

# Implants

## Key Points for Providers and Clients

- **Implants are small flexible rods** that are placed just under the skin of the upper arm.
- **They provide long-term pregnancy protection.** Implants are very effective for 3–5 years, depending on the type of implant, and they are immediately reversible.
- **They require a specifically trained provider to insert and remove them.** A woman cannot start or stop implants on her own.
- **Little is required of the client once implants are in place.** They avoid user errors and problems with resupply.
- **Bleeding changes are common but not harmful.** Typically, there is prolonged irregular bleeding over the first year, and then lighter, more regular bleeding, infrequent bleeding, or no bleeding.

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Implants

## What Are Implants?

- Implants are small plastic rods, 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 1 or 2 rods under the skin on the inside of a woman's upper arm.
- They do not contain estrogen, and so can be used throughout breastfeeding and by women who cannot use methods containing estrogen.
- Types of implants:
  - Jadelle: 2 rods containing levonorgestrel (LNG), highly effective for 5 years
  - Implanon NXT (also known as Nexplanon; replaces Implanon): 1 rod containing etonogestrel (ETG), labeled for up to 3 years of use (a recent study shows it may be highly effective for 5 years). Implanon NXT can be seen on X-ray and has an improved insertion device.
  - Levoplant (Sino-Implant (II)): 2 rods containing LNG, labeled for up to 3 years of use
  - Norplant: It consisted of 6 capsules and was effective for 5–7 years, but was discontinued in 2008 and is no longer available for insertion. A small number of women, however, may still need Norplant capsules removed.

- Implants work primarily by:
  - Preventing the release of eggs from the ovaries (ovulation)
  - Thickening cervical mucus (this blocks sperm from reaching an egg)

## How Effective?

*Implants are one of the most effective and longest-lasting methods.*

- Far less than 1 pregnancy would be expected per 100 women using implants over the first year. Specifically, just 1 pregnancy would be expected per 1,000 women using implants over the first year, which means that 999 of every 1,000 women using implants will not become pregnant. Less than 1 pregnancy would be expected per 100 women over the duration of use of the implant.
- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using implants.
- For heavier women, the effectiveness of Jadelle and Levoplant may decrease near the end of the duration of use stated on the label. These users may want to replace their implants sooner (see Question 9 at the end of this chapter, p. 162).



*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 both long-lasting and reversible
- Do not interfere with sex

# Side Effects, Health Benefits, Health Risks, and Complications

**Side Effects** (see also *Managing Any Problems*, later in this chapter, p. 151)

Some users report the following:

- Changes in bleeding patterns.<sup>1</sup>
    - First several months to 1 year:
      - Lighter bleeding and fewer days of bleeding
      - Prolonged bleeding
      - Irregular bleeding
      - Infrequent bleeding
      - No monthly bleeding
    - After about 1 year:
      - Lighter bleeding and fewer days of bleeding
      - Irregular bleeding
      - Infrequent bleeding
      - No monthly bleeding
  - Users of Implanon and Implanon NXT are more likely to have infrequent bleeding, prolonged bleeding, 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

Bleeding changes are normal and not harmful. If a woman finds them bothersome, counseling and support can help.

<sup>1</sup> For definitions of bleeding patterns, see “vaginal bleeding” in the Glossary.

## Health Benefits and Health Risks

### Known Health Benefits

Help protect against:

- Pregnancy and associated risks, including ectopic pregnancy

May help protect against:

- Iron-deficiency anemia

Reduces:

- Risk of ectopic pregnancy

### 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 (most expulsions occur within the first 4 months after insertion)

Extremely rare:

- Migration of implant. There have been a few reports of implants found in another place in the body due to improper insertion (for example, in a blood vessel).

## Correcting Misunderstandings

(see also [Questions and Answers](#), at the end of this chapter)

Implants:

- Do not work once they are removed. Their hormones do not remain in a woman's body.
- Do not cause any harm if they stop monthly bleeding. 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 increase the risk of ectopic pregnancy (see Question 7, p. 162).

# 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 had children or have not had children
- Are married or are not married
- Are of any age, including adolescents and women over 40 years old (see Question 13, at the end of this chapter)
- Have just had an abortion, miscarriage, or ectopic pregnancy
- Smoke cigarettes, regardless of age or the number of cigarettes smoked
- Are breastfeeding
- Have anemia now or in the past
- Have varicose veins
- Are living with HIV, whether or not they are on antiretroviral therapy (see the box titled: Implants for Women With HIV, p. 137)

## Avoid Unnecessary Procedures

(see Importance of Selected Procedures for Providing Family Planning Methods, at the start of Chapter 26)

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
- Without a pregnancy test
  - A woman can have implants inserted at any time, even when she is not having monthly bleeding at the time, if it is reasonably certain she is not pregnant (see Pregnancy Checklist, inside back cover).

Blood pressure measurement is desirable before starting a hormonal method. However, where the risks of pregnancy are high and few methods are available, a woman should not be denied a hormonal method simply because her blood pressure cannot be measured. If possible, she can have her blood pressure measured later, at a time and place convenient for her.

## Medical Eligibility Criteria for Use of 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. Do you have severe cirrhosis of the liver or a severe liver tumor?

- ☐ No ☐ Yes If the client reports severe cirrhosis or severe liver tumor, such as liver cancer, do not provide implants. Help her choose a method without hormones.

### 2. Do you have a serious problem now with a blood clot in your leg or lungs?

- ☐ No ☐ Yes If the client reports a current blood clot in one of her legs (affecting deep veins, not superficial veins) or in a lung and she is not on anticoagulant therapy, do not provide implants. Help her choose a method without hormones.

### 3. Are you having vaginal bleeding that is unusual for you?

- ☐ No ☐ Yes If the client 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 another method to use until the condition has been evaluated and treated, but not progestin-only injectables or a copper-bearing or hormonal IUD. After treatment, reconsider the use of implants.

### 4. Do you have or have you ever had breast cancer?

- ☐ No ☐ Yes If yes, do not provide implants. Help her choose a method without hormones.

Also, a woman should not use implants if she reports having lupus with positive (or unknown) antiphospholipid antibodies and is not on immunosuppressive treatment. For complete classifications, see Appendix D – Medical Eligibility Criteria for Contraceptive Use.

Be sure to explain the health benefits as well as the potential risks and side effects associated with the client’s chosen method. Also, point out any conditions that would make the method inadvisable for use by that particular 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 care.

- 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 cirrhosis of the liver or liver tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies, and not on immunosuppressive treatment

## Implants for Women With HIV

- Women who are living with HIV including those who are on antiretroviral therapy (ART) can safely use implants.
- Efavirenz may reduce the effectiveness of implants. Women taking this antiretroviral drug need to use condoms along with implants to provide better protection from pregnancy. (See Question 14, at the end of this chapter.)



# 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 inside back cover of this Handbook). No tests or examinations are necessary before starting implants, although blood pressure measurement is desirable.

Woman's situation	When to start
<b>Having menstrual cycles or switching from a nonhormonal method</b>	<b>Any time of the month</b> <ul style="list-style-type: none"><li>• <i>If it is within 7 days after the start of her monthly bleeding, she can have implants inserted immediately and there is no need for a backup method.</i></li><li>• <i>If it is more than 7 days after the start of her monthly bleeding, she can have implants inserted any time if it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after insertion.</i></li><li>• <i>If she is switching from an IUD, see Switching From an IUD to Another Method, in Chapter 10 – Copper-Bearing Intrauterine Device, pp. 187–188.</i></li></ul>
<b>Switching from another hormonal method</b>	<ul style="list-style-type: none"><li>• <i>If she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant, she can have implants inserted immediately (no need to wait for her next monthly bleeding) and there is no need for a backup method.</i></li><li>• <i>If she is switching from a progestin-only or combined monthly injectable, she can have implants inserted when the repeat injection would have been given. There is no need for a backup method.</i></li></ul>

\* Backup methods include abstinence, male and female condoms, spermicides, and withdrawal; the client should be informed 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 her monthly bleeding has not returned, she can have implants inserted any time between giving birth and 6 months. There is 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 the first row of this table).*

#### More than 6 months after giving birth

- *If her monthly bleeding has not returned, she can have implants inserted any time if 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 the first row of this table).*

#### Partially breastfeeding

- *If her monthly bleeding has not returned, she can have implants inserted any time if it is reasonably certain she is not pregnant.<sup>†</sup> 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 the first row of this table).*

### Not breastfeeding (after giving birth)

#### Less than 4 weeks after giving birth

- *She can have implants inserted at any time and there is no need for a backup method.*

#### More than 4 weeks after giving birth

- *If her monthly bleeding has not returned, she can have implants inserted any time if it is reasonably certain she is not pregnant.<sup>†</sup> 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 the first row of this table).*

#### No monthly bleeding (not related to childbirth or breastfeeding)

- *She can have implants inserted any time if it is reasonably certain she is not pregnant. She will need a backup method\* for the first 7 days after insertion.*

(Continued on next page)

<sup>†</sup> Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception are 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.

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**Woman's situation    When to start** *(continued)*

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**After miscarriage or abortion**

- *If it is within 7 days* after first- or second-trimester miscarriage or abortion, she can have implants inserted immediately and there is 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 if it is reasonably certain she is not pregnant. She will need a backup method\* for the first 7 days after insertion.

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**After taking emergency contraceptive pills (ECPs)****After taking progestin-only or combined ECPs**

- Implants can be inserted on the same day as taking the ECPs. *There is no need to wait for the next monthly bleeding.* She will need a backup method\* for the first 7 days after insertion.
- If she does not start immediately but returns for an implant, she can start at any time if it is reasonably certain she is not pregnant.

**After taking ulipristal acetate (UPA) ECPs**

- Implants can be inserted on the 6th day after taking UPA-ECPs, so make an appointment for her to return to have the implant inserted on the 6th day after taking UPA-ECPs or as soon as possible after that. *There is no need to wait for the next monthly bleeding.* Implants and UPA interact. The progestin in the implant and the UPA interact with each other. If an implant is inserted sooner, and both are thus present in the body, one or both of the medicines may be less effective.
- She will need a backup method\* from the time she takes UPA-ECPs until 7 days after the implant is inserted.
- If she does not start on the 6th day but returns later for implants, she can start at any time if it is reasonably certain she is not pregnant.

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\* Backup methods include abstinence, male and female condoms, spermicides, and withdrawal; the client should be informed that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.

## Giving Advice on Side Effects

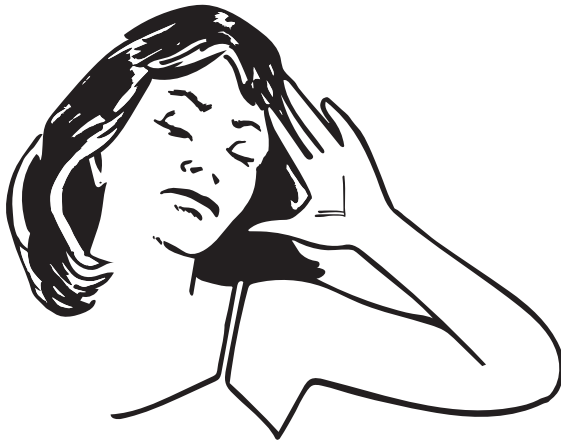
**IMPORTANT:** Thorough counseling about bleeding changes and other side effects must be provided before inserting implants. Counseling about bleeding changes may be the most important help a woman needs to enable her to keep using this method without concern.

### Describe the most common side effects

- Changes in her bleeding pattern:
  - Over the first year: Irregular bleeding that lasts more than 8 days at a time
  - Later: Regular, infrequent, or no bleeding at all
- Other common side effects include headaches, abdominal pain, and breast tenderness, among others.

### Explain about these side effects

- Side effects are not signs of illness.
- Lack of bleeding does not mean pregnancy.
- 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 or if she has other concerns.



# Inserting Implants

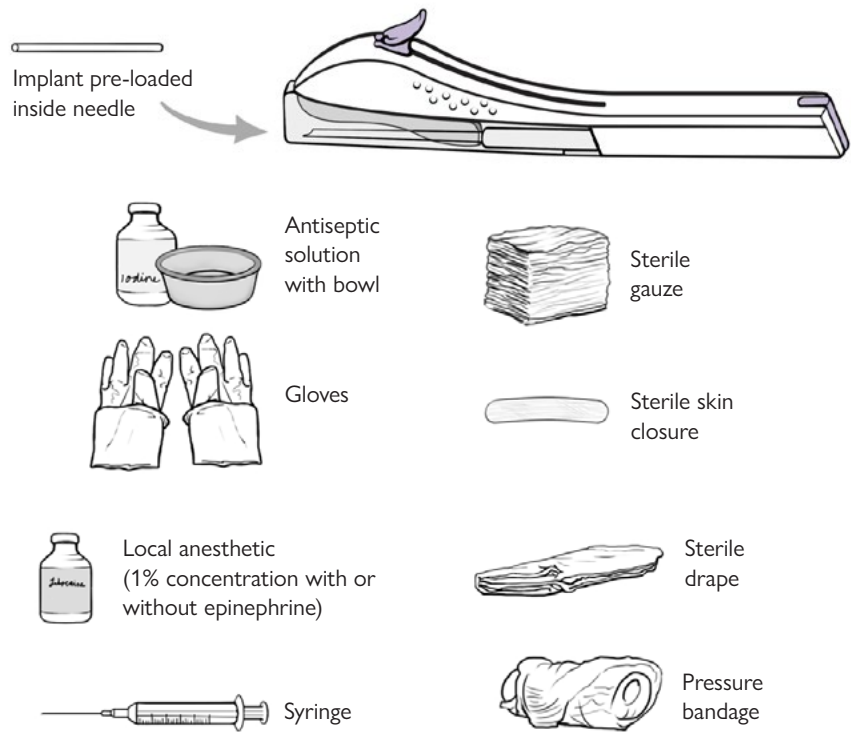
## Explaining the Insertion Procedure to the Client

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. 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.

## Insertion Procedure for 1-Rod Implants – Implanon NXT (Nexplanon)

The provider should ensure that the essential equipment, supplies, and the implant itself are available (see below).

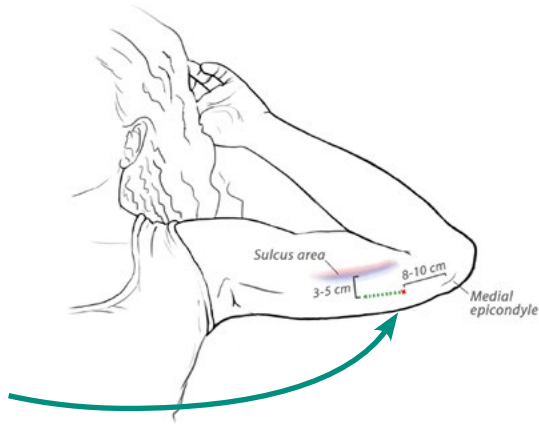
The provider should use proper infection-prevention practices throughout the procedure.



# Steps for the Insertion Procedure for 1-Rod Implants

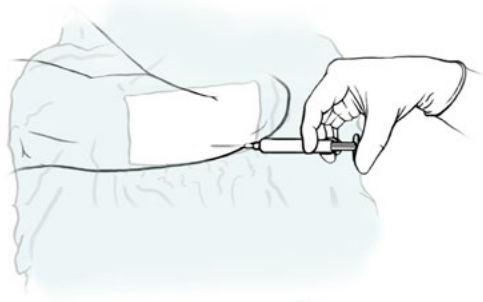
- 1** Place a clean, dry cloth under the woman's arm and position the non-dominant arm with elbow flexed and hand behind ear.

Mark position on arm for insertion of rod, 8–10 cm from the medial epicondyle and 3–5 cm below the sulcus.

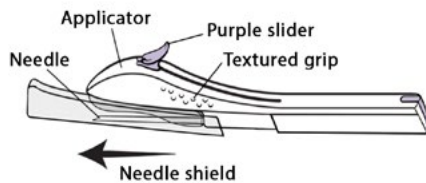


- 2** Prep insertion site with antiseptic solution and drape.

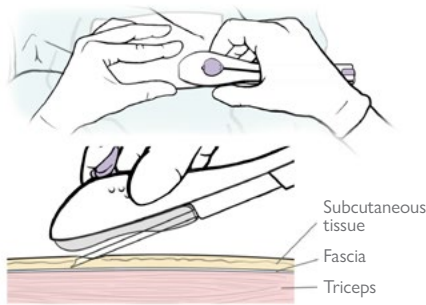
Inject 1–2 mL of 1% lidocaine just under the skin, raising a wheal at the insertion point and advancing up to 5 cm along the insertion track.



- 3** Using the no-touch technique, remove the sterile disposable 1-rod applicator from blister pack. Hold it at the textured surface area. Visually verify presence of implant inside of needle. Remove needle shield.



- 4** Provider should be situated to visualize the insertion and ensure it is subcutaneous and parallel to the arm.



Stretch skin near insertion site with thumb and index finger.

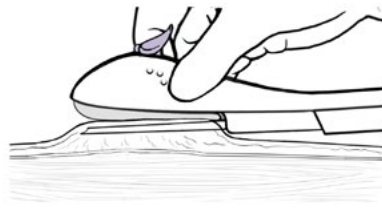
Puncture skin with applicator at a 30° angle and insert only the bevel of the needle.

- 5** Visualizing the needle, lower the applicator until parallel with surface of skin and gently advance, while lifting skin upwards to ensure superficial placement.



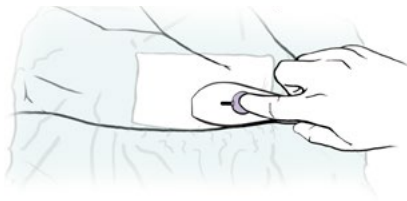
Insert entire length of the needle without using force.

Verify entire length of the needle has been inserted in the skin before the next step.



- 6** Hold the applicator in this position and press the purple slider downwards until it stops.

This action will retract the needle into the body of the applicator.



- 7** Gently remove applicator, leaving the implant in place.



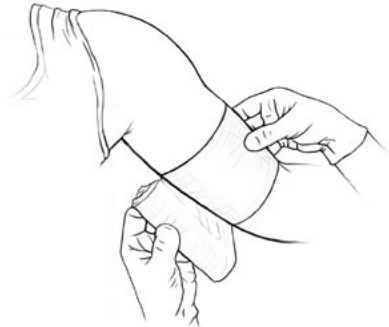
- 8** Palpate to check the implant is in place. Ask the woman to palpate the implant to confirm its presence.



- 9** Close the incision site with a sterile skin closure.

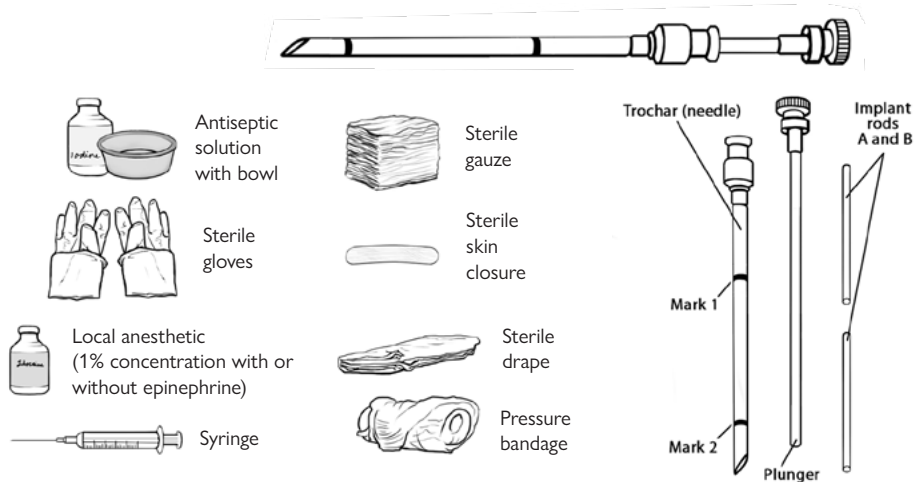


- 10** Apply pressure bandage dressing to minimize bleeding and bruising.



# Insertion Procedure for 2-Rod Implants – Jadelle and Levoplant

The provider should ensure that the essential equipment, supplies, and the implant itself are available (see below). The provider should use proper infection-prevention practices throughout the procedure.

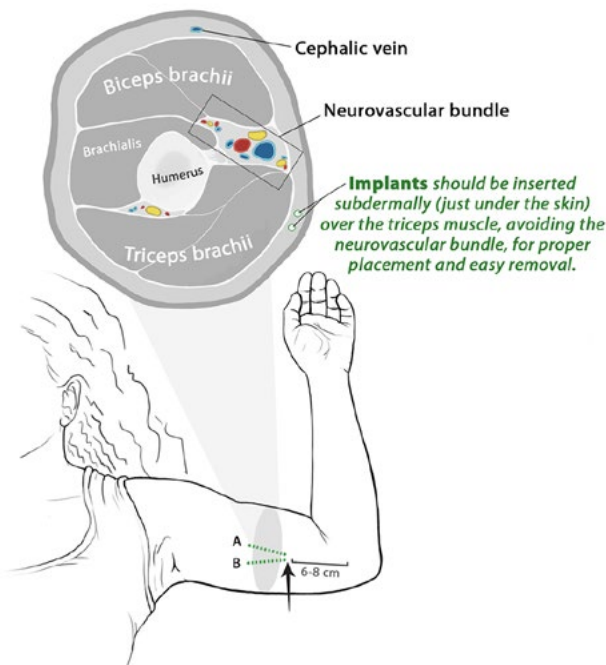


## Steps for the Insertion Procedure for 2-Rod Implants

1

Place a clean, dry cloth under the woman's arm and position the non-dominant arm with elbow flexed and hand parallel to ear.

Mark positions (A) and (B) on arm for insertion of rods, 6–8 cm above the medial epicondyle

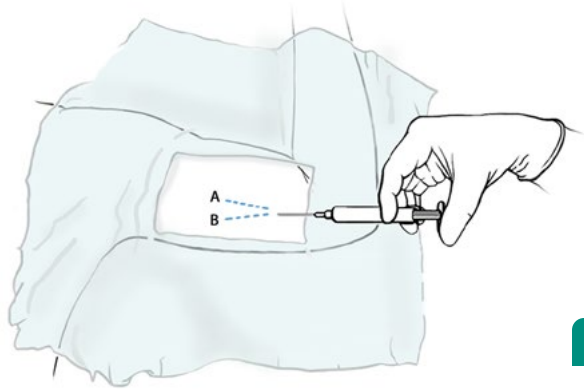




## 2

Prep insertion site with antiseptic solution and drape.

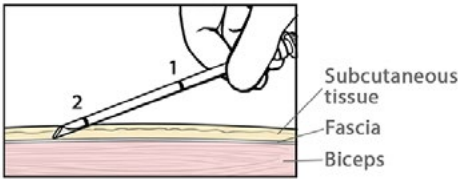
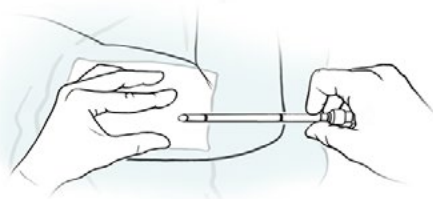
Inject 1–2 mL of 1% lidocaine just under the skin raising a wheal at the insertion point and advancing up to 5 cm along the insertion tracks (A&B).



## 3

Stretch skin near insertion site with thumb and index finger.

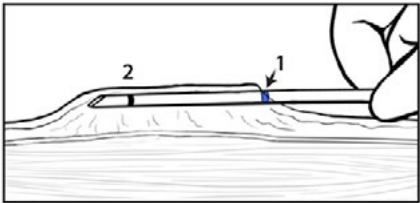
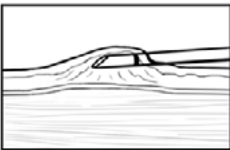
Puncture skin with trocar at a 20° angle and insert only the bevel of the needle.



## 4

Lower the applicator until parallel with surface of the skin and gently advance, while lifting skin upwards to ensure superficial placement.

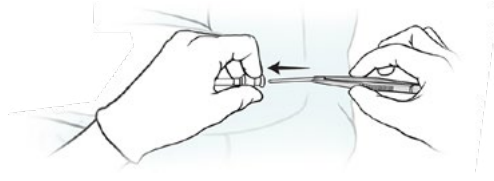
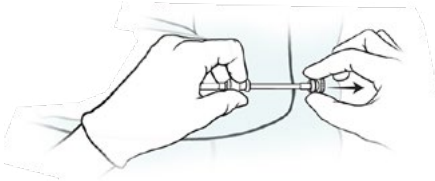
Advance trocar and plunger to mark (1) nearest the hub of the trocar.



## 5

Remove plunger while holding trocar in place.

Load first rod (A) into trocar with tissue forceps.



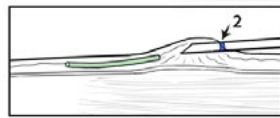
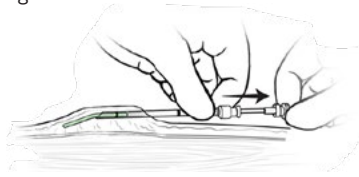
Steps for the Insertion Procedure for 2-Rod Implants (continued)

- 6** Reinsert plunger, advancing until resistance is felt



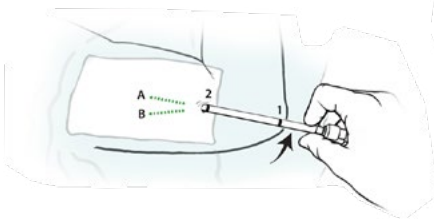
- 7** Hold plunger firmly in place with one hand, and slide the trocar out of the incision until it reaches the plunger handle.

Withdraw trocar and plunger together until mark (2) nearest the trocar tip (do not remove the trocar from the incision).



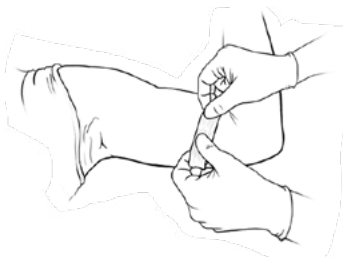
- 8** At mark (2), redirect the trocar about 15° away from the first rod inserted (A). Advance trocar and plunger toward (B) up to mark (1) and insert second rod (B) using the same technique (repeat steps 5–7).

- 9** Palpate to check the implants are in place. Ask the woman to palpate the implants to confirm their presence.



- 10** Close the incision site with a sterile skin closure.

- 11** Apply pressure bandage dressing to minimize bleeding and bruising.



# Advice for the Client After Inserting Implants

## Give specific instructions

Keep arm dry	<ul style="list-style-type: none"><li>The user should keep the insertion area dry for 4 days. She can take off the gauze after 2 days and the adhesive bandage and surgical tape when the incision heals, usually after 3–5 days.</li></ul>
Expect soreness, bruising	<ul style="list-style-type: none"><li>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.</li></ul>
Length of pregnancy protection	<ul style="list-style-type: none"><li>Explain that it is important to have implants removed before they start to lose effectiveness. At that time, she can have a new set of implants inserted if she wants.</li><li>Discuss how to remember the date to return for implant removal and possible replacement.</li><li>Give each woman the following information in writing on a reminder card, like the one shown below, if possible, and explain:<ul style="list-style-type: none"><li>the type of implant she has and in which arm</li><li>the date of insertion</li><li>the month and year when implants will need to be removed or replaced</li><li>where to go if she has problems or questions about her implants.</li></ul></li></ul>

Implant Reminder Card

Client's name: \_\_\_\_\_

Type of implant: \_\_\_\_\_ Arm: L \_\_\_\_\_ R \_\_\_\_\_

Date inserted: \_\_\_\_\_

Remove or replace by: Month: \_\_\_\_\_ Year: \_\_\_\_\_

If you have any problems or questions, go to:  
\_\_\_\_\_  
(name and location of facility)

# Supporting New and Continuing Users

## How Can a Partner Help?

The client's partner is welcome to participate in counseling and learn about the method and what support he can give to his partner.

A male partner can:

- Support his partner's choice of implants
- Show understanding and support if she has side effects
- Use condoms consistently in addition to the implant if he has an STI/HIV or thinks he may be at risk of an STI/HIV
- Help to remember when the implant is due for removal.

## ***“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; if she has a major change in health status; or if 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 wants the implants taken out, for whatever reason.
- It is time for the implants to be removed and, if she wishes, for new implants to be put in.

## **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 health worker what method she is using.

## Follow-up Visits With Implant Users

**IMPORTANT:** No routine return visit is required until it is time to remove the implants (see Removing Implants, pp. 157–160). However, the client should be invited to return any time she wishes.

At any future visit:

1. Ask how the client is doing with the method and whether she is satisfied. Ask if she has any questions or anything she would like to discuss.
2. In particular, ask if she is concerned about bleeding changes. Give her any information or help that she needs (see Managing Any Problems, below).
3. Ask long-term clients if they have had any new health problems since their last visit. Address problems as appropriate. For new problems that may require switching methods, see the section with that title on pp. 155–156.
4. Ask long-term clients about any major life changes that may affect family planning needs—particularly plans for having children and STI/HIV risk. Follow up as needed.
5. 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*

These problems may or may not be due to the use of implants, but they affect women's satisfaction and use of this method and therefore deserve the provider's attention. The following information advises how to address any reported side effects or complications, and specific conditions.

#### **Any reported side effects or complications**

- Listen to the client's concerns, give her advice and support, and, if appropriate, treat the condition. Make sure she understands the advice and agrees.
- Offer to help her choose another method—now, if she wishes, or if problems cannot be overcome.

### **Irregular bleeding** (bleeding at unexpected times)

- 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 medicines do not help her, she can try one of the following, beginning when irregular bleeding starts:
  - Combined oral contraceptives (COCs) containing the progestin levonorgestrel – 1 pill daily for 21 days
  - COCs containing 50 µg ethinyl estradiol – 1 pill 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 the row on “Unexplained vaginal bleeding”, on p. 156).

### **No monthly bleeding**

- If the client has no monthly bleeding soon after implant insertion, rule out pregnancy (see the job aid, Ruling Out Pregnancy). She might have been pregnant at the time of insertion. If she is pregnant, remove the implant.
- If she is not pregnant, 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; blood is not building up inside her. It is similar to not having monthly bleeding during pregnancy. It does not mean she has become infertile. Some women are happy to be free from monthly bleeding, when they understand that it is not harmful. Also, not bleeding can have health benefits, for example, reducing the risk of anemia.

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

- Reassure the client 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 suggested above, beginning when heavy bleeding starts. COCs containing 50 µg of ethinyl estradiol may work better than lower-dose COCs.
- 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 the row on “Unexplained vaginal bleeding”, on p. 156).

### Ordinary headaches (nonmigrainous)

- Suggest aspirin (325–650 mg), ibuprofen (200–400 mg), paracetamol (325–1,000 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 paracetamol (325–1,000 mg), aspirin (325–650 mg), ibuprofen (200–400 mg), or other pain reliever.
- Consider locally available remedies.

### Acne

- Consider locally available remedies.
- If the client wants to stop using implants because of acne, she can consider switching to COCs. Acne improves for many women with COC use.

### Weight change

- Review the client’s diet with her 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 (325–1,000 mg), or other pain reliever.
- Consider locally available remedies.

### Mood changes or changes in sex drive

- Ask the client 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 (325–1,000 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 7–10 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)

- Do not remove the implants.
- Clean the area with antiseptic.
- Cut open (incise) and drain the abscess.
- Treat the wound.
- Give oral antibiotics for 7–10 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 begin to come out of the arm)

- This is rare, but if it does occur it will usually be within a few months of insertion or with infection.
- If no infection is present, after offering an explanation and counseling, 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. Ectopic pregnancy is rare and not caused by implants, but it can be life-threatening (see Question 7, p. 162). 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 another serious health condition is suspected, refer the client at once for immediate diagnosis and care. (See Chapter 12 – Female Sterilization, section on Managing Ectopic Pregnancy, p. 237, for more on ectopic pregnancies.)

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## New Problems That May Require Switching Methods

These problems also may or may not be due to the use of implants.

**Migraine headaches** (see the job aid on Identifying Migraine Headaches and Auras, pp. 458–460)

- If the client 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.

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

- Refer or evaluate the client 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 (but not progestin-only injectables, or a copper-bearing or hormonal IUD) to use until the condition is evaluated and treated.
- If bleeding is caused by an STI or pelvic inflammatory disease, she can continue using implants during treatment.

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

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

**Suspected pregnancy**

- Assess the client for pregnancy, including ectopic pregnancy (see “Severe pain in lower abdomen”, previous page).
- 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, p. 161).

# 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. If the implants may be difficult to remove, a provider with the necessary skills should be available. Removals should be provided free of charge if possible.

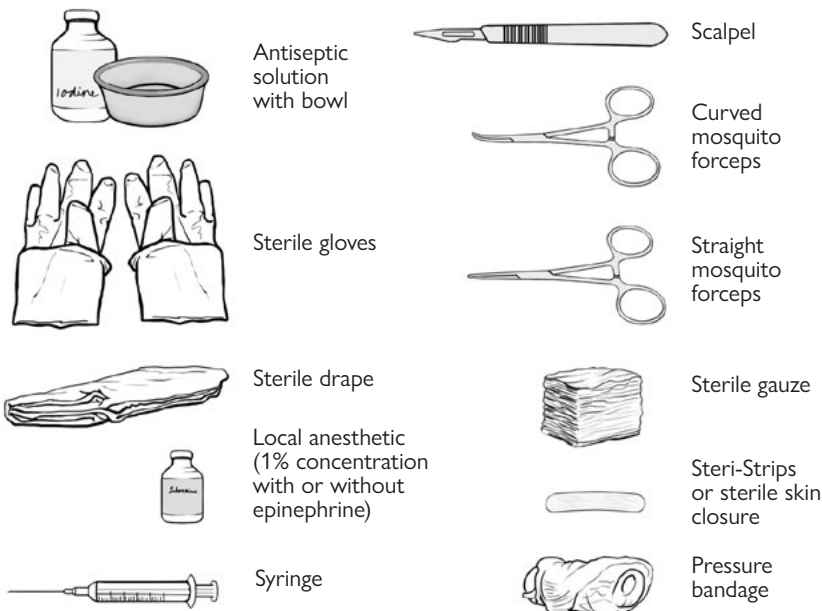
## Explaining the Removal Procedure to the Client

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.

The provider should ask whether the woman wants to continue preventing pregnancy and discuss her options. If she wants new implants, they should be placed above or below the site of the previous implants or in the other arm.

## Removal Procedure for Implants

The provider should ensure that the essential equipment, and supplies, are available (see below). The provider should use proper infection-prevention practices throughout the procedure.



## Steps for the Removal Procedure

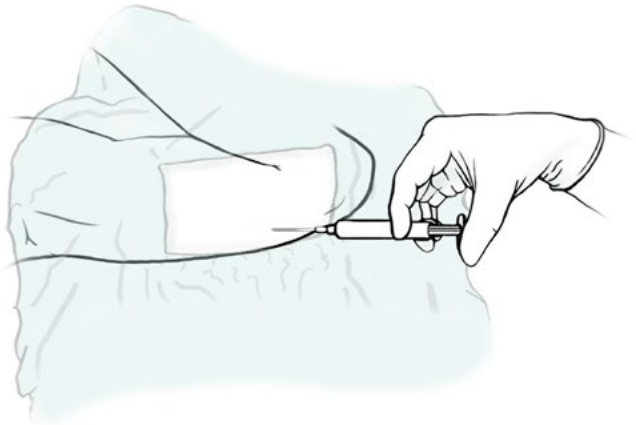
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- 1** Locate 1- or 2-rod implant by palpation and pressing down. Refer for further examination if not located. Determine location of the distal end of the implant by palpation and mark this as the incision site.

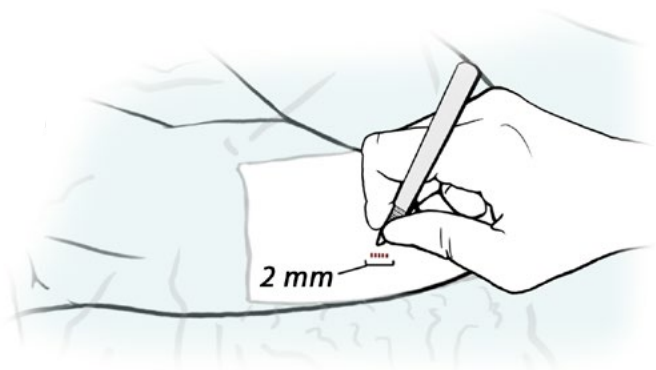


If the implant cannot be located, check both of the possible insertion sites (A and B), as well as both arms. If it is not possible to find the implant, refer the woman for further examination.

- 2** Prep insertion site with antiseptic solution and drape. Inject 1–2 mL of 1% lidocaine just under the implant so as not to obscure it. If this is a 2-rod system, inject between the 2 rods.



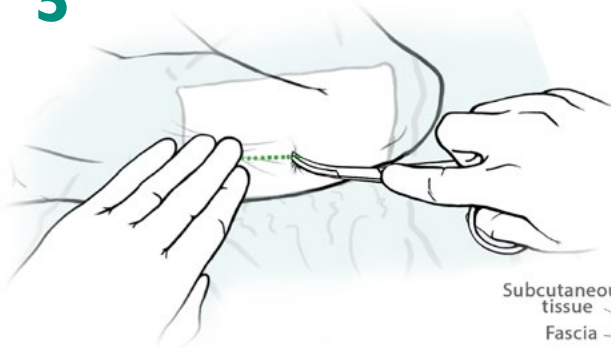
- 3** Make a small (2 mm) stab incision, at the tip(s) of and parallel to the implant(s).



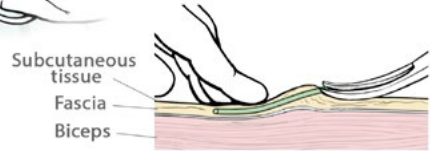
- 4** Push the implant(s) toward the incision until the tip is visible. If this a 2-rod system, remove them 1 at a time.



**5**

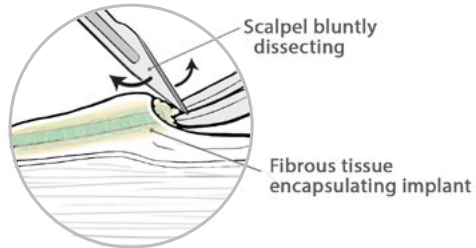


Grasp implant with a curved mosquito forceps and gently remove it.



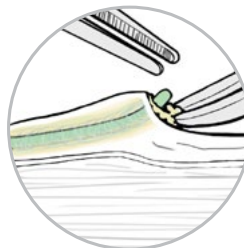
**6**

If the tip of the implant does not become visible in the incision, insert a forceps tip into the incision, grasp the implant and remove fibrous tissue with back of scalpel blade and/or gauze.

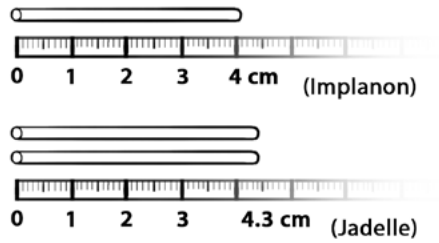


**7**

After the implant is exposed, grasp with second pair of mosquito forceps and gently remove it.



- 8** Ensure that the complete rod has been removed; show it to the client.  
If this is a 2-rod system, repeat steps 4–7 to remove the second rod.



- 9** Close the incision site with sterile skin closure.



- 10** Apply pressure bandage dressing to minimize bleeding and bruising.



# 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 necessary or required. Of course, women are welcome to return at any time with questions or to have implants removed.

## 2. Can implants be left 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. After they lose effectiveness, they may still release a small dose of hormone for several more years, which serves no purpose.

If a woman wants to continue using implants, she may have a new implant inserted in the other arm even if the first implant is not removed at that time; for example, if removal services are not immediately available.

## 3. Do implants cause cancer?

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

## 4. How long does it 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.

## 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 come out of a woman's arm?**

Rarely, a rod may start to come out, most often in the first 4 weeks 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 implant(s) 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, 10–17 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, and so a provider should be aware that ectopic pregnancy is possible if implants fail.

## **8. When can a breastfeeding woman start implants?**

In 2015, WHO considered this question and updated its guidance to allow a woman to use progestin-only implants after childbirth regardless of how recently she gave birth. She does not need to wait until 6 weeks postpartum. This change in guidance also applies to progestin-only pills and the LNG-IUD. For details on when breastfeeding women can start implants, see the section on When to Start, earlier in this chapter, on p. 138.

## **9. Should heavy women avoid implants?**

No. Some but not all studies have found that Jadelle implants became slightly less effective for heavier women after 4 or more years of use. As a precaution, women weighing over 80 kg may want to have their implants replaced after 4 years for greatest effectiveness. Studies of Implanon have not found that effectiveness decreases for heavier women 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 require treatment only if they grow abnormally large, twist, or burst. These follicles usually go away without treatment (see the row on “Severe pain in lower abdomen” in the section of this chapter on Managing Any Problems, p. 151).

## 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, inside back cover). No condition that can be detected by a pelvic examination rules out the use of implants.

## 13. Can young women, including adolescents, use implants?

Yes. If a young woman wants to use implants, she can. In fact, implants and IUDs can be good methods for young women who want to be sure to avoid pregnancy for a number of years. They are highly effective and long-lasting methods. According to WHO’s *Medical Eligibility Criteria for Contraceptive Use*, age is not relevant to implant use. Implant use will not affect a young woman’s future fertility, whether or not she has already had children.

All young women seeking contraception, whether married or not and whether or not they have had children, can safely choose from the full range of available contraceptive methods. This includes implants, copper-bearing IUDs, and LNG-IUDs. If women want to have children in the future, however, they should not choose female sterilization, which is a permanent method.

#### **14. Should women who are taking efavirenz be offered implants?**

Yes. Women taking the antiretroviral (ARV) drug efavirenz as HIV treatment should be offered implants along with the full range of contraceptive methods. However, it is important to tell women who are taking efavirenz that this drug is likely to make the implants less effective. For women taking efavirenz, implants may be about as effective as combined oral contraceptives or male condoms as typically used.

Women taking efavirenz who choose implants should be encouraged to use condoms in addition to implants to enhance protection from pregnancy. Alternatively, they can consider other effective contraceptive methods that do not interact with efavirenz or other ARV drugs. These methods include progestin-only injectables, the copper-bearing IUD, and the LNG-IUD, or—if they want no more children—female sterilization or vasectomy for their partner.

A user of implants who is starting on efavirenz or already taking it should be told about this reduced effectiveness. A provider can then help her decide whether to keep using implants or switch to another, more effective method. If she prefers another method, the provider can remove the implants and help her start the other method.