but carries a small risk of failure:

- Less than 1 pregnancy per 100 women over the first year after having the sterilization procedure (5 per 1,000). This means that 995 of every 1,000 women relying on female sterilization will not become pregnant.

- A small risk of pregnancy remains beyond the first year of use and until the woman reaches menopause.
  - Over 10 years of use: About 2 pregnancies per 100 women (18 to 19 per 1,000 women).
- Effectiveness varies slightly depending on how the tubes are blocked, but pregnancy rates are low with all techniques. One of the most effective techniques is cutting and tying the cut ends of the fallopian tubes after childbirth (postpartum tubal ligation).



Fertility does not return because sterilization generally cannot be stopped or reversed. The procedure is intended to be permanent. Reversal surgery is difficult, expensive, and not available in most areas. When performed, reversal surgery often does not lead to pregnancy (see Question 7, p. 181).

Protection against sexually transmitted infections (STIs): None

Side Effects, Health Benefits, Health Risks, and Complications

Side Effects

None

Known Health Benefits

Helps protect against:

- Risks of pregnancy
- Pelvic inflammatory disease (PID)

May help protect against:

- Ovarian cancer

Known Health Risks

Uncommon to extremely rare:

- Complications of surgery and anesthesia (see below)

Complications of Surgery (see also Managing Any Problems, p. 178)

Uncommon to extremely rare:

- Female sterilization is a safe method of contraception. It requires surgery and anesthesia, however, which carry some risks such as infection or abscess of the wound. Serious complications are uncommon. Death, due to the procedure or anesthesia, is extremely rare.

The risk of complications with local anesthesia is significantly lower than with general anesthesia. Complications can be kept to a minimum if appropriate techniques are used and if the procedure is performed in an appropriate setting.

Correcting Misunderstandings (see also Questions and Answers, p. 180)

Female sterilization:

- Does not make women weak.
- Does not cause lasting pain in back, uterus, or abdomen.
- Does not remove a woman's uterus or lead to a need to have it removed.
- Does not cause hormonal imbalances.
- Does not cause heavier bleeding or irregular bleeding or otherwise change women's menstrual cycles.
- Does not cause any changes in weight, appetite, or appearance.
- Does not change women's sexual behavior or sex drive.
- Substantially reduces the risk of ectopic pregnancy.

Who Can Have Female Sterilization

Safe for All Women

With proper counseling and informed consent, any woman can have female sterilization safely, including women who:

- Have no children or few children
- Are not married
- Do not have husband's permission
- Are young
- Just gave birth (within the last 7 days)
- Are breastfeeding
- Are infected with HIV, whether or not on antiretroviral therapy (see Female Sterilization for Women With HIV, p. 171)

In some of these situations, especially careful counseling is important to make sure the woman will not regret her decision (see Because Sterilization Is Permanent, p. 174).

Women can have female sterilization:

- Without any blood tests or routine laboratory tests
- Without cervical cancer screening
- Even when a woman is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, p. 372)

Why Some Women Say They Like Female Sterilization

- Has no side effects
- No need to worry about contraception again
- Is easy to use, nothing to do or remember

Medical Eligibility Criteria for

Female Sterilization

All women can have female sterilization. No medical conditions prevent a woman from using female sterilization. This checklist asks the client about known medical conditions that may limit when, where, or how the female sterilization procedure should be performed. Ask the client the questions below. If she answers "no" to all of the questions, then the female sterilization procedure can be performed in a routine setting without delay. If she answers "yes" to a question, follow the instructions, which recommend caution, delay, or special arrangements.

In the checklist below:

- *Caution* means the procedure can be performed in a routine setting but with extra preparation and precautions, depending on the condition.
- *Delay* means postpone female sterilization. These conditions must be treated and resolved before female sterilization can be performed. Give the client another method to use until the procedure can be performed.

- *Special* means special arrangements should be made to perform the procedure in a setting with an experienced surgeon and staff, equipment to provide general anesthesia, and other backup medical support. For these conditions, the capacity to decide on the most appropriate procedure and anesthesia regimen also is needed. Give the client another method to use until the procedure can be performed.

1. Do you have any current or past female conditions or problems (gynecologic or obstetric conditions or problems), such as infection or cancer? If so, what problems?

❏ NO ❏ **YES** If she has any of the following, use *caution:*

- Past pelvic inflammatory disease since last pregnancy
- Breast cancer
- Uterine fibroids
- Previous abdominal or pelvic surgery

▶ If she has any of the following, *delay* female sterilization:

- Current pregnancy
- 7–42 days postpartum
- Postpartum after a pregnancy with severe pre-eclampsia or eclampsia
- Serious postpartum or postabortion complications (such as infection, hemorrhage, or trauma) except uterine rupture or perforation (*special;* see below)
- A large collection of blood in the uterus
- Unexplained vaginal bleeding that suggests an underlying medical condition
- Pelvic inflammatory disease
- Purulent cervicitis, chlamydia, or gonorrhea
- Pelvic cancers (treatment may make her sterile in any case)
- Malignant trophoblast disease

▶ If she has any of the following, make *special* arrangements:

- AIDS (see Female Sterilization for Women With HIV, p. 171)
- Fixed uterus due to previous surgery or infection
- Endometriosis
- Hernia (abdominal wall or umbilical)
- Postpartum or postabortion uterine rupture or perforation

(Continued on next page)

2. Do you have any cardiovascular conditions, such as heart problems, stroke, high blood pressure, or complications of diabetes? If so, what?

❑ NO ❑ **YES** If she has any of the following, use *caution:*

- Controlled high blood pressure
- Mild high blood pressure (140/90 to 159/99 mm Hg)
- Past stroke or heart disease without complications

▶ If she has any of the following, *delay* female sterilization:

- Heart disease due to blocked or narrowed arteries
- Blood clots in deep veins of legs or lungs

▶ If she has any of the following, make *special* arrangements:

- Several conditions together that increase chances of heart disease or stroke, such as older age, smoking, high blood pressure, or diabetes
- Moderately high or severely high blood pressure (160/100 mm Hg or higher)
- Diabetes for more than 20 years *or* damage to arteries, vision, kidneys, or nervous system caused by diabetes
- Complicated valvular heart disease

3. Do you have any lingering, long-term diseases or any other conditions? If so, what?

❑ NO ❑ **YES** If she has any of the following, use *caution:*

- Epilepsy
- Diabetes without damage to arteries, vision, kidneys, or nervous system
- Hypothyroidism
- Mild cirrhosis of the liver, liver tumors (Are her eyes or skin unusually yellow?), or schistosomiasis with liver fibrosis
- Moderate iron-deficiency anemia (hemoglobin 7–10 g/dl)
- Sickle cell disease
- Inherited anemia (thalassemia)
- Kidney disease
- Diaphragmatic hernia
- Severe lack of nutrition (Is she extremely thin?)

- Obesity (Is she extremely overweight?)
- Elective abdominal surgery at time sterilization is desired
- Depression
- Young age
- Uncomplicated lupus

▶ If she has any of the following, *delay* female sterilization:

- Gallbladder disease with symptoms
- Active viral hepatitis
- Severe iron-deficiency anemia (hemoglobin less than 7 g/dl)
- Lung disease (bronchitis or pneumonia)
- Systemic infection or significant gastroenteritis
- Abdominal skin infection
- Undergoing abdominal surgery for emergency or infection, or major surgery with prolonged immobilization

▶ If she has any of the following, make *special* arrangements:

- Severe cirrhosis of the liver
- Hyperthyroidism
- Coagulation disorders (blood does not clot)
- Chronic lung disease (asthma, bronchitis, emphysema, lung infection)
- Pelvic tuberculosis
- Lupus with positive (or unknown) antiphospholipid antibodies, with severe thrombocytopenia, or on immunosuppressive treatment

Female Sterilization for Women With HIV

- Women who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely undergo female sterilization. Special arrangements are needed to perform female sterilization on a woman with AIDS.
- Urge these women to use condoms in addition to female sterilization. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.
- No one should be coerced or pressured into having female sterilization, and that includes women with HIV.

Providing Female Sterilization

When to Perform the Procedure

IMPORTANT: If there is no medical reason to delay, a woman can have the female sterilization procedure any time she wants if it is reasonably certain she is not pregnant. To be reasonably certain she is not pregnant, use the Pregnancy Checklist (see p. 372).

Woman's situation	When to perform
Having menstrual cycles or switching from another method	**Any time of the month** • Any time within 7 days after the start of her monthly bleeding. No need to use another method before the procedure. • If it is more than 7 days after the start of her monthly bleeding, she can have the procedure any time it is reasonably certain she is not pregnant. • If she is switching from oral contraceptives, she can continue taking pills until she has finished the pill pack to maintain her regular cycle. • If she is switching from an IUD, she can have the procedure immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).
No monthly bleeding	• Any time it is reasonably certain she is not pregnant.
After childbirth	• Immediately or within 7 days after giving birth, if she has made a voluntary, informed choice in advance. • Any time 6 weeks or more after childbirth if it is reasonably certain she is not pregnant.
After miscarriage or abortion	• Within 48 hours after uncomplicated abortion, if she has made a voluntary, informed choice in advance.
After using emergency contraceptive pills (ECPs)	• The sterilization procedure can be done within 7 days after the start of her next monthly bleeding or any other time it is reasonably certain she is not pregnant. Give her a backup method or oral contraceptives to start the day after she finishes taking the ECPs, to use until she can have the procedure.

Ensuring Informed Choice

IMPORTANT: A friendly counselor who listens to a woman's concerns, answers her questions, and gives clear, practical information about the procedure—especially its permanence—will help a woman make an informed choice and be a successful and satisfied user, without later regret (see Because Sterilization Is Permanent, p. 174). Involving her partner in counseling can be helpful but is not required.

The 6 Points of Informed Consent

Counseling must cover all 6 points of informed consent. In some programs the client and the counselor also sign an informed consent form. To give informed consent to sterilization, the client must understand the following points:

1. Temporary contraceptives also are available to the client.
2. Voluntary sterilization is a surgical procedure.
3. There are certain risks of the procedure as well as benefits. (Both risks and benefits must be explained in a way that the client can understand.)
4. If successful, the procedure will prevent the client from ever having any more children.
5. The procedure is considered permanent and probably cannot be reversed.
6. The client can decide against the procedure at any time before it takes place (without losing rights to other medical, health, or other services or benefits).

Because Sterilization Is Permanent

A woman or man considering sterilization should think carefully: "Could I want more children in the future?" Health care providers can help the client think about this question and make an informed choice. If the answer is "Yes, I could want more children," another family planning method would be a better choice.

Asking questions can help. The provider might ask:

- "Do you want to have any more children in the future?"
- "If not, do you think you could change your mind later? What might change your mind? For example, suppose one of your children died?"
- "Suppose you lost your spouse, and you married again?"
- "Does your partner want more children in the future?"

Clients who cannot answer these questions may need encouragement to think further about their decisions about sterilization.

In general, people most likely to regret sterilization:

- Are young
- Have few or no children
- Have just lost a child
- Are not married
- Are having marital problems
- Have a partner who opposes sterilization

None of these characteristics rules out sterilization, but health care providers should make especially sure that people with these characteristics make informed, thoughtful choices.

Also, for a woman, just after delivery or abortion is a convenient and safe time for voluntary sterilization, but women sterilized at this time may be more likely to regret it later. Thorough counseling during pregnancy and a decision made before labor and delivery help to avoid regrets.

The Decision About Sterilization Belongs to the Client Alone

A man or woman may consult a partner and others about the decision to have sterilization and may consider their views, but the decision cannot be made for them by a partner, another family member, a health care provider, a community leader, or anyone else. Family planning providers have a duty to make sure that the decision for or against sterilization is made by the client and is not pressured or forced by anyone.

Performing the Sterilization Procedure

Explaining the Procedure

A woman who has chosen female sterilization needs to know what will happen during the procedure. The following description can help explain the procedure to her. Learning to perform female sterilization takes training and practice under direct supervision. Therefore, this description is a summary and not detailed instructions.

(The description below is for procedures done more than 6 weeks after childbirth. The procedure used up to 7 days after childbirth is slightly different.)

The Minilaparotomy Procedure

1. The provider uses proper infection-prevention procedures at all times (see Infection Prevention in the Clinic, p. 312).
2. The provider performs a physical examination and a pelvic examination. The pelvic examination is to assess the condition and mobility of the uterus.
3. The woman usually receives light sedation (with pills or into a vein) to relax her. She stays awake. Local anesthetic is injected above the pubic hair line.
4. The provider makes a small vertical incision (2–5 centimeters) in the anesthetized area. This usually causes little pain. (For women who have just given birth, the incision is made horizontally at the lower edge of the navel.)
5. The provider inserts a special instrument (uterine elevator) into the vagina, through the cervix, and into the uterus to raise each of the 2 fallopian tubes so they are closer to the incision. This may cause discomfort.
6. Each tube is tied and cut or else closed with a clip or ring.
7. The provider closes the incision with stitches and covers it with an adhesive bandage.
8. The woman receives instructions on what to do after she leaves the clinic or hospital (see Explaining Self-Care for Female Sterilization, p. 177). She usually can leave in a few hours.

The Laparoscopy Procedure

1. The provider uses proper infection-prevention procedures at all times (see Infection Prevention in the Clinic, p. 312).
2. The provider performs a physical examination and a pelvic examination. The pelvic examination is to assess condition and mobility of the uterus.
3. The woman usually receives light sedation (with pills or into a vein) to relax her. She stays awake. Local anesthetic is injected under her navel.
4. The provider places a special needle into the woman's abdomen and, through the needle, inflates (insufflates) the abdomen with gas or air. This raises the wall of the abdomen away from the pelvic organs.

5. The provider makes a small incision (about one centimeter) in the anesthetized area and inserts a laparoscope. A laparoscope is a long, thin tube containing lenses. Through the lenses the provider can see inside the body and find the 2 fallopian tubes.
6. The provider inserts an instrument through the laparoscope (or, sometimes, through a second incision) to close off the fallopian tubes.
7. Each tube is closed with a clip or a ring, or by electric current applied to block the tube (electrocoagulation).
8. The provider then removes the instrument and laparoscope. The gas or air is let out of the woman's abdomen. The provider closes the incision with stitches and covers it with an adhesive bandage.
9. The woman receives instructions on what to do after she leaves the clinic or hospital (see Explaining Self-Care for Female Sterilization, next page). She usually can leave in a few hours.

Local Anesthesia Is Best for Female Sterilization

Local anesthesia, used with or without mild sedation, is preferable to general anesthesia. Local anesthesia:

- Is safer than general, spinal, or epidural anesthesia
- Lets the woman leave the clinic or hospital sooner
- Allows faster recovery
- Makes it possible to perform female sterilization in more facilities

Sterilization under local anesthesia can be done when a member of the surgical team has been trained to provide sedation and the surgeon has been trained to provide local anesthesia. The surgical team should be trained to manage emergencies, and the facility should have the basic equipment and drugs to manage any emergencies.

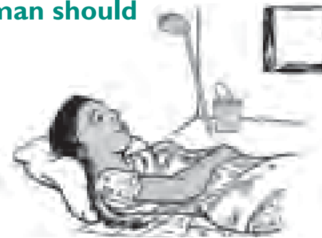
Health care providers can explain to a woman ahead of time that being awake during the procedure is safer for her. During the procedure providers can talk with the woman and help to reassure her if needed.

Many different anesthetics and sedatives may be used. Dosage of anesthetic must be adjusted to body weight. Oversedation should be avoided because it can reduce the client's ability to stay conscious and could slow or stop her breathing.

In some cases, general anesthesia may be needed. See Medical Eligibility Criteria for Female Sterilization, p. 168, for medical conditions needing special arrangements, which may include general anesthesia.

Supporting the User

Explaining Self-Care for Female Sterilization

Before the procedure the woman should	• Use another contraceptive until the procedure. • Not eat anything for 8 hours before surgery. She can drink clear liquids until 2 hours before surgery. • Not take any medication for 24 hours before the surgery (unless she is told to do so). • Wear clean, loose-fitting clothing to the health facility if possible. • Not wear nail polish or jewelry. • If possible, bring a friend or relative to help her go home afterwards.
After the procedure the woman should 	• Rest for 2 days and avoid vigorous work and heavy lifting for a week. • Keep incision clean and dry for 1 to 2 days. • Avoid rubbing the incision for 1 week. • Not have sex for at least 1 week. If pain lasts more than 1 week, avoid sex until all pain is gone.
What to do about the most common problems	• She may have some abdominal pain and swelling after the procedure. It usually goes away within a few days. Suggest ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever. She should not take aspirin, which slows blood clotting. Stronger pain reliever is rarely needed. If she had laparascopy, she may have shoulder pain or feel bloated for a few days.
Plan the follow-up visit	• Following up within 7 days or at least within 2 weeks is strongly recommended. No woman should be denied sterilization, however, because follow-up would be difficult or not possible. • A health care provider checks the site of the incision, looks for any signs of infection, and removes any stitches. This can be done in the clinic, in the client's home (by a specifically trained paramedical worker, for example), or at any other health center.

"Come Back Any Time": Reasons to Return

Assure every client that she is welcome to come back any time—for example, if she has problems or questions, or she thinks she might be pregnant. (A few sterilizations fail and the woman becomes pregnant.) Also if:

- She has bleeding, pain, pus, heat, swelling, or redness of the wound that becomes worse or does not go away
- She develops high fever (greater than 38° C/101° F)
- She experiences fainting, persistent light-headedness, or extreme dizziness in the first 4 weeks and especially in the first week

General health advice: Anyone who suddenly feels that something is seriously wrong with her health should immediately seek medical care from a nurse or doctor. Her contraceptive method is most likely not the cause of the condition, but she should tell the nurse or doctor what method she is using.

Helping Users

Managing Any Problems

Problems Reported as Complications

- Problems affect women's satisfaction with female sterilization. They deserve the provider's attention. If the client reports complications of female sterilization, listen to her concerns and, if appropriate, treat.

Infection at the incision site (redness, heat, pain, pus)

- Clean the infected area with soap and water or antiseptic.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if the infection has not cleared.

Abscess (a pocket of pus under the skin caused by infection)

- Clean the area with antiseptic.
- Cut open (incise) and drain the abscess.
- Treat the wound.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if she has heat, redness, pain, or drainage of the wound.

Severe pain in lower abdomen (suspected ectopic pregnancy)

- See Managing Ectopic Pregnancy, below.

Suspected pregnancy

- Assess for pregnancy, including ectopic pregnancy.

Managing Ectopic Pregnancy

- Ectopic pregnancy is any pregnancy that occurs outside the uterine cavity. Early diagnosis is important. Ectopic pregnancy is rare but could be life-threatening (see Question 11, p. 182).
- In the early stages of ectopic pregnancy, symptoms may be absent or mild, but eventually they will become severe. A combination of these signs or symptoms should increase suspicion of ectopic pregnancy:
  - Unusual abdominal pain or tenderness
  - Abnormal vaginal bleeding or no monthly bleeding—especially if this is a change from her usual bleeding pattern
  - Light-headedness or dizziness
  - Fainting
- *Ruptured ectopic pregnancy*: Sudden sharp or stabbing lower abdominal pain, sometimes on one side and sometimes throughout the body, suggests a ruptured ectopic pregnancy (when the fallopian tube breaks due to the pregnancy). Right shoulder pain may develop due to blood from a ruptured ectopic pregnancy pressing on the diaphragm. Usually, within a few hours the abdomen becomes rigid and the woman goes into shock.
- *Care*: Ectopic pregnancy is a life-threatening, emergency condition requiring immediate surgery. If ectopic pregnancy is suspected, perform a pelvic examination only if facilities for immediate surgery are available. Otherwise, immediately refer and/or transport the woman to a facility where definitive diagnosis and surgical care can be provided.

Questions and Answers About Female Sterilization

1. Will sterilization change a woman's monthly bleeding or make monthly bleeding stop?

No. Most research finds no major changes in bleeding patterns after female sterilization. If a woman was using a hormonal method or IUD before sterilization, her bleeding pattern will return to the way it was before she used these methods. For example, women switching from combined oral contraceptives to female sterilization may notice heavier bleeding as their monthly bleeding returns to usual patterns. Note, however, that a woman's monthly bleeding usually becomes less regular as she approaches menopause.

2. Will sterilization make a woman lose her sexual desire? Will it make her fat?

No. After sterilization a woman will look and feel the same as before. She can have sex the same as before. She may find that she enjoys sex more because she does not have to worry about getting pregnant. She will not gain weight because of the sterilization procedure.

3. Should sterilization be offered only to women who have had a certain number of children, who have reached a certain age, or who are married?

No. There is no justification for denying sterilization to a woman just because of her age, the number of her living children, or her marital status. Health care providers must not impose rigid rules about age, number of children, age of last child, or marital status. Each woman must be allowed to decide for herself whether or not she will want more children and whether or not to have sterilization.

4. Is it not easier for the woman and the health care provider to use general anesthesia? Why use local anesthesia?

Local anesthesia is safer. General anesthesia is more risky than the sterilization procedure itself. Correct use of local anesthesia removes the single greatest source of risk in female sterilization procedures—general anesthesia. Also, after general anesthesia, women usually feel nauseous. This does not happen as often after local anesthesia.

When using local anesthesia with sedation, however, providers must take care not to overdose the woman with the sedative. They also must handle the woman gently and talk with her throughout the procedure. This helps her to stay calm. With many clients, sedatives can be avoided, especially with good counseling and a skilled provider.

5. Does a woman who has had a sterilization procedure ever have to worry about getting pregnant again?

Generally, no. Female sterilization is very effective at preventing pregnancy and is intended to be permanent. It is not 100% effective, however. Women who have been sterilized have a slight risk of becoming pregnant: About 5 of every 1,000 women become pregnant within a year after the procedure. The small risk of pregnancy remains beyond the first year and until the woman reaches menopause.

6. Pregnancy after female sterilization is rare, but why does it happen at all?

Most often it is because the woman was already pregnant at the time of sterilization. In some cases an opening in the fallopian tube develops. Pregnancy also can occur if the provider makes a cut in the wrong place instead of the fallopian tubes.

7. Can sterilization be reversed if the woman decides she wants another child?

Generally, no. Sterilization is intended to be permanent. People who may want more children should choose a different family planning method. Surgery to reverse sterilization is possible for only some women—those who have enough fallopian tube left. Even among these women, reversal often does not lead to pregnancy. The procedure is difficult and expensive, and providers who are able to perform such surgery are hard to find. When pregnancy does occur after reversal, the risk that the pregnancy will be ectopic is greater than usual. Thus, sterilization should be considered irreversible.

8. Is it better for the woman to have female sterilization or the man to have a vasectomy?

Each couple must decide for themselves which method is best for them. Both are very effective, safe, permanent methods for couples who know that they will not want more children. Ideally, a couple should consider both methods. If both are acceptable to the couple, vasectomy would be preferable because it is simpler, safer, easier, and less expensive than female sterilization.

9. Will the female sterilization procedure hurt?

Yes, a little. Women receive local anesthetic to stop pain, and, except in special cases, they remain awake. A woman can feel the health care provider moving her uterus and fallopian tubes. This can be uncomfortable. If a trained anesthetist or anesthesiologist and suitable equipment are available, general anesthesia may be chosen for women who are very frightened of pain. A woman may feel sore and weak for several days or even a few weeks after surgery, but she will soon regain her strength.

10. How can health care providers help a woman decide about female sterilization?

Provide clear, balanced information about female sterilization and other family planning methods, and help a woman think through her decision fully. Thoroughly discuss her feelings about having children and ending her fertility. For example, a provider can help a woman think how she would feel about possible life changes such as a change of partner or a child's death. Review The 6 Points of Informed Consent to be sure the woman understands the sterilization procedure (see p. 173).

11. Does female sterilization increase the risk of ectopic pregnancy?

No. On the contrary, female sterilization greatly reduces the risk of ectopic pregnancy. Ectopic pregnancies are very rare among women who have had a sterilization procedure. The rate of ectopic pregnancy among women after female sterilization is 6 per 10,000 women per year. The rate of ectopic pregnancy among women in the United States using no contraceptive method is 65 per 10,000 women per year.

On the rare occasions that sterilization fails and pregnancy occurs, 33 of every 100 (1 of every 3) of these pregnancies are ectopic. Thus, most pregnancies after sterilization failure are not ectopic. Still, ectopic pregnancy can be life-threatening, so a provider should be aware that ectopic pregnancy is possible if sterilization fails.

12. Where can female sterilization be performed?

If no pre-existing medical conditions require special arrangements:

- Minilaparotomy can be provided in maternity centers and basic health facilities where surgery can be done. These include both permanent and temporary facilities that can refer the woman to a higher level of care in case of emergency.
- Laparoscopy requires a better equipped center, where the procedure is performed regularly and an anesthetist is available.

13. What are transcervical methods of sterilization?

Transcervical methods involve new ways of reaching the fallopian tubes, through the vagina and uterus. A microcoil, Essure, is already available in some countries. Essure is a spring-like device that a specifically trained clinician using a viewing instrument (hysteroscope) inserts through the vagina into the uterus and then into each fallopian tube. Over the 3 months following the procedure, scar tissue grows into the device. The scar tissue permanently plugs the fallopian tubes so that sperm cannot pass through to fertilize an egg. Essure is unlikely to be introduced in low-resource settings soon, however, because of the high cost and complexity of the viewing instrument required for insertion.

CHAPTER 12

Vasectomy

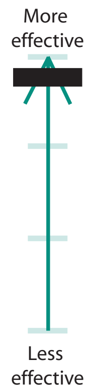
Key Points for Providers and Clients

- **Permanent.** Intended to provide life-long, permanent, and very effective protection against pregnancy. Reversal is usually not possible.
- **Involves a safe, simple surgical procedure.**
- **3-month delay in taking effect.** The man or couple must use condoms or another contraceptive method for 3 months after the vasectomy.
- **Does not affect male sexual performance.**

What Is Vasectomy?

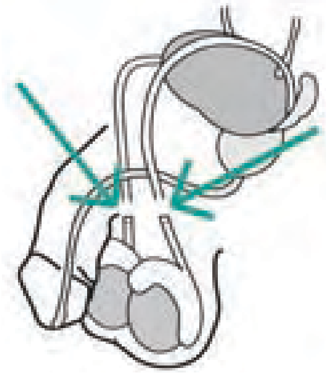
- Permanent contraception for men who will not want more children.
- Through a puncture or small incision in the scrotum, the provider locates each of the 2 tubes that carries sperm to the penis (vas deferens) and cuts or blocks it by cutting and tying it closed or by applying heat or electricity (cautery).
- Also called male sterilization and male surgical contraception.
- Works by closing off each vas deferens, keeping sperm out of semen. Semen is ejaculated, but it cannot cause pregnancy.

How Effective?



One of the most effective methods but carries a small risk of failure:

- Where men cannot have their semen examined 3 months after the procedure to see if it still contains sperm, pregnancy rates are about 2 to 3 per 100 women over the first year after their partners have had a vasectomy. This means that 97 to 98 of every 100 women whose partners have had vasectomies will not become pregnant.
- Where men can have their semen examined after vasectomy, less than 1 pregnancy per 100 women over the first year after their partners have had vasectomies (2 per 1,000). This means that 998 of every 1,000 women whose partners have had vasectomies will not become pregnant.



- Vasectomy is not fully effective for 3 months after the procedure.
  - Some pregnancies occur within the first year because the couple does not use condoms or another effective method consistently and correctly in the first 3 months, before the vasectomy is fully effective.
- A small risk of pregnancy remains beyond the first year after the vasectomy and until the man's partner reaches menopause.
  - Over 3 years of use: About 4 pregnancies per 100 women
- If the partner of a man who has had a vasectomy becomes pregnant, it may be because:
  - The couple did not always use another method during the first 3 months after the procedure
  - The provider made a mistake
  - The cut ends of the vas deferens grew back together

Fertility does not return because vasectomy generally cannot be stopped or reversed. The procedure is intended to be permanent. Reversal surgery is difficult, expensive, and not available in most areas. When performed, reversal surgery often does not lead to pregnancy (see Question 7, p. 196).

Protection against sexually transmitted infections (STIs): None

Why Some Men Say They Like Vasectomy

- Is safe, permanent, and convenient
- Has fewer side effects and complications than many methods for women
- The man takes responsibility for contraception—takes burden off the woman
- Increases enjoyment and frequency of sex

Side Effects, Health Benefits, Health Risks, and Complications

Side Effects, Known Health Benefits and Health Risks

None

Complications (see also Managing Any Problems, p. 194)

Uncommon to rare:

- Severe scrotal or testicular pain that lasts for months or years (see Question 2, p. 195).

Uncommon to very rare:

- Infection at the incision site or inside the incision (uncommon with conventional incision technique; very rare with no-scalpel technique; see Vasectomy Techniques, p. 190).

Rare:

- Bleeding under the skin that may cause swelling or bruising (hematoma).

Correcting Misunderstandings (see also Questions and Answers, p. 195)

Vasectomy:

- Does not remove the testicles. In vasectomy the tubes carrying sperm from the testicles are blocked. The testicles remain in place.
- Does not decrease sex drive.
- Does not affect sexual function. A man's erection is as hard, it lasts as long, and he ejaculates the same as before.
- Does not cause a man to grow fat or become weak, less masculine, or less productive.
- Does not cause any diseases later in life.
- Does not prevent transmission of sexually transmitted infections, including HIV.

Who Can Have a Vasectomy

Safe for All Men

With proper counseling and informed consent, any man can have a vasectomy safely, including men who:

- Have no children or few children
- Are not married
- Do not have wife's permission
- Are young
- Have sickle cell disease
- Are at high risk of infection with HIV or another STI
- Are infected with HIV, whether or not on antiretroviral therapy (see Vasectomy for Men with HIV, p. 188).

In some of these situations, especially careful counseling is important to make sure the man will not regret his decision (see Female Sterilization, Because Sterilization Is Permanent, p. 174).

Men can have a vasectomy:

- Without any blood tests or routine laboratory tests
- Without a blood pressure check
- Without a hemoglobin test
- Without a cholesterol or liver function check
- Even if the semen cannot be examined by microscope later to see if still contains sperm.

Medical Eligibility Criteria for

Vasectomy

All men can have vasectomy. No medical conditions prevent a man from using vasectomy. This checklist asks the client about known medical conditions that may limit when, where, or how the vasectomy procedure should be performed. Ask the client the questions below. If he answers "no" to all of the questions, then the vasectomy procedure can be performed in a routine setting without delay. If he answers "yes" to a question below, follow the instructions, which recommend caution, delay, or special arrangements.

In the checklist below:

- *Caution* means the procedure can be performed in a routine setting but with extra preparation and precautions, depending on the condition.
- *Delay* means postpone vasectomy. These conditions must be treated and resolved before vasectomy can be performed. Give the client another method to use until the procedure can be performed.
- *Special* means special arrangements should be made to perform the procedure in a setting with an experienced surgeon and staff, equipment to provide general anesthesia, and other backup medical support. For these conditions, the capacity to decide on the most appropriate procedure and anesthesia regimen also is needed. Give the client a backup method* to use until the procedure can be performed.

1. Do you have any problems with your genitals, such as infections, swelling, injuries, or lumps on your penis or scrotum? If so, what problems?

❏ NO ❏ **YES** If he has any of the following, use *caution:*

- Previous scrotal injury
- Swollen scrotum due to swollen veins or membranes in the spermatic cord or testes (large varicocele or hydrocele)
- Undescended testicle—one side only. (Vasectomy is performed only on the normal side. Then, if any sperm are present in a semen sample after 3 months, the other side must be done, too.)

(Continued on next page)

* *Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell him that spermicides and withdrawal are the least effective contraceptive methods. If possible, give him condoms.*

▶ If he has any of the following, *delay* vasectomy:

- Active sexually transmitted infection
- Swollen, tender (inflamed) tip of the penis, sperm ducts (epididymis), or testicles
- Scrotal skin infection or a mass in the scrotum

▶ If he has any of the following, make *special* arrangements:

- Hernia in the groin. (If able, the provider can perform the vasectomy at the same time as repairing the hernia. If this is not possible, the hernia should be repaired first.)
- Undescended testicles—both sides

2. Do you have any other conditions or infections? If so, what?

❑ NO ❑ **YES** If he has the following, use *caution:*

- Diabetes
- Depression
- Young age
- Lupus with positive (or unknown) antiphospholipid antibodies or on immunosuppressive treatment

▶ If he has any of the following, *delay* vasectomy:

- Systemic infection or gastroenteritis
- Filariasis or elephantiasis

▶ If he has any of the following, make *special* arrangements:

- AIDS (see Vasectomy for Men With HIV, below)
- Blood fails to clot (coagulation disorders)
- Lupus with severe thrombocytopenia

Vasectomy for Men With HIV

- Men who are infected with HIV, have AIDS, or are on antiretroviral (ARV) therapy can safely have a vasectomy. Special arrangements are needed to perform vasectomy on a man with AIDS.
- Vasectomy does not prevent transmission of HIV.
- Urge these men to use condoms in addition to vasectomy. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.
- No one should be coerced or pressured into getting a vasectomy, and that includes men with HIV.

Providing Vasectomy

When to Perform the Procedure

- Any time a man requests it (if there is no medical reason to delay).

Ensuring Informed Choice

IMPORTANT: A friendly counselor who listens to a man's concerns, answers his questions, and gives clear, practical information about the procedure—especially its permanence—will help a man make an informed choice and be a successful and satisfied user, without later regret (see Female Sterilization, Because Sterilization Is Permanent, p. 174). Involving his partner in counseling can be helpful but is not required.

The 6 Points of Informed Consent

Counseling must cover all 6 points of informed consent. In some programs the client and the counselor sign an informed consent form. To give informed consent to vasectomy, the client must understand the following points:

1. Temporary contraceptives also are available to the client.
2. Voluntary vasectomy is a surgical procedure.
3. There are certain risks of the procedure as well as benefits. (Both risks and benefits must be explained in a way that the client can understand.)
4. If successful, the procedure will prevent the client from ever having any more children.
5. The procedure is considered permanent and probably cannot be reversed.
6. The client can decide against the procedure at any time before it takes place (without losing rights to other medical, health, or other services or benefits).

Vasectomy Techniques

Reaching the Vas: No-Scalpel Vasectomy

No-scalpel vasectomy is the recommended technique for reaching each of the 2 tubes in the scrotum (vas deferens) that carries sperm to the penis. It is becoming the standard around the world.

Differences from conventional procedure using incisions:

- Uses one small puncture instead of 1 or 2 incisions in the scrotum.
- No stitches required to close the skin.
- Special anesthesia technique needs only one needle puncture instead of 2 or more.

Advantages:

- Less pain and bruising and quicker recovery.
- Fewer infections and less collection of blood in the tissue (hematoma).
- Total time for the vasectomy has been shorter when skilled providers use the no-scalpel approach.

Both no-scalpel and conventional incision procedures are quick, safe, and effective.

Blocking the Vas

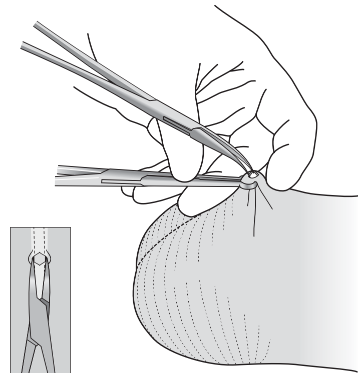
For most vasectomies ligation and excision is used. This entails cutting and removing a short piece of each tube and then tying both remaining cut ends of the vas. This procedure has a low failure rate. Applying heat or electricity to the ends of each vas (cauterizing) has an even lower failure rate than ligation and excision. The chances that vasectomy will fail can be reduced further by enclosing a cut end of the vas, after the ends have been tied or cauterized, in the thin layer of tissue that surrounds the vas (fascial interposition). If training and equipment are available, cautery and/or fascial interposition are recommended. Blocking the vas with clips is not recommended because of higher pregnancy rates.

Performing the Vasectomy Procedure

Explaining the Procedure

A man who has chosen a vasectomy needs to know what will happen during the procedure. The following description can help explain the procedure to him. Learning to perform a vasectomy takes training and practice under direct supervision. Therefore, this description is a summary and not detailed instructions.

1. The provider uses proper infection-prevention procedures at all times (see Infection Prevention in the Clinic, p. 312).
2. The man receives an injection of local anesthetic in his scrotum to prevent pain. He stays awake throughout the procedure.
3. The provider feels the skin of the scrotum to find each vas deferens—the 2 tubes in the scrotum that carry sperm.
4. The provider makes a puncture or incision in the skin:
   - Using the no-scalpel vasectomy technique, the provider grasps the tube with specially designed forceps and makes a tiny puncture in the skin at the midline of the scrotum with a special sharp surgical instrument.
   - Using the conventional procedure, the provider makes 1 or 2 small incisions in the skin with a scalpel.



5. The provider lifts out a small loop of each vas from the puncture or incision. Most providers then cut each tube and tie one or both cut ends closed with thread. Some close off the tubes with heat or electricity. They may also enclose one end of the vas in the thin layer of tissue that surrounds the vas (see Vasectomy Techniques, previous page).
6. The puncture is covered with an adhesive bandage, or the incision may be closed with stitches.
7. The man receives instructions on what to do after he leaves the clinic or hospital (see Explaining Self-Care for Vasectomy, p. 192). The man may feel faint briefly after the procedure. He should stand first with help, and he should rest for 15 to 30 minutes. He usually can leave within an hour.

Supporting the User

Explaining Self-Care for Vasectomy

Before the procedure the man should	• Wear clean, loose-fitting clothing to the health facility.
After the procedure the man should 	• Rest for 2 days if possible. • If possible, put cold compresses on the scrotum for the first 4 hours, which may decrease pain and bleeding. He will have some discomfort, swelling, and bruising. These should go away within 2 to 3 days. • Wear snug underwear or pants for 2 to 3 days to help support the scrotum. This will lessen swelling, bleeding, and pain. • Keep the puncture/incision site clean and dry for 2 to 3 days. He can use a towel to wipe his body clean but should not soak in water. • Not have sex for at least 2 to 3 days. • Use condoms or another effective family planning method for 3 months after the procedure. (The previously recommended alternative, to wait for 20 ejaculations, has proved less reliable than waiting 3 months and is no longer recommended.)
What to do about the most common problems	• Discomfort in scrotum usually lasts 2 to 3 days. Suggest ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever. He should not take aspirin, which slows blood clotting.
Plan the follow-up visit	• Ask him to return in 3 months for semen analysis, if available (see Question 4, p. 196). • No man should be denied a vasectomy, however because follow-up would be difficult or not possible.

"Come Back Any Time": Reasons to Return

Assure every client that he is welcome to come back any time—for example, if he has problems or questions, or his partner thinks she might be pregnant. (A few vasectomies fail and the men's partners become pregnant.) Also if:

- He has bleeding, pain, pus, heat, swelling, or redness in the genital area that becomes worse or does not go away.

General health advice: Anyone who suddenly feels that something is seriously wrong with his health should immediately seek medical care from a nurse or doctor. His contraceptive method is most likely not the cause of the condition, but he should tell the nurse or doctor what method he is using.

Helping Users

Managing Any Problems

Problems Reported as Complications

- Problems affect men's satisfaction with vasectomy. They deserve the provider's attention. If the client reports complications of vasectomy, listen to his concerns and, if appropriate, treat.

Bleeding or blood clots after the procedure

- Reassure him that minor bleeding and small uninfected blood clots usually go away without treatment within a couple of weeks.
- Large blood clots may need to be surgically drained.
- Infected blood clots require antibiotics and hospitalization.

Infection at the puncture or incision site (redness, heat, pain, pus)

- Clean the infected area with soap and water or antiseptic.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if the infection has not cleared.

Abscess (a pocket of pus under the skin caused by infection)

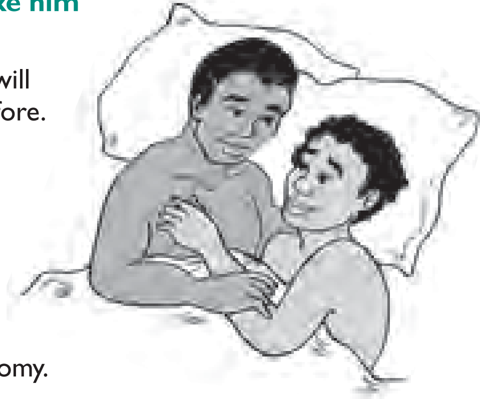
- Clean the area with antiseptic.
- Cut open (incise) and drain the abscess.
- Treat the wound.
- Give oral antibiotics for 7 to 10 days.
- Ask the client to return after taking all antibiotics if he has heat, redness, pain, or drainage of the wound.

Pain lasting for months

- Suggest elevating the scrotum with snug underwear or pants or an athletic supporter.
- Suggest soaking in warm water.
- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1000 mg), or other pain reliever.
- Provide antibiotics if infection is suspected.
- If pain persists and cannot be tolerated, refer for further care (see Question 2, next page).

Questions and Answers About Vasectomy

1. Will vasectomy make a man lose his sexual ability? Will it make him weak or fat?



No. After vasectomy, a man will look and feel the same as before. He can have sex the same as before. His erections will be as hard and last as long as before, and ejaculations of semen will be the same. He can work as hard as before, and he will not gain weight because of the vasectomy.

2. Will there be any long-lasting pain from vasectomy?

Some men report having chronic pain or discomfort in the scrotum or testicles that can last from 1 to 5 years or more after a vasectomy. In the largest studies, involving several thousand men, less than 1% reported pain in the scrotum or testicles that had to be treated with surgery. In smaller studies, of about 200 men, as many as 6% reported severe pain in the scrotum or testicles more than 3 years after the vasectomy. In a similar group of men who did not have vasectomies, however, 2% reported similar pain. Few men with severe pain say that they regret having the vasectomy. The cause of the pain is unknown. It may result from pressure caused by the build-up of sperm that has leaked from an improperly sealed or tied vas deferens, or from nerve damage. Treatment includes elevating the scrotum and taking pain relievers. An anesthetic can be injected into the spermatic cord to numb the nerves to the testicles. Some providers report that surgery to remove the painful site or reversing the vasectomy relieves the pain. Severe, long-lasting pain following vasectomy is uncommon, but all men considering a vasectomy should be told about this risk.

3. Does a man need to use another contraceptive method after a vasectomy?

Yes, for the first 3 months. If his partner has been using a contraceptive method, she can continue to use it during this time. Not using another method for the first 3 months is the main cause of pregnancies among couples relying on vasectomy.

4. **Is it possible to check if a vasectomy is working?**

   Yes. A provider can examine a semen sample under a microscope to see if it still contains sperm. If the provider sees no moving (motile) sperm, the vasectomy is working. A semen examination is recommended at any time after 3 months following the procedure, but is not essential.

   If there is less than one nonmotile sperm per 10 high-power fields (less than 100,000 sperm per milliliter) in the fresh sample, then the man can rely on his vasectomy and stop using a backup method for contraception. If his semen contains more moving sperm, the man should continue to use a backup method and return to the clinic monthly for a semen analysis. If his semen continues to have moving sperm, he may need to have a repeat vasectomy.

5. **What if a man's partner gets pregnant?**

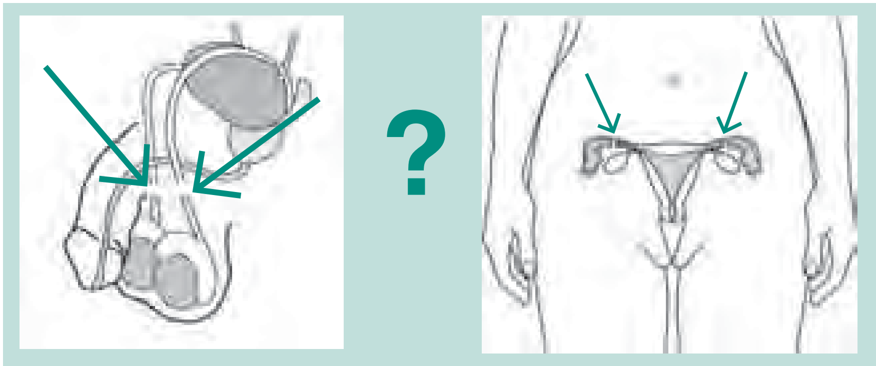
   Every man having a vasectomy should know that vasectomies sometimes fail and his partner could become pregnant as a result. He should not make the assumption that his partner was unfaithful if she becomes pregnant. If a man's partner becomes pregnant during the first 3 months after his vasectomy, remind the man that for the first 3 months they needed to use another contraceptive method. If possible, offer a semen analysis and, if sperm are found, a repeat vasectomy.

6. **Will the vasectomy stop working after a time?**

   Generally, no. Vasectomy is intended to be permanent. In rare cases, however, the tubes that carry sperm grow back together and the man will require a repeat vasectomy.

7. **Can a man have his vasectomy reversed if he decides that he wants another child?**

   Generally, no. Vasectomy is intended to be permanent. People who may want more children should choose a different family planning method. Surgery to reverse vasectomy is possible for only some men and reversal often does not lead to pregnancy. The procedure is difficult and expensive, and providers who are able to perform such surgery are hard to find. Thus, vasectomy should be considered irreversible.



8. Is it better for the man to have a vasectomy or for the woman to have female sterilization?

Each couple must decide for themselves which method is best for them. Both are very effective, safe, permanent methods for couples who know that they will not want more children. Ideally, a couple should consider both methods. If both are acceptable to the couple, vasectomy would be preferable because it is simpler, safer, easier, and less expensive than female sterilization.

9. How can health care providers help a man decide about vasectomy?

Provide clear, balanced information about vasectomy and other family planning methods, and help a man think through his decision fully. Thoroughly discuss his feelings about having children and ending his fertility. For example, a provider can help a man think how he would feel about possible life changes such as a change of partner or a child's death. Review The 6 Points of Informed Consent to be sure the man understands the vasectomy procedure (see p. 189).

10. Should vasectomy be offered only to men who have reached a certain age or have a certain number of children?

No. There is no justification for denying vasectomy to a man just because of his age, the number of his living children, or his marital status. Health care providers must not impose rigid rules about age, number of children, age of last child, or marital status. Each man must be allowed to decide for himself whether or not he will want more children and whether or not to have vasectomy.

11. Does vasectomy increase a man's risk of cancer or heart disease later in life?

No. Evidence from large, well-designed studies shows that vasectomy does not increase risks of cancer of the testicles (testicular cancer) or cancer of the prostate (prostate cancer) or heart disease.

12. Can a man who has a vasectomy transmit or become infected with sexually transmitted infections (STIs), including HIV?

Yes. Vasectomies do not protect against STIs, including HIV. All men at risk of STIs, including HIV, whether or not they have had vasectomies, need to use condoms to protect themselves and their partners from infection.

13. Where can vasectomies be performed?

If no pre-existing medical conditions require special arrangements, vasectomy can be performed in almost any health facility, including health care centers, family planning clinics, and the treatment rooms of private doctors. Where other vasectomy services are not available, mobile teams can perform vasectomies and any follow-up examinations in basic health facilities and specially equipped vehicles, so long as basic medications, supplies, instruments, and equipment can be made available.