What Is the Levonorgestrel Intrauterine Device?

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

*One of the most effective and long-lasting methods:*

- Less than 1 pregnancy per 100 women using an LNG-IUD over the first year (2 per 1,000 women). This means that 998 of every 1,000 women using LNG-IUDs will not become pregnant.

- A small risk of pregnancy remains beyond the first year of use and continues as long as the woman is using the LNG-IUD.
  - Over 5 years of LNG-IUD use: Less than 1 pregnancy per 100 women (5 to 8 per 1,000 women).

- Approved for up to 5 years of use.

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

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

Side Effects, Health Benefits, Health Risks, and Complications

**Side Effects**

Some users report the following:

- Changes in bleeding patterns, including:
  - Lighter bleeding and fewer days of bleeding
  - Infrequent bleeding
  - Irregular bleeding
  - No monthly bleeding
  - Prolonged bleeding

- Acne

- Headaches

- Breast tenderness or pain

- Nausea

- Weight gain

- Dizziness

- Mood changes

Other possible physical changes:

- Ovarian cysts
**Known Health Benefits**

Helps protect against:
- Risks of pregnancy
- Iron-deficiency anemia

May help protect against:
- Pelvic inflammatory disease

Reduces:
- Menstrual cramps
- Symptoms of endometriosis (pelvic pain, irregular bleeding)

**Known Health Risks**

None

**Complications**

Rare:
- Puncturing (perforation) of the wall of the uterus by the LNG-IUD or an instrument used for insertion. Usually heals without treatment.

Very rare:
- Miscarriage, preterm birth, or infection in the very rare case that the woman becomes pregnant with the LNG-IUD in place.
Who Can and Cannot Use Levonorgestrel IUDs

Safe and Suitable for Nearly All Women

Nearly all women can use the LNG-IUD safely and effectively.

Medical Eligibility Criteria for Levonorgestrel IUDs

Ask the client the Medical Eligibility Criteria questions for Copper-Bearing IUDs (see p. 135). Also ask the questions below about known medical conditions. If she answers “no” to all of the questions here and for the copper-bearing IUD, then she can have an LNG-IUD inserted if she wants. If she answers “yes” to a question, follow the instructions. In some cases she can still have an LNG-IUD inserted.

1. Did you give birth less than 4 weeks ago?
   - NO
   - YES She can have the LNG-IUD inserted as soon as 4 weeks after childbirth (see When to Start, next page).

2. Do you now have a blood clot in the deep veins of your legs or lungs?
   - NO
   - YES If she reports current blood clot (except superficial clots), and she is not on anticoagulant therapy, help her choose a method without hormones.

3. Do you have severe cirrhosis of the liver, a liver infection, or liver tumor? (Are her eyes or skin unusually yellow? [signs of jaundice])
   - NO
   - YES If she reports serious active liver disease (jaundice, severe cirrhosis, liver tumor), do not provide the LNG-IUD. Help her choose a method without hormones.

4. Do you have or have you ever had breast cancer?
   - NO
   - YES Do not insert the LNG-IUD. Help her choose a method without hormones.

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

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

- Breastfeeding and less than 4 weeks since giving birth (considering the risks of another pregnancy and that a woman may have limited further access to the LNG-IUD)
- Acute blood clot in deep veins of legs or lungs
- Had breast cancer more than 5 years ago, and it has not returned
- Severe liver disease, infection, or tumor
- Systemic lupus erythematosus with positive (or unknown) antiphospholipid antibodies

See also Copper-Bearing IUD, Using Clinical Judgment in Special Cases, p. 136.

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### Providing the Levonorgestrel Intrauterine Device

#### When to Start

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

<table>
<thead>
<tr>
<th>Woman’s situation</th>
<th>When to start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having menstrual cycles or switching from a nonhormonal method</td>
<td>Any time of the month</td>
</tr>
<tr>
<td></td>
<td>• If she is starting within 7 days after the start of her monthly bleeding, no need for a backup method.</td>
</tr>
<tr>
<td></td>
<td>• If it is more than 7 days after the start of her monthly bleeding, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method* for the first 7 days after insertion.</td>
</tr>
</tbody>
</table>

*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.
<table>
<thead>
<tr>
<th>Woman’s situation</th>
<th>When to start</th>
</tr>
</thead>
</table>
| **Switching from a hormonal method**       | - Immediately, if she has been using the method consistently and correctly or if it is otherwise reasonably certain she is not pregnant. No need to wait for her next monthly bleeding. No need for a backup method.  
   - If she is switching from injectables, she can have the LNG-IUD inserted when the repeat injection would have been given. She will need a backup method for the first 7 days after insertion. |
| **Soon after childbirth**                   | - If not breastfeeding, any time within 48 hours after giving birth. (Requires a provider with specific training in postpartum insertion.)  
   After 48 hours, delay until at least 4 weeks.  
   - If breastfeeding, delay LNG-IUD insertion until 4 weeks after giving birth. (See p. 129, Q&A 8.)  |
| **Fully or nearly fully breastfeeding**     | - If she gave birth less than 4 weeks ago, delay insertion until at least 4 weeks after giving birth. (See p. 129, Q&A 8.)  
   - If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time between 4 weeks and 6 months. No need for a backup method.  
   - If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161). |
| Less than 6 months after giving birth       | - If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.  
   - If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161). |
<p>| More than 6 months since giving birth      | - Delay LNG-IUD insertion until at least 4 weeks after giving birth. (See p. 129, Q&amp;A 8.)                                                                                                                 |
| <strong>Partially breastfeeding or not breastfeeding</strong> | - Delay LNG-IUD insertion until at least 4 weeks after giving birth. (See p. 129, Q&amp;A 8.)                                                                                                                 |</p>
<table>
<thead>
<tr>
<th>Woman’s situation</th>
<th>When to start</th>
</tr>
</thead>
</table>
| Partially breastfeeding or not breastfeeding (continued) | • If her monthly bleeding has not returned, she can have the LNG-IUD inserted any time if it can be determined that she is not pregnant. She will need a backup method for the first 7 days after insertion.  
• If her monthly bleeding has returned, she can have the LNG-IUD inserted as advised for women having menstrual cycles (see p. 161).  |
| More than 4 weeks after giving birth |                                                                                                                                              |
| No monthly bleeding (not related to childbirth or breastfeeding) | • Any time if it can be determined that she is not pregnant. She will need a backup method for the first 7 days after insertion.  |
| After miscarriage or abortion    | • Immediately, if the LNG-IUD is inserted within 7 days after first- or second-trimester abortion or miscarriage and if no infection is present. No need for a backup method.  
• If it is more than 7 days after first- or second-trimester miscarriage or abortion and no infection is present, she can have the LNG-IUD inserted any time it is reasonably certain she is not pregnant. She will need a backup method for the first 7 days after insertion.  
• If infection is present, treat or refer and help the client choose another method. If she still wants the LNG-IUD, it can be inserted after the infection has completely cleared.  
• LNG-IUD insertion after second-trimester abortion or miscarriage requires specific training. If not specifically trained, delay insertion until at least 4 weeks after miscarriage or abortion.  |
| After taking emergency contraceptive pills (ECPs) | • The LNG-IUD can be inserted within 7 days after the start of her next monthly bleeding or any other time it is reasonably certain she is not pregnant. Give her a backup method, or oral contraceptives to start the day after she finishes taking the ECPs, to use until the LNG-IUD is inserted.  |
## Giving Advice on Side Effects

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

### Describe the most common side effects
- Changes in bleeding patterns:
  - No monthly bleeding, lighter bleeding, fewer days of bleeding, infrequent or irregular bleeding.
- Acne, headaches, breast tenderness and pain, and possibly other side effects.

### Explain about these side effects
- Bleeding changes usually are not signs of illness.
- Usually become less after the first several months after insertion.
- The client can come back for help if side effects bother her.