

# Progestin-Only Injectables

## Key Points for Providers and Clients

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

## What Are Progestin-Only Injectables?

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



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

## How Effective?

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

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

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

*Protection against sexually transmitted infections (STIs):* None



# Side Effects, Health Benefits, and Health Risks

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

Some users report the following:

- Changes in bleeding patterns including, with DMPA:
  - First 3 months:
    - Irregular bleeding
    - Prolonged bleeding
  - At one year:
    - No monthly bleeding
    - Infrequent bleeding
    - Irregular bleeding
- NET-EN affects bleeding patterns less than DMPA. NET-EN users have fewer days of bleeding in the first 6 months and are less likely to have no monthly bleeding after one year than DMPA users.
- Weight gain (see Question 4, p. 78)
- Headaches
- Dizziness
- Abdominal bloating and discomfort
- Mood changes
- Less sex drive



Other possible physical changes:

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

### Why Some Women Say They Like Progestin-Only Injectables

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

## Known Health Benefits

### DMPA

Helps protect against:

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

May help protect against:

- Symptomatic pelvic inflammatory disease
- Iron-deficiency anemia

Reduces:

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

### NET-EN

Helps protect against:

- Risks of pregnancy
- Iron-deficiency anemia

## Known Health Risks

None

None

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

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

Progestin-only injectables:

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

## Delivering injectable contraception in the community

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

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

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

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

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

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

### **New formulation of DMPA**

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



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

## Who Can and Cannot Use Progestin-Only Injectables

### Safe and Suitable for Nearly All Women

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

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

Women can begin using progestin-only injectables:

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

## Medical Eligibility Criteria for

# Progestin-Only Injectables

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

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

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

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

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

### 3. Do you have high blood pressure?

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

Check her blood pressure if possible:

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

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

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

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*Medical Eligibility Criteria for Progestin-Only Injectables (continued)*

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

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

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

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

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

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

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

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

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

## Using Clinical Judgment in Special Cases

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

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

## Progestin-Only Injectables for Women With HIV

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

# Providing Progestin-Only Injectables

## When to Start

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

Woman's situation	When to start
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<b>Having menstrual cycles or switching from a nonhormonal method</b>	
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	<b>Any time of the month</b>
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- If she is starting within 7 days after the start of her monthly bleeding, no need for a backup method.
- If it is more than 7 days after the start of her monthly bleeding, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method\* for the first 7 days after the injection.
- If she is switching from an IUD, she can start injectables immediately (see Copper-Bearing IUD, Switching From an IUD to Another Method, p. 148).

<b>Switching from a hormonal method</b>	
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- Immediately, if she has been using the hormonal method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method.
  - If she is switching from another injectable, she can have the new injectable when the repeat injection would have been given. No need for a backup method.
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\* Backup methods include abstinence, male and female condoms, spermicides, and withdrawal. Tell her that spermicides and withdrawal are the least effective contraceptive methods. If possible, give her condoms.

## Woman's situation    When to start

### Fully or nearly fully breastfeeding

Less than 6 months after giving birth	<ul style="list-style-type: none"> <li>• If she gave birth less than 6 weeks ago, delay her first injection until at least 6 weeks after giving birth. (See p. 129, Q&amp;A 8.)</li> <li>• If her monthly bleeding has not returned, she can start injectables any time between 6 weeks and 6 months. No need for a backup method.</li> <li>• If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).</li> </ul>
More than 6 months after giving birth	<ul style="list-style-type: none"> <li>• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.</li> <li>• If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).</li> </ul>

### Partially breastfeeding

Less than 6 weeks after giving birth	<ul style="list-style-type: none"> <li>• Delay her first injection until at least 6 weeks after giving birth. (See p. 129, Q&amp;A 8.)</li> </ul>
More than 6 weeks after giving birth	<ul style="list-style-type: none"> <li>• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.<sup>†</sup> She will need a backup method for the first 7 days after the injection.</li> <li>• If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see previous page).</li> </ul>

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

## Woman's situation    When to start

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### Not breastfeeding

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|--------------------------------------|--|
| Less than 4 weeks after giving birth | <ul style="list-style-type: none"><li>• She can start injectables at any time. No need for a backup method.</li></ul>  |
| More than 4 weeks after giving birth | <ul style="list-style-type: none"><li>• If her monthly bleeding has not returned, she can start injectables any time it is reasonably certain she is not pregnant.<sup>†</sup> She will need a backup method for the first 7 days after the injection.</li><li>• If her monthly bleeding has returned, she can start injectables as advised for women having menstrual cycles (see p. 68).</li></ul> |
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### No monthly bleeding (not related to childbirth or breastfeeding)

- She can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
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### After miscarriage or abortion

- Immediately. If she is starting within 7 days after first- or second-trimester miscarriage or abortion, no need for a backup method.
  - If it is more than 7 days after first- or second-trimester miscarriage or abortion, she can start injectables any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after the injection.
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### After taking emergency contraceptive pills (ECPs)

- She can start injectables on the same day as the ECPs, or if preferred, within 7 days after the start of her monthly bleeding. She will need a backup method for the first 7 days after the injection. She should return if she has signs or symptoms of pregnancy other than not having monthly bleeding (see p. 371 for common signs and symptoms of pregnancy).
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<sup>†</sup> Where a visit 6 weeks after childbirth is routinely recommended and other opportunities to obtain contraception limited, some providers and programs may give the first injection at the 6-week visit, without further evidence that the woman is not pregnant, if her monthly bleeding has not yet returned.

## Giving Advice on Side Effects

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

### Describe the most common side effects

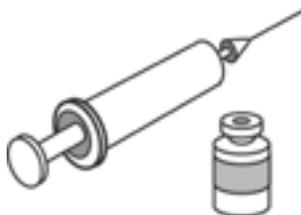
- For the first several months, irregular bleeding, prolonged bleeding, frequent bleeding. Later, no monthly bleeding.
- Weight gain (about 1–2 kg per year), headaches, dizziness, and possibly other side effects.

### Explain about these side effects

- Side effects are not signs of illness.
- Common, but some women do not have them.
- The client can come back for help if side effects bother her.

## Giving the Injection

### 1. Obtain one dose of injectable, needle, and syringe



- DMPA: 150 mg for injections into the muscle (intramuscular injection). NET-EN: 200 mg for injections into the muscle.
- If possible, use single-dose vials. Check expiration date. If using an open multidose vial, check that the vial is not leaking.
- DMPA: A 2 ml syringe and a 21–23 gauge intramuscular needle.
- NET-EN: A 2 or 5 ml syringe and a 19-gauge intramuscular needle. A narrower needle (21–23 gauge) also can be used.
- For each injection use a disposable auto-disable syringe and needle from a new, sealed package (within expiration date and not damaged), if available.

### 2. Wash

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

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### 3. Prepare vial

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

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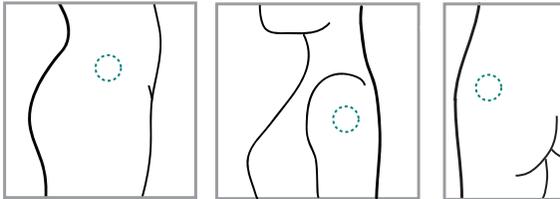
### 4. Fill syringe

- Pierce top of vial with sterile needle and fill syringe with proper dose.

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### 5. Inject formula

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



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### 6. Dispose of disposable syringes and needles safely

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



## Supporting the User

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### Give specific instructions

- Tell her not to massage the injection site.
  - Tell the client the name of the injection and agree on a date for her next injection.
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### **“Come Back Any Time”: Reasons to Return Before the Next Injection**

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

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

### **Planning the Next Injection**

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

# Helping Continuing Users

## Repeat Injection Visits

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

## Managing Late Injections

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

She will need a backup method for the first 7 days after the injection.

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

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

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

## Managing Any Problems

### *Problems Reported as Side Effects*

May or may not be due to the method.

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

### No monthly bleeding

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

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

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

### Weight gain

- Review diet and counsel as needed.

### Abdominal bloating and discomfort

- Consider locally available remedies.

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

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

### **Ordinary headaches (nonmigrainous)**

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

### **Mood changes or changes in sex drive**

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

### **Dizziness**

- Consider locally available remedies.

## New Problems That May Require Switching Methods

May or may not be due to the method.

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

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

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

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

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

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

### Suspected pregnancy

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

# Questions and Answers About Progestin-Only Injectables

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

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

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

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

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

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

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

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

## 5. Do DMPA and NET-EN cause abortion?

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

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

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

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

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

## 8. Does DMPA cause cancer?

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

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

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

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

## **10. How does DMPA affect bone density?**

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

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

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

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

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

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

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