

# Unit 7

## CONTRACEPTIVE IMPLANTS

### Learning Objectives

By the end of this unit, learners will be able to:

- ❖ Define contraceptive implants
- ❖ List the types of contraceptive implants available in Malawi
- ❖ State the effectiveness of implants and explain how they work
- ❖ List the characteristics of implants
- ❖ Correct misconceptions about implants
- ❖ State when women in different situations can start using implants
- ❖ Determine a client's medical eligibility for implant use
- ❖ Demonstrate knowledge and skills in counselling clients to make an informed choice to use implants
- ❖ List potential complications of implants and their warning signs
- ❖ Describe the procedures for implant insertion and removal
- ❖ Provide client instructions following implant insertion or removal
- ❖ Explain management of side effects or problems due to implants
- ❖ Demonstrate competence in the insertion and removal of implants.

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## Unit 7: Contraceptive Implants

### Key Points

- ❖ **Safe, highly effective contraception**
- ❖ **Long-term pregnancy protection**—very effective for 3 to 7 years, depending on product
- ❖ **Require a specifically trained provider to insert and remove**
- ❖ **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.

### 7.1 Defining Contraceptive Implants

Contraceptive implants are thin, flexible plastic rods or capsules, each about the size of a matchstick, that release a synthetic progestin, like the natural hormone progesterone in a woman's body.

A health provider performs a minor surgical procedure to insert the capsules just under the skin on the inside of a client's upper arm. The progestin diffuses slowly through the wall of the capsules in a continuous low dose.

Contraceptive implants do not contain oestrogen and so can be used throughout breastfeeding and by women who cannot use methods with oestrogen.

#### Types of implants and formulations

- **Jadelle:** 2 rods, each has 75 mg levonorgestrel, effective for 5 years. This is the primary implant available in Malawi.
- **Norplant:** 6 capsules, each has 36 mg levonorgestrel, labelled for 5 years but studies show that Norplant is effective for at least 7 years. (Norplant is being phased out in Malawi. See Question 11, Section 7.15.)
- **Sino-Implant (II):** 2 rods, each has 75 mg levonorgestrel, effective for 5 years
- **Implanon:** 1 rod, which has 68 mg etonogestrel, effective for 3 years

#### How contraceptive implants work

Implants work primarily by:

- Preventing release of eggs from the ovaries (ovulation)
- Thickening cervical mucus, which prevents sperm from meeting an egg
- Thinning endometrial lining, preventing implantation.

### 7.2 Effectiveness of Implants

One of the most effective, reversible and long-lasting methods:

- Less than 1 pregnancy occurs per 100 women using implants (5 per 10,000 women), or 99.95% effective.

- The risk of pregnancy after the first year depends on the type of implant used:
  - Over 5 years of Jadelle use: About 1 pregnancy per 100 women
  - Over 7 years of Norplant use: About 2 pregnancies per 100 women.

Jadelle and Norplant implants start to lose effectiveness sooner for heavier clients:

- For clients weighing 80 kg or more, Jadelle and Norplant become less effective after 4 years of use.
- For clients weighing 70–79 kg, Norplant becomes less effective after 5 years of use.

## 7.3 Characteristics

### Advantages

- Highly effective
- Long-term effectiveness
- Do not interfere with intercourse
- Rapid return to fertility
- Require no further action by user after insertion
- Can be provided by trained non-physician (nurses, clinical officers)

### Disadvantages

- Insertion and removal requires minor surgical procedure by trained provider.
- Barbituates, phenytoin (taken for epilepsy) and rifampicin (for tuberculosis) may make implants less effective.
- Do not protect against sexually transmitted infections (STIs), including HIV

### Side effects

Some users report the following:

- Changes in vaginal bleeding patterns, including:

#### First several months

- Lighter bleeding and fewer days of bleeding
- Irregular bleeding that lasts more than 8 days
- Infrequent bleeding
- No monthly bleeding

#### After about one year

- Lighter bleeding and fewer days of bleeding
- Irregular bleeding
- Infrequent bleeding

- Headaches
- Abdominal pain
- Acne (can improve or worsen)
- Weight change
- Breast tenderness
- Dizziness, nausea
- Mood changes
- Enlarged ovarian follicles

## Health benefits

- Helps protect against symptomatic pelvic inflammatory disease
- May help prevent iron-deficiency anaemia
- May decrease menstrual cramps and bleeding

## Health risks

None

## Complications

### Uncommon:

- Infection at insertion site (most infections occur within first 2 months after insertion)
- Difficult removal

### Rare:

- Expulsion of implant (expulsion most often occurs within first 4 months after insertion)

## 7.4 Correcting Misconceptions

### Implants:

- Do not make women infertile
- Do not move to other parts of the body
- Substantially reduce the risk of ectopic pregnancy
- 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.
- Stop working once they are removed. Their hormones do not remain in a woman's body after removal.
- Do not cause health problems in children conceived after use.



(Photo: David Alexander, CCP; courtesy of Photoshare)

(See Section 7.15, Questions and Answers, for more details.)

## 7.5 Women Who Can Use Implants

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
- Have just had an abortion, miscarriage or ectopic pregnancy
- Smoke cigarettes
- Are breastfeeding (starting as soon as 6 weeks after childbirth)

- Have anaemia now or have had it in the past
- Have varicose veins
- Are infected with HIV, whether or not on antiretroviral therapy.

## 7.6 Women Who Should Not Use Implants

Women who should not use implants include those with the following conditions:

### **WHO MEC Category 3**

- Breastfeeding a baby less than 6 weeks old
- Severe liver disease, liver infection, or liver tumour
- Current blood clot in deep veins of legs or in the lungs
- Unexplained, unusual vaginal bleeding
- Current breast cancer or history of breast cancer
- Taking barbiturates, carbamazepine, oxcarbazepine, phenytoin, primidone, topiramate or rifampicin. These drugs reduce the effectiveness of implants.

(For a complete list of clients who should not use implants, see the WHO MEC Summary Tables in Unit 4: Family Planning Client Assessment and the WHO MEC.)

### **Women can access implants:**

- Without a pelvic examination
- Without any blood tests or other routine laboratory tests
- Without cervical cancer screening
- Without a breast examination
- When she is not having monthly bleeding, if it is reasonably certain she is not pregnant. (See Pregnancy Checklist in Unit 4, FP Client Assessment and the WHO MEC.)

## 7.7 Implants for Women Living with HIV

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

## 7.8 Screening Checklist

### Checklist for Screening Clients Who Want to Initiate Contraceptive Implants

To determine if the client is medically eligible to use implants, ask questions 1–6. As soon as the client answers **YES** to *any question*, stop, and follow the instructions after question 6.

NO	1. Have you ever been told you have breast cancer?	YES
NO	2. Do you currently have a blood clot in your legs or lungs?	YES
NO	3. Do you have a serious liver disease or jaundice (yellow skin or eyes)?	YES
NO	4. Have you ever been told that you have a rheumatic disease, such as lupus?	YES
NO	5. Do you have bleeding between menstrual periods, which is unusual for you, or bleeding after intercourse (sex)?	YES
NO	6. Are you currently breastfeeding a baby less than 6 weeks old?	YES

If the client answered **NO** to *all of questions 1–6*, she can use implants. Proceed to questions 7–12.

If the client answered **YES** to *question 1*, she is not a good candidate for implants. Counsel about other available methods or refer.

If the client answered **YES** to *any of questions 2–5*, implants cannot be initiated without further evaluation. Evaluate or refer as appropriate, and give condoms to use in the meantime. See explanations for more instructions.

If the client answered **YES** to *question 6*, instruct her to return for implant insertion as soon as possible after the baby is six weeks old.

Ask questions 7–12 to be reasonably sure that the client is not pregnant. As soon as the client answers **YES** to *any question*, stop, and follow the instructions after question 12.

YES	7. Did your last menstrual period start within the past 7 days?	NO
YES	8. Did you have a baby less than 6 months ago, are you fully or nearly-fully breastfeeding, and have you had no menstrual period since then?	NO
YES	9. Have you abstained from sexual intercourse since your last menstrual period or delivery?	NO
YES	10. Have you had a baby in the last 4 weeks?	NO
YES	11. Have you had a miscarriage or abortion in the last 7 days?	NO
YES	12. Have you been using a reliable contraceptive method consistently and correctly?	NO

If the client answered **YES** to *at least one of questions 7–12* and she is free of signs or symptoms of pregnancy, you can be reasonably sure that she is not pregnant. The client can have implants inserted now.

If the client began her last menstrual period *within the past 7 days (5 days for Implanon)*, she can have implants inserted now. No additional contraceptive protection is needed.

If the client began her last menstrual period *more than 7 days ago (5 days for Implanon)*, she can *have implants inserted now*, but instruct her that she must *use condoms or abstain from sex for the next 7 days*. Give her condoms to use for the next 7 days.

If the client answered **NO** to *all of questions 7–12*, pregnancy cannot be ruled out.

She must use a pregnancy test or wait until her next menstrual period to have implants inserted.

Give her condoms to use in the meantime.



## 7.9 Timing: When to Start Implants

<b>Woman's Situation</b>	<b>When to Start</b>
<b>Having menstrual cycles, or switching from non-hormonal method</b>	<p>Can start any time of month.</p> <p>If starting within 7 days after start of her monthly bleeding (menses), there is no need for a backup method.</p> <p>If more than 7 days after start of her monthly bleeding, any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days.</p>
<b>Switching from a hormonal method</b>	<p>Immediately, if she has been using the hormonal method consistently and correctly, or if it is otherwise reasonably certain she is not pregnant.</p> <p>If switching from injectables, she can have implants inserted when the repeat injection would have been given. No backup method is needed.</p>
<b>Fully breastfeeding Less than 6 months after giving birth</b>	<p>If menses has not returned, she can have implants inserted any time between 6 weeks and 6 months. No backup method is needed.</p> <p>If her menses has returned, she can have implants inserted as advised for women having menstrual cycles. (See above.)</p>
<b>Fully breastfeeding More than 6 months after giving birth</b>	<p>If her menses has not returned, she can have implants inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.</p> <p>If her menses has returned, she can have implants inserted as advised for women having menstrual cycles. (See above.)</p>
<b>Partially breastfeeding Less than 6 weeks after giving birth</b>	<p>Delay inserting implants until at least 6 weeks after she has given birth.</p>
<b>Partially breastfeeding More than 6 weeks after giving birth</b>	<p>If her menses has not returned, she can have implants inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.</p> <p>If her menses has returned, she can have implants inserted as advised for women having menstrual cycles. (See above.)</p>
<b>Not breastfeeding Less than 4 weeks after giving birth</b>	<p>She can have implants inserted at any time. No backup method is needed. (See above.)</p>
<b>Not breastfeeding More than 6 weeks after giving birth</b>	<p>If her menses has not returned, she can have implants inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.</p> <p>If her menses has returned, she can have implants inserted as advised for women having menstrual cycles.</p>

<b>Woman's Situation</b>	<b>When to Start</b>
<b>After abortion or miscarriage</b>	Immediately. There is no need for a backup method if implants are inserted within 7 days after first- or second-trimester miscarriage or abortion.  If it is more than 7 days after, client can have implants inserted at any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the insertion.
<b>After taking emergency contraceptive pills (ECPs)</b>	Implants 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 finished taking the ECPs to use until the implants are inserted.
<b>No monthly bleeding</b>	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.

## 7.10 Client Counselling and Instructions: Insertion

### Before insertion

- Explain the procedure to the client and show her the equipment that will be used. (See “Explaining the insertion procedure” below.)
- Encourage the client to ask questions.
- Tell her that she will feel a little discomfort for a few seconds when the local anaesthetic is injected but that the actual insertion of the implant capsules should be painless.

### Explaining the insertion procedure (Jadelle)

(**Note:** this description is a summary and not detailed instructions.)

1. The woman receives an injection of local anaesthetic 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.
2. The provider makes a small incision in the skin on the inside of the upper arm.
3. The provider inserts the implants just under the skin. The woman may feel some pressure or tugging.
4. After both implants are inserted, the provider closes the incision with an adhesive bandage. Stitches are not needed. The provider covers the incision with an adhesive bandage and wraps the arm with gauze.

### After insertion

- Tell the client to keep the bandage clean and dry for 4 days. (She should avoid bumping the area, carrying heavy loads, or applying unusual pressure to the site for 3-5 days.)
- She should leave the gauze (outer) bandage in place for 48 hours, and leave the adhesive bandage in place for 5 days (until the incision heals). After it heals, she can wash the incision area and touch it with normal pressure.



- After the anaesthetic 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.
- She can return after 5 days for a check-up in case of infection.
- If implants were inserted more than 7 days after the start of her monthly bleeding, tell her to use a backup method for the first 7 days after insertion.
- Certain drugs, such as the anti-TB drug rifampicin and anticonvulsant phenytoin (but not valproic acid) and griseofulvin, may reduce the effectiveness of implants.
- Implants do not provide protection against STIs, including HIV. Advise her to also use condoms, especially if either partner is at particular risk.
- She should return to the clinic or see another provider—before the implants start losing effectiveness (5 years)—for implant removal or replacement.
- Discuss how to remember the date to return.
- Give the 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
  - The date of implant insertion
  - The month and year when implants will need to be removed or replaced
  - Where to go if she has problems or questions with her implants.

<b>Implant Reminder Card</b>	
Client's name: _____	
Type of implant: _____	Lot number: _____
Date inserted: _____	
Month	Year
Remove or replace by: _____	
If you have any problems or questions, go to: _____	
(Name of facility and location)	

### 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 has a major change in health status; or thinks she might be pregnant.
- Also she should return if she has any of the warning signs of potential complications of implants (See Section 7.11).

## 7.11 Warning Signs of Complications

- Pain, heat, pus, or redness at the insertion site (signs of infection)
- A rod is visible coming out of the insertion site (expulsion of implant).

## 7.12 Client Counselling and Instructions: Removal

**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 the client must not be pressured or forced to continue using implants.

- Show her the equipment that will be used for the implant removal and explain what you will be doing.
- Encourage the client to ask questions.
- Tell her that she will feel a little discomfort for a few seconds when the local anaesthetic is injected but that the actual removal of the implant capsules should be painless.

### Explaining implant removal

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 anaesthetic 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 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.
6. If a woman wants new implants, the provider places the new implants below the site of the previous implants, or in the other arm.

## 7.13 Management of Implant Side Effects and Complications

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, provide treatment.

Side Effect	How to Manage
<b>Amenorrhoea</b>	<ul style="list-style-type: none"> <li>• Check for pregnancy. If 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. It is similar to not having monthly bleeding during pregnancy. She is not infertile. Blood is not building up inside her. Advise her to return to clinic if amenorrhoea continues to be a concern. Do not attempt to induce bleeding.</li> </ul>
<b>Spotting, irregular bleeding</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• For modest, short-term relief, she can take ibuprofen, 800 mg 3 times daily after meals for 5 days, beginning when irregular bleeding starts.</li> <li>• If ibuprofen doesn’t help, she can be given combined oral contraceptives (COCs) that have levonorgestrel. Ask her to take one pill daily for 21 days. Alternatively she can take 50 µg ethinyl estradiol daily for 21 days.</li> <li>• 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, Section 7.14.)</li> </ul>
<b>Heavy or prolonged bleeding</b> (Twice as much as usual or longer than 8 days)	<ul style="list-style-type: none"> <li>• Carefully review history and check haemoglobin, if possible. Check for gynaecological problem and treat appropriately.</li> <li>• 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.</li> <li>• For modest short-term relief, she can try one of the treatments for irregular bleeding, above, beginning when heavy bleeding starts. COCs with 50 µg of ethinyl estradiol may work better than lower-dose pills.</li> </ul>
<b>Breast tenderness</b>	<ul style="list-style-type: none"> <li>• Recommend that client wear a supportive bra (including during strenuous activity and sleep).</li> <li>• Try hot or cold compresses.</li> <li>• Suggest aspirin (300–600 mg), ibuprofen (200–400 mg), paracetamol (500–1000 mg), or other pain reliever.</li> </ul>
<b>Ordinary headaches</b> (nonmigrainous)	<ul style="list-style-type: none"> <li>• Suggest aspirin (300–600 mg), ibuprofen (200–400 mg), paracetamol (500–1000 mg), or other pain reliever.</li> <li>• Any headaches that get worse or occur more often during use of</li> </ul>

	implants should be evaluated.
<b>Weight change</b>	<ul style="list-style-type: none"> <li>• Review diet, and counsel as needed.</li> </ul>
<b>Acne</b>	<ul style="list-style-type: none"> <li>• If client wants to stop using implants because of acne, she can consider switching to COCs. Many women's acne improves with COC use.</li> </ul>
<b>Mild abdominal pain</b>	<ul style="list-style-type: none"> <li>• Suggest aspirin (300–600 mg), ibuprofen (200–400 mg), paracetamol (500–1000 mg), or other pain reliever.</li> </ul>
<b>Mood changes or changes in sex drive</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Clients who have serious mood changes, such as major depression, should be referred for care.</li> </ul>
<b>Pain after insertion or removal</b>	<ul style="list-style-type: none"> <li>• For pain after insertion, check that the bandage or gauze on her arm is not too tight.</li> <li>• Put a new bandage on the arm and advise her to avoid pressing on the site for a few days.</li> <li>• Give her aspirin (300–600 mg), ibuprofen (200–400 mg), paracetamol (500–1000 mg), or other pain reliever.</li> </ul>
<b>Infection at the insertion site</b> (redness, heat, pain, pus)	<ul style="list-style-type: none"> <li>• Do not remove the implants.</li> <li>• Clean the infected area with soap and water or antiseptic.</li> <li>• Give oral antibiotics for 7 to 10 days.</li> <li>• 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.</li> <li>• Expulsion or partial expulsion often follows infection. Ask the client to return if she notices an implant coming out.</li> </ul>
<b>Abscess</b>	<ul style="list-style-type: none"> <li>• Clean the area with antiseptic.</li> <li>• Cut open (incise) and drain the abscess.</li> <li>• Treat the wound.</li> <li>• Give oral antibiotics for 7 to 10 days.</li> </ul>
<b>Expulsion</b>	<ul style="list-style-type: none"> <li>• Rare. Usually occurs within a few months of insertion or with infection.</li> <li>• 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.</li> </ul>

## 7.14 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.
- If no cause of bleeding can be found, consider removing 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 IUCD).
- If bleeding is caused by a sexually transmitted infection or pelvic inflammatory disease, she can continue using implants during treatment.

#### **Migraine headaches**

- 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).**

- 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 foetus conceived while a woman has implants in place (see Question 5, Section 7.15).

## 7.15 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 contraceptive 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 the implants 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 foetus 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 foetus if a woman becomes pregnant while using them 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 or capsule 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 also experience a sudden change in bleeding pattern if her implants start coming out. 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. Do implants change women's mood or sex drive?**

Generally, no. Some women using implants report these complaints. The great majority of implant 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 implants or to other reasons. There is no evidence that implants affect women's sexual behaviour.

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

No. These women should know, however, that they need to have implants replaced sooner to maintain a high level of protection from pregnancy. In studies of Norplant, 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.

**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.

**11. When will Norplant implants no longer be available?**

The manufacturer intends to produce Norplant implants until 2011 and to replace Norplant with Jadelle. Jadelle is easier and faster to insert and remove because it has only 2 rods, compared with Norplant's 6 capsules. One study found that providers can easily switch from providing Norplant to providing Jadelle, and providers preferred the greater ease of inserting and removing Jadelle.

**12. 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.

**13. 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 in Unit 4, Family Planning Client Assessment and the WHO MEC). No condition that can be detected by a pelvic examination rules out the use of implants.

(WHO/RHR and CCP, INFO Project 2008)

## Contraceptive Implants Clinical Procedures

### Implant Insertion: Jadelle

#### Equipment and supplies

- An examination table for client
- Antiseptic solution
- 5 ml syringe
- Scalpel with #11 blade
- Sterile implant insertion set:
  - Tray for equipment
  - Surgical drapes (2)
  - Gloves (no talcum powder)
  - #10 trocar
  - Cotton swabs
  - Tweezers
  - Straight forceps
- Local anaesthetic (Lignocaine 1%) without epinephrine
- One set of implants
- Bandage
- Strapping



#### Infection prevention guidelines during implant insertion

Although insertion and removal of implants are minor surgical procedures, careful infection-prevention procedures must be followed with every client. Infection prevention during insertion and removal involves aseptic technique (performing the procedures under sterile conditions).

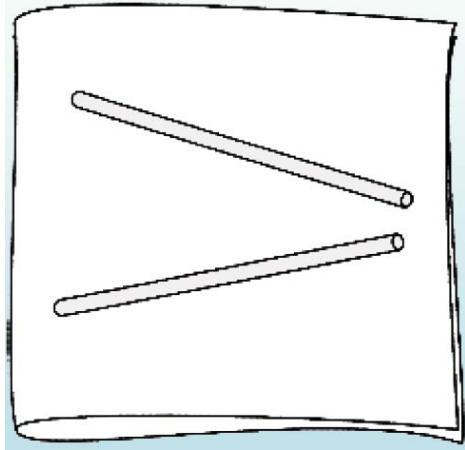
- To minimize risk of infection and/or expulsion, make sure that the ends of the rods nearest to the incision are not too close (not less than 5 mm) to the incision. If the tip of the rod protrudes from or is too close to the incision, it should be carefully removed and reinserted in the proper position.
- Also, to enable easy removal of both rods from a single incision, it is important that the ends of the rods closest to the incision are not farther apart, one from the next, than the width (not length) of one implant.
- While inserting the implants, do not remove the trocar from the incision. Keeping the trocar in place minimizes tissue trauma, decreases the chances of infection, and minimizes insertion time.



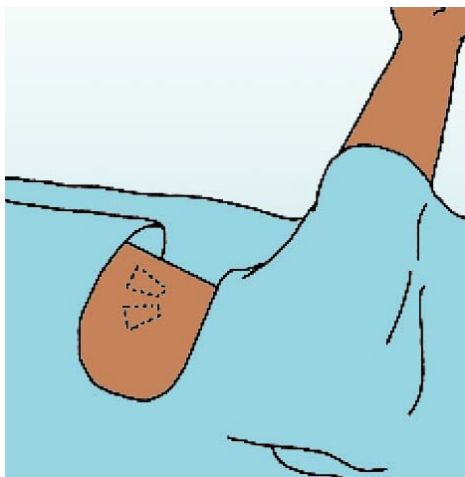


### Pre-insertion tasks

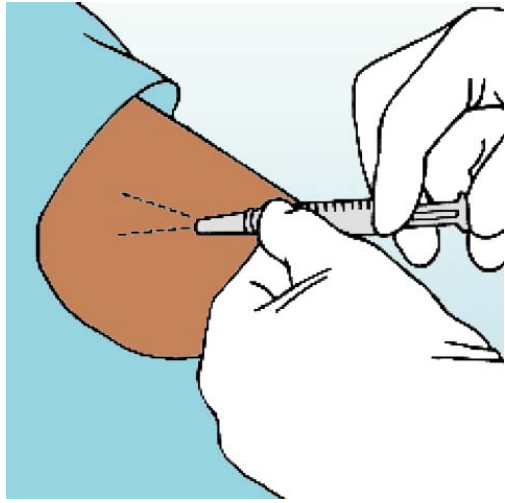
1. Have the client wash her entire arm and hand (the one she uses less often) with soap and water, and dry with clean towel or air-dry.
2. Help position the client on the table.
  - Have the patient lie on her back with her non-dominant arm flexed at the elbow and externally rotated.
  - The implants will be inserted subdermally and positioned in a “V” shape.



3. Determine that required sterile or high-level disinfected (HLD) instruments are present.
4. Open the sterile or HLD instrument pack without touching the instruments.
5. Open the sterile implants package by pulling apart the sheets of the pouch. Allow the 2 implants to fall onto a sterile drape.

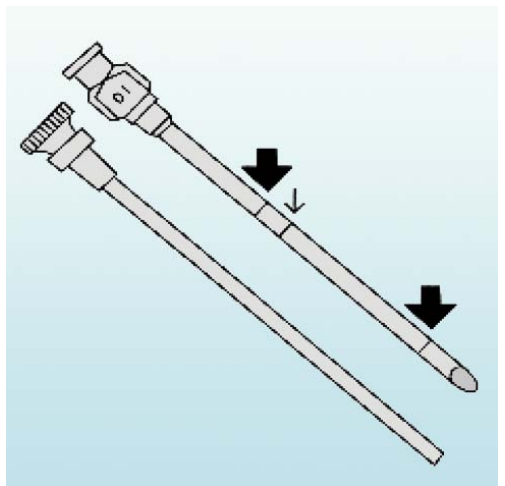


6. Wash hands thoroughly with antiseptic soap and dry. Put sterile gloves on both hands.
7. Clean the patient's upper arm with cotton or gauze swab soaked in antiseptic solution and held in a sterile or HLD forceps.
8. Frame the insertion area with a sterile drape that has an opening.

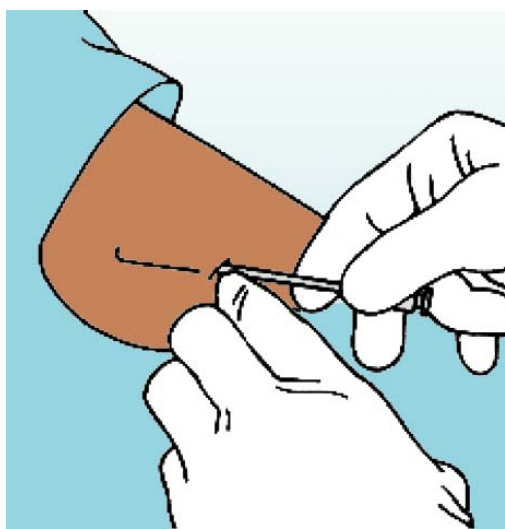


9. Fill a 5 ml syringe with the local anaesthetic (without epinephrine).
10. Insert the needle under the skin and inject a small amount of the anaesthetic.
11. Anaesthetize two areas about 4.5 cm long, to mimic the V shape of the implantation site.
12. Withdraw needle and place in a safe area to prevent accidental needle pricks.
13. Test incision site with tip of forceps for adequate anaesthesia. (If client feels pain, wait 2 minutes and retest incision site.)

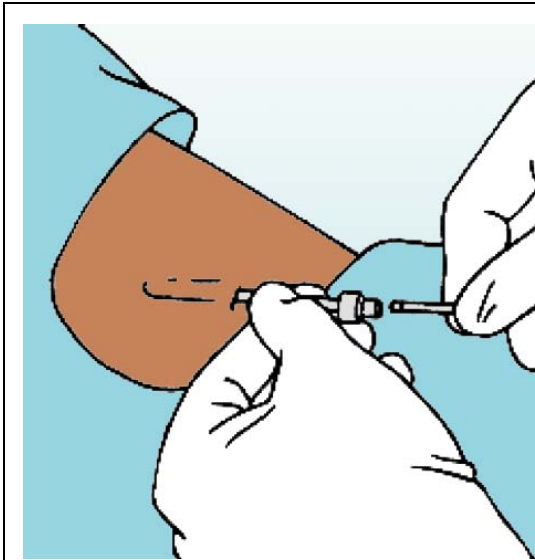
### Insertion procedure



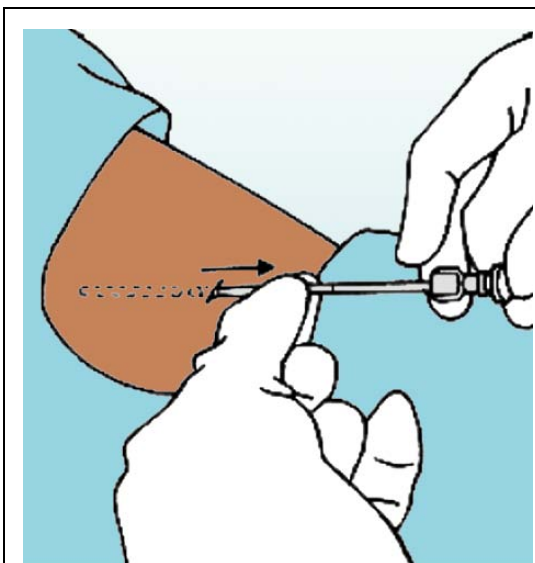
1. Use the scalpel to make a shallow, 2 mm skin incision at the insertion site.
- Note:** The trocar has 3 marks on it:
- The mark closest to the hub indicates how far the trocar should be introduced under the skin to place the Jadelle implants.
  - The middle mark is not used with Jadelle insertions.
  - The mark closest to the tip indicates how much of the trocar should remain under the skin following placement of the first implant.



2. Insert the tip of the trocar beneath the skin at a shallow angle with the bevel facing up.
3. Gently advance the trocar while lifting the skin; failure to do so may result in deep placement of the implants and could make removal more difficult.
4. Advance the trocar to the mark *nearest* the hub of the trocar.



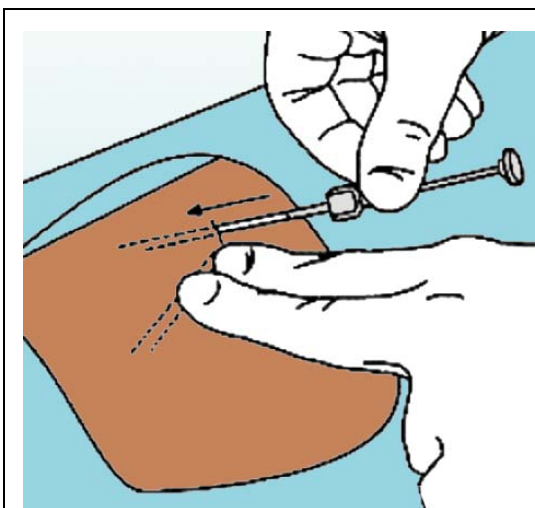
5. When the trocar has been inserted the appropriate distance, remove the plunger from the trocar and load the first implant into the trocar using the thumb and forefinger.
6. Reinsert the plunger and gently push implant towards the tip of the trocar until you feel resistance. Never force the plunger.



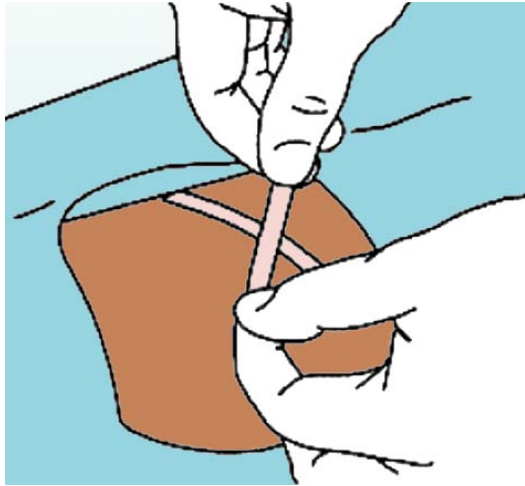
7. Holding the plunger stationary, *withdraw the trocar* to the mark closest to the trocar tip.
8. Keep the plunger stationary and do not push the implant into the tissue. (Do not completely remove the trocar from incision until both implants have been placed—withdraw only to the mark closest to its tip).

The implant should have been released under the skin when the mark closest to the tip of the trocar is visible at the insertion point.

9. Check release of the implant by palpation.
10. Load the second implant into the trocar and replace the plunger.



11. To place the second implant, align the trocar so that the second implant will be positioned at about a 30-degree angle relative to the first.
12. Fix the position of the previous implant with the forefinger and middle finger of the free hand, and advance the trocar along the tips of the fingers. (This will ensure a suitable distance between implants and keep the trocar from puncturing the previously inserted implant.)
13. Make sure that there is a distance of about 5 mm between the incision and the tips of the implants.
14. Remove the trocar from incision.



#### After insertion

1. After placement of the second implant, you may use sterile gauze to apply pressure briefly to the insertion site and ensure there is no bleeding.
  2. Palpate the distal ends of the implants to make sure that both have been properly placed.
  3. Press the edges of the incision together and close the incision with a skin closure.
  4. Remove the drape.
5. Cover the placement area with a dry compress. Wrap gauze around arm to ensure some pressure to control bleeding, but not so tight that it will cause pain and paleness in the arm.
  6. Observe the client for a few minutes for signs of bleeding from the insertion site before she is discharged.
  7. Flush needle and syringe with 0.5% chlorine solution 3 times and place in a puncture-resistant container.
  8. Before removing gloves, decontaminate the trocar, plunger, scalpel, and any other nondisposable instruments by soaking them in a 0.5% chlorine solution for 10 minutes.
  9. Dispose of contaminated objects (gauze, cotton, and other waste items) in a properly marked leak-proof container with a tight-fitting lid or in a plastic bag.
  10. If disposable gloves were used, immerse both gloved hands in a 0.5% chlorine solution. Carefully remove gloves by inverting and place in the waste container.
  11. Wash hands thoroughly with soap and water, and dry with clean paper towel or air dry.
  12. Complete client record, including drawing position of capsules.

Illustrations courtesy of FHI. Illustrations and procedure adapted from: Population Council. (no date). Norplant® II Levonorgestrel Implants (Jadelle®). NDA 20-544, Supplement 003. [http://www.popcouncil.org/pdfs/licensing/20544se2-003\\_jadelle\\_lbl.pdf](http://www.popcouncil.org/pdfs/licensing/20544se2-003_jadelle_lbl.pdf) (accessed April 24, 2010)

# Implant Removal

## Equipment and supplies

- An examining table for the patient
- Antiseptic solution (Lignocaine 1%)
- 5 ml syringe
- Local anesthetic
- Sterile implants removal set
  - Sterile tray for equipment
  - Sterile surgical cloths (2)
  - 2 curved mosquito forceps
  - Cotton swabs, cotton gauze
  - Sterile gloves (free of talcum powder)
  - Scalpel with #11 blade; scissors

## Removal procedure (Jadelle)

1. Assemble required instruments.
2. Palpate the area to locate both implants.
3. Clean the patient's upper arm with antiseptic solution and frame the area with a drape that has an opening.
4. Apply a small amount of local anaesthetic to the skin and under the ends of the implants. This will raise the ends of the implants.
5. Make a 4-mm incision with the scalpel close to the proximal ends of the implants (below the bottom of the "V"). Do not make a large incision.
6. Push each implant gently towards the incision with your fingers.
7. When the tip is visible or near to the incision, grasp it with mosquito forceps.
8. Use the scalpel, the other forceps, or gauze to very gently open the tissue sheath that has formed around the implant.
9. Grasp the proximal end of the implant with the second forceps and gently remove it. Repeat the procedure for the second implant. (For Norplant removal: repeat the procedure for each of the remaining 5 capsules.)
10. After the procedure is completed, close the incision, and cover with sterile gauze and a bandage.
  - The upper arm should be kept dry for a few days.
  - If the woman wants to keep using this method, insert a new set of implants through the same incision.
  - If the woman does not wish to continue using contraceptive implants and does not want to become pregnant, recommend another contraceptive method.

## Hormonal Implants:

### New, Improved, and Popular When Available

By Roy Jacobstein and John M. Pile, January 2008

- Hormonal implants are an excellent contraceptive option for women at all phases of their reproductive lives, whether they want to delay, space, or limit births.
- Though implants are the most costly contraceptive method, their availability in programs can reduce demand on other health services because of their high effectiveness and continuation rates.

#### Method-Specific Characteristics and Considerations

**Effectiveness:** Hormonal implants are highly effective, comparable to IUDs, female sterilisation, and vasectomy. The risk of failure (pregnancy) in the first year of use is 0.05% (for every 2,000 women using implants, 1,999 do not become pregnant in the first year). Overall, in 5 years of Jadelle use, 1 pregnancy occurs per 100 users. Sino-Implant (II) and Implanon have similar rates of effectiveness.

**Mechanism of Action:** Implants release a small amount of progestin steadily into the blood. The hormone prevents pregnancy mainly by inhibiting ovulation and by increasing the thickness of cervical mucus, which makes sperm penetration more difficult.

**Convenience:** Implants can be quickly inserted (in less than 5 minutes) and removed (in less than 10 minutes), without a pelvic exam and without any blood tests or other routine laboratory tests. Implants can be inserted at any time during a woman's menstrual cycle, so long as it is reasonably certain that she is not pregnant. No routine follow-up or other action by the client is needed once the implants are in place. Implants can be removed whenever a woman wishes to have them removed.

**Return to Fertility:** There is no delay in return to fertility upon removal of implants.

**Safety:** Implants are very safe. Complications are uncommon but may include infection at the insertion site (3–7% of insertions), expulsion (extremely rare), and difficult removal.

**Side Effects:** Changes in bleeding patterns are relatively common and may vary throughout the duration of use, although many bleeding disturbances diminish with continued use. Typical changes include lighter bleeding, fewer days of bleeding, irregular bleeding that lasts more than 8 days, infrequent bleeding, and no monthly bleeding. Other minor symptoms that may arise (in fewer than 20–30% of clients) include headache, mild abdominal pain, acne, weight change, breast tenderness, dizziness, mood changes, and nausea. Alerting clients to these possible side effects and discussing their management is an important aspect of counselling.

**HIV/AIDS:** Implants, like other hormonal contraceptives, do not protect against HIV (or other sexually transmitted infections). Women who are HIV-positive or who have AIDS, whether or not they are being treated with antiretroviral drugs, can use implants.

**Eligibility:** Nearly all women can use implants, including those of any age, those who have or have not had children, and those who are married or unmarried. Implants are suitable both for women who wish to space births and for those who wish to limit births. Implants can be inserted in women who have just had an abortion or a miscarriage, and in those who are breastfeeding (starting 6 weeks after childbirth).

## Service Program Considerations

**Availability and Use:** Because of their effectiveness and convenience, when implants are made available in family planning programs, they are popular, and demand for them appears high. More than 1% of women in union use implants in Burkina Faso, Ghana, Haiti, Indonesia, and Kenya, and in urban areas of Malawi, Nepal, Senegal, Uganda, and Zimbabwe.

**Counselling and Continuation:** Implant users discontinue use at much lower rates than do users of IUCDs and injectables. Women who experience menstrual disturbances are more likely to discontinue implant use. Thus, effective counselling needs to focus on the practical management of side effects and on the provision of reassurance that common changes in bleeding patterns and that side effects such as headaches, mild abdominal pain, and breast tenderness are easily treated and usually transient. This is critical to ensuring that women make appropriate, informed choices and also helps enhance continued method use. It is important as well to assure a woman that she can come back at any time she wants, for advice, treatment, or removal of the implant.

**Cost:** The one factor that limits more widespread use of implants in family planning programs is their relatively high commodity cost, though initial costs have been coming down. In programs supported by the U.S. Agency for International Development, the method costs around \$21 per implant (for Jadelle). Sino-Implant (II) is expected to cost \$5–\$8 if it is approved for use beyond China and Indonesia. Also, cost has many dimensions, and the ability of implants to prevent unintended pregnancies is another important cost consideration for programs. A simulation model using data from Kenya estimated that if 100,000 users of oral contraceptives switched to using implants, 26,000 unintended pregnancies would be prevented over 5 years, reducing attendant program costs and workloads, and health risks to women.

**Provider Cadres:** A number of cadres of health professionals, including nurses, nurse-midwives, clinical officers, and physicians, can safely provide implants. After 600 nurses were trained in Ghana and commodities were made available, 88,000 women chose Norplant, and the prevalence of implant use rose more than 10-fold, from 0.1% in 1998 to 1.2% in 2006.

**Service Provision:** Implants must be provided by well-trained and well-supervised providers in properly equipped and regularly supplied health facilities where attention is given to good surgical technique, infection prevention, and counselling. The fundamentals of care—safety, quality, and informed choice—must be ensured. There should be reliable access to both insertion and removal services, with no unjustified policy or practice barriers to provision (such as age and parity restrictions, marriage requirements, spousal or parental consent requirements, and/or provider bias), and no barriers to removal.

*Sources (as cited by authors):*

Johns Hopkins Bloomberg School of Public Health. 2007. Implants: the next generation. Population Reports Series K, no. 11. Baltimore: CCP

World Health Organization/Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communications Programs (CCP), Knowledge for Health Project. *Family Planning: A Global Handbook for Providers (2008 update)*. Baltimore and Geneva: CCP and WHO/RHR. <http://info.k4health.org/globalhandbook/>

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*This handout was adapted with permission of EngenderHealth from Jacobstein, Roy and John M. Pile 2008. © 2008 The ACQUIRE Project/EngenderHealth.*

# Contraceptive Implants Case Studies

## Case Study 1

Emma is 17 years old. She gave birth to a full-term stillborn baby 3 weeks ago, and she has not been sexually active since that time. Emma wants to start using a family planning method. She has heard about implants and wants something long-lasting. Emma is not sure of the identity of the baby's father.

1. Is Emma eligible to use implants?
2. When can she start the method?
3. Is there any additional information that should be given to the client?

## Case Study 2

Mrs. Banda is a recent widow who is 45 years old. She has used implants since she was 35, after the birth of her sixth child. Mrs. Banda is not sexually active. When she had her first implants removed, Mrs. Banda had an infection that was very painful. She is scared that the same thing might happen if the second implants are removed.

1. Should the provider insist on removing the expired implants?

## Case Study 3

Lilian is a 28-year-old mother of 4 children who had implants inserted 5 months ago. Since then she has been experiencing irregular bleeding. She finds this worrisome and comes back to find out what is wrong.

1. What information would you give to Lilian? What short-term treatment could you suggest?
2. If this treatment does not work, what would be your next step?



# Contraceptive Implants Case Studies Answer Key

## Case Study 1

Emma is 17 years old. She gave birth to a full-term stillborn baby 3 weeks ago and, she has not been sexually active since that time. Emma wants to start using a family planning method. She has heard about implants and wants something long-lasting. Emma is not sure of the identity of the baby's father.

1. Is Emma eligible to use implants?

**Yes. (MEC category 1)**

2. When can she start the method?

**She can have implants inserted at any time. No backup method is needed.**

3. Is there any additional information that should be given to the client?

**She should be advised that implants do not protect against STI/HIV, and she should be encouraged to use male or female condoms.**

## Case Study 2

Mrs. Banda is a recent widow who is 45 years old. She has used implants since she was 35, after the birth of her sixth child. Mrs. Banda is not currently sexually active. When her first implants were removed, she had an infection that was very painful. She is scared that the same thing might happen when the second implants are removed.

1. Should the provider insist on removing the expired implants?

**Even though it is not recommended to leave implants in beyond their effective lifespan, they are not dangerous. Since Mrs. Banda is currently not at risk of pregnancy she could choose to leave them in.**

## Case Study 3

Lilian is a 28-year-old mother of 4 children who had implants inserted 5 months ago. Since then she has been experiencing irregular bleeding. She finds this worrisome and comes back to find out what is wrong.

1. What information would you give to Lilian? What short-term treatment could you suggest?

**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 ibuprofen, 800 mg 3 times daily after meals for 5 days, beginning when irregular bleeding starts.**

2. If this treatment does not work, what would be your next step?

**If ibuprofen doesn't help, she can be given COCs (with levonorgestrel). Ask her to take 1 pill daily for 21 days. Or, she could be given 50 µg ethinyl estradiol to take 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" Section 7.14.)**

# Implants Role Plays

## Role Play 1

### **Situation**

Mrs. Kaliya received Jadelle implants 6 months ago. Since that time she has heard from one friend that implants are dangerous because they can move around in the body and could get stuck in an organ. She has also heard that implants cause birth defects. Mrs. Kaliya wants to have more children in a couple of years, and what she has heard has scared her. She has come to the clinic to have her implants removed.

### **Observer(s)**

1. What counselling skills does the provider use to handle the situation? How could the communication be improved?
2. Does the provider encourage the client to express concerns, ask questions, and explain needs?
3. Does the provider give accurate, concise information?
4. Does the provider let the client make the decision?

## Role Play 2

### **Situation**

Margaret is a 21-year-old client with no children. She is a student who will be leaving soon for South Africa to do graduate studies for 2 years. Margaret had implants inserted 6 months ago. For the last 2 months she has had no bleeding. This worries her, especially since she is about to leave the country, and a pregnancy would jeopardize her studies.

### **Observer(s)**

1. What counselling skills does the provider use to handle the situation? How could the communication be improved?
2. Does the provider encourage the client to express concerns, ask questions, and explain needs?
3. Does the provider give accurate, concise information?

# Contraceptive Implants Quiz Questions

**Questions 1–10 :** Indicate whether the following statements are **true** or **false** by writing a **“T”** for true or an **“F”** for false in the space provided before each statement.

- \_\_\_1. Contraceptive implants are thin capsules that release oestrogen through the wall of the capsules in a continuous low dose.
- \_\_\_2. Jadelle is a type of contraceptive implant currently available in Malawi.
- \_\_\_3. Contraceptive implants are one of the most effective, reversible, and long-lasting methods.
- \_\_\_4. A common complication of implants is an infection at the insertion site.
- \_\_\_5. Implants substantially reduce the risk of ectopic pregnancy.
- \_\_\_6. The hormones from the implants remain in the woman’s body after the capsules have been removed.
- \_\_\_7. Women who smoke cigarettes may not use implants.
- \_\_\_8. Women who have not had children should not use implants because they may become infertile.
- \_\_\_9. Implants may decrease menstrual cramps and bleeding.
- \_\_\_10. If implants were inserted more than 7 days after the start of a client’s monthly bleeding, a client should use a backup method of contraception for the next 7 days.

**Questions 11–14:** Circle the letter next to the answer that best responds to the statements or questions below.

- 11. Implants work primarily by:
  - a. Preventing release of eggs from the ovaries
  - b. Thickening cervical mucus, which prevents sperm from meeting an egg
  - c. Thinning the endometrial lining, preventing implantation
  - d. All of the above
  - e. None of the above
- 12. Women who should not use implants include those with the following conditions:
  - a. Unexplained, unusual vaginal bleeding
  - b. Anaemia
  - c. Are infected with HIV
  - d. All of the above
  - e. None of the above
- 13. The following test(s) are necessary for a woman to access implants:
  - a. Pelvic exam
  - b. Cervical cancer screening
  - c. Breast exam
  - d. All of the above
  - e. None of the above

14. Breastfeeding women should wait at least how long before initiating use of a contraceptive implant?
- No delay is necessary; implants may be inserted immediately after delivery.
  - 1 week
  - 6 weeks
  - 6 months

**Short answer.** Provide short answers for the following questions.

15. List 2 advantages of implants:

16. List 2 disadvantages of implants:

17. List 3 side effects reported for implants:

18. What are the 4 steps, in order, of the insertion procedure (Jadelle) that should be explained to the client?

- 1.
- 2.
- 3.
- 4.

19. List 2 warning signs of complications for implants:

## Contraceptive Implants Quiz Questions Answer Key

- F\_\_1.** Contraceptive implants are thin capsules that release oestrogen through the wall of the capsules in a continuous low dose.
- T\_\_2.** Jadelle is a type of contraceptive implant currently available in Malawi.
- T\_\_3.** Contraceptive implants are one of the most effective, reversible, and long-lasting methods.
- F\_\_4.** A common complication of implants is an infection at the insertion site.
- T\_\_5.** Implants substantially reduce the risk of ectopic pregnancy.
- F\_\_6.** The hormones from the implants remain in the woman's body after the capsules have been removed.
- F\_\_7.** Women who smoke cigarettes may not use implants.
- F\_\_8.** Women who have not had children should not use implants because they may become infertile.
- T\_\_9.** Implants may decrease menstrual cramps and bleeding.
- T\_\_10.** If implants were inserted more than 7 days after the start of a client's monthly bleeding, a client should use a backup method of contraception for the next 7 days.
11. Implants work primarily by:  
**d. All of the above**
12. Women who should not use implants include those with the following conditions:  
**a. Unexplained, unusual vaginal bleeding**
13. The following test(s) are necessary for a woman to access implants:  
**e. None of the above**
14. Breastfeeding women should wait at least how long before initiating use of a contraceptive implant?  
**c. 6 weeks**
15. List 2 advantages of implants:  
**Any 2 of the following:**
- **Highly effective**
  - **Long-term effectiveness**
  - **Do not interfere with intercourse**
  - **Rapid return to fertility**
  - **Require no further activity by user after insertion**
  - **Can be provided by trained non-physicians**

16. List 2 disadvantages of implants:

**Any 2 of the following:**

- **Insertion and removal requires minor surgical procedure by trained provider.**
- **Certain medicines may make implants less effective.**
- **They do not protect against STIs, including HIV.**

17. List 3 side effects reported for implants:

**Any 3 of the following:**

- **Changes in vaginal bleeding pattern**
- **Headaches**
- **Abdominal pain**
- **Acne**
- **Weight change**
- **Breast tenderness**
- **Dizziness, nausea**
- **Mood changes**
- **Enlarged ovarian follicles**

18. What are the 4 steps, in order, of the insertion procedure (Jadelle) that should be explained to the client?

1. **The woman receives an injection of local anaesthetic.**
2. **The provider makes a small incision in the skin on the inside of the upper arm.**
3. **The provider inserts the implants just under the skin.**
4. **After the implants are inserted, the provider closes the incision with an adhesive bandage. No stitches are needed.**

19. List 2 warning signs of complications for implants:

- **Pain, redness, heat or pus at the incision site (sign of infection)**
- **Woman can see rod or capsule coming out of incision (expulsion of implant)**

# Learning Guide for Implants Clinical Skills: Insertion

(to be used by student)

Student's Name: \_\_\_\_\_ Dates: \_\_\_\_\_

**Instructions: Rate the performance of each task/activity observed using the following rating scale.**

1. **Needs Improvement:** Step not performed correctly or in sequence (if necessary) or is omitted
2. **Competently Performed:** Step performed correctly in proper sequence (if necessary) but participant not progressing from step to step efficiently
3. **Proficiently Performed:** Step efficiently and precisely performed in the proper sequence (if necessary)

**N/O Not Observed**

Learning Guide for Implants Clinical Skills: Insertion					
Task/Activity	Cases				
PRE-INSERTION COUNSELLING					
1. Greet client respectfully.					
2. Introduce yourself to client.					
3. Review client using screening checklist and further evaluate client, if indicated.					
4. Tell client what is going to be done and encourage her to ask questions.					
5. Ask about allergies to antiseptic solution and lignocaine for local anaesthetic					
6. Counsel the client on: <ul style="list-style-type: none"> <li>• Mechanisms of action</li> <li>• Duration of action of the implant</li> <li>• Benefits of the method</li> <li>• Site of insertion</li> <li>• Side effects and their management</li> <li>• Warning signs.</li> </ul>					
PRE-INSERTION TASKS					
1. Have the client wash her entire arm and hand (the one she uses less often) with soap and water, and dry with a clean towel or air dry.					
2 Help position client on table. <ul style="list-style-type: none"> <li>• Ask the client to lie on her back with her non-dominant arm flexed at the elbow and externally rotated.</li> <li>• Using template, mark position on arm for insertion of the 2 capsules (this should form a "V" open toward the shoulder).</li> </ul>					
3. Check that required sterile or high-level disinfected (HLD)					

## Learning Guide for Implants Clinical Skills: Insertion

Task/Activity	Cases				
instruments are present.					
4. Open sterile or high-level disinfected instrument pack without touching instruments.					
5. Open sterile implants package by pulling apart sheets of the pouch. Allow the 2 implants to fall onto a sterile drape.					
6. Wash hands thoroughly with antiseptic soap and water, and dry with clean, disposable paper towel or air dry. Put sterile gloves on both hands.					
7. Clean the patient's upper arm with cotton or gauze swab soaked in antiseptic solution and held in a sterile or HLD forceps.					
8. Frame the insertion area with a sterile surgical drape that has an opening.					
9. Fill a 5 ml sterile syringe with the local anaesthetic (without epinephrine).					
10. Insert the needle under the skin and inject a small amount of the anaesthetic.					
11. Anaesthetize 2 areas about 4.5 cm long to mimic the V shape of the implantation site.					
12. Withdraw needle and place in a safe area to prevent accidental needle pricks.					
13. Test incision site with tip of forceps for adequate anaesthesia. (If client feels pain, wait 2 minutes and retest incision site).					
<b>INSERTION PROCEDURE</b>					
1. Make a shallow, 2 mm incision with a scalpel just through the skin at insertion site.					
2. Insert trocar and plunger through the incision at a shallow angle beneath the skin with the bevel facing up.					
3. Slowly and smoothly advance trocar while lifting the skin and plunger towards mark (1) nearest the hub on the trocar.					
4. Advance the trocar to the mark <i>nearest</i> the hub of the trocar.					
5. When the trocar has been inserted the appropriate distance, remove plunger from the trocar and load the first implant into the trocar using the thumb and forefinger.					
6. Reinsert plunger and gently push implant towards the tip of the trocar until resistance is felt. Do not force the plunger.					
7. Holding the plunger stationary, withdraw the trocar out of incision to the mark closest to the trocar tip.					
8. Keep the plunger stationary and do not push the implant into the tissue. (Do not remove trocar from incision until both implants have been placed.)					
9. Check release of the implant by palpation.					
10. Load the second implant into the trocar and replace the plunger.					



## Learning Guide for Implants Clinical Skills: Insertion

Task/Activity	Cases				
11. To place the second implant, align the trocar so that the second implant will be positioned at about a 30 degree angle relative to the first.					
12. Fix the position of the previous implant with the forefinger and middle finger of the free hand, and advance the trocar along the tips of the fingers.					
13. Make sure that there is a distance of about 5 mm between the incision and the tips of the implants.					
14. Remove the trocar from the incision.					
<b>POST-INSERTION TASKS</b>					
1. After placing the second implant, use sterile gauze to apply pressure briefly to the insertion site and ensure there is no bleeding.					
2. Palpate the distal ends of the implants to make sure that both have been properly placed.					
3. Bring edges of incision together and close the incision with a skin closure.					
4. Remove the drape.					
5. Cover the insertion area with a dry compress. Wrap gauze bandage firmly around the arm to ensure some pressure to control bleeding and minimize bruising but not so tight that it will cause pain and paleness in the arm.					
6. Observe the client for a few minutes for signs of bleeding from the insertion site before she is discharged.					
7. Flush needle and syringe with 0.5% chlorine solution 3 times, and place in puncture-proof container.					
8. Before removing gloves, place all instruments in 0.5% chlorine solution for 10 minutes for decontamination, separating the plunger from the trocar.					
9. Dispose of waste materials by placing in a leak-proof container.					
10. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning inside out and place in leak-proof waste container or plastic bag.					
11. Wash hands thoroughly with soap and water, and dry with clean, disposable paper towel or air dry.					
12. Complete client record, including drawing position of implants.					
<b>POST-INSERTION COUNSELLING</b>					
1. Instruct client regarding wound care, and make return visit appointment, if needed.					
2. Discuss what to do if client experiences any problems or side effects following insertion.					
3. Ask client to repeat instructions.					
4. Answer client's questions.					

# Learning Guide for Implants Clinical Skills: Removal

(to be used by student)

Student's Name: \_\_\_\_\_ Dates: \_\_\_\_\_

**Instructions: Rate the performance of each task/activity observed using the following rating scale.**

1. **Needs Improvement:** Step not performed correctly or in sequence (if necessary) or is omitted
2. **Competently Performed:** Step performed correctly in proper sequence (if necessary) but participant not progressing from step to step efficiently
3. **Proficiently Performed:** Step efficiently and precisely performed in the proper sequence (if necessary)

**N/O Not Observed**

Learning Guide for Implants Clinical Skills: Removal					
Task/Activity	Cases				
PRE-REMOVAL COUNSELLING					
1. Greet client respectfully.					
2. Introduce yourself to client.					
3. Tell client what is going to be done and encourage her to ask questions.					
4. Ask about allergies to antiseptic solution and lignocaine for local anaesthetic.					
REMOVAL TASKS					
1. Assemble required instruments.					
2. Palpate the area to locate both implants.					
3. Clean the patient's upper arm with antiseptic solution, and frame the area with a drape that has an opening.					
4. Apply a small amount of local anesthetic to the skin and under the ends of the implants. This will raise the ends of the implants.					
5. Make a 4 mm incision with the scalpel close to the proximal ends of the implants (below the bottom of the "V"). Do not make a large incision.					
6. Push each implant gently towards the incision with your fingers.					
7. When the tip is visible or near to the incision, grasp it with mosquito forceps.					
8. Use the scalpel, the other forceps, or gauze to very gently open the tissue sheath that has formed around the implant.					
9. Grasp the proximal end of the implant with the second forceps					

## Learning Guide for Implants Clinical Skills: Removal

Task/Activity	Cases				
and gently remove it. Repeat the procedure for the second implant. (For Norplant removal: repeat the procedure for each of the remaining 5 capsules.)					
<p>10. After the procedure is completed, close the incision, and cover with sterile gauze and a bandage.</p> <ul style="list-style-type: none"> <li>• The upper arm should be kept dry for a few days.</li> <li>• If the woman wants to keep using this method, insert a new set of implants through the same incision.</li> <li>• If the woman does not wish to continue using contraceptive implants and does not want to become pregnant, you should recommend another contraceptive method.</li> </ul>					

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