

# Comparing Contraceptives

## Comparing Combined Methods

Characteristic	Combined Oral Contraceptives	Monthly Injectables	Combined Patch	Combined Vaginal Ring
<b>How it is used</b>	Pill taken orally.	Intramuscular injection.	Patch worn on upper outer arm, back, abdomen or buttocks. Not on breasts.	Ring inserted in the vagina.
<b>Frequency of use</b>	Daily.	Monthly: Injection every 4 weeks.	Weekly: Patch is changed every week for 3 weeks. No patch worn 4th week.	Monthly: Ring kept in place for 3 weeks and taken out during 4th week.
<b>Effectiveness</b>	Depends on user's ability to take a pill every day.	Least dependent on the user. User must return to clinic every 4 weeks (plus or minus 7 days).	Requires user's attention once a week.	Depends on user keeping the ring in place all day, not leaving it out for more than 3 hours at a time.
<b>Bleeding patterns</b>	Typically, irregular bleeding for the first few months and then lighter and more regular bleeding.	Irregular bleeding or no monthly bleeding is more common than with COCs. Some also have prolonged bleeding in the first few months.	Similar to COCs, but irregular bleeding is more common in the first few cycles than with COCs.	Similar to COCs, but irregular bleeding is less common than with COCs.
<b>Privacy</b>	No physical signs of use but others may find the pills.	No physical signs of use.	Patch may be seen by partner or others.	Some partners may be able to feel the ring.

# Comparing Injectables

Characteristic	DMPA	NET-EN	Monthly Injectables
<b>Time between injections</b>	3 months.	2 months.	1 month.
<b>How early or late a client can have the next injection</b>	2 weeks.	2 weeks.	7 days.
<b>Injection technique</b>	Deep intramuscular injection into the hip, upper arm, or buttock. (Also, see Progestin-Only Injectables, New Formulation of DMPA, p. 63.)	Deep intramuscular injection into the hip, upper arm, or buttock. May be slightly more painful than DMPA.	Deep intramuscular injection into the hip, upper arm, buttock, or outer thigh.
<b>Typical bleeding patterns in first year</b>	Irregular and prolonged bleeding at first, then no bleeding or infrequent bleeding. About 40% of users have no monthly bleeding after 1 year.	Irregular or prolonged bleeding in first 6 months but shorter bleeding episodes than with DMPA. After 6 months bleeding patterns are similar to those with DMPA. 30% of users have no monthly bleeding after 1 year.	Irregular, frequent, or prolonged bleeding in first 3 months. Mostly regular bleeding patterns by 1 year. About 2% of users have no monthly bleeding after 1 year.
<b>Average weight gain</b>	1–2 kg per year.	1–2 kg per year.	1 kg per year.
<b>Pregnancy rate, as commonly used</b>	About 3 pregnancies per 100 women in the first year.	Assumed to be similar to DMPA.	
<b>Average delay in time to pregnancy after stopping injections</b>	4 months longer than for women who used other methods.	1 month longer than for women who used other methods.	1 month longer than for women who used other methods.

# Comparing Implants

Characteristic	Norplant	Jadelle	Implanon
<b>Type of progestin</b>	Levonorgestrel.	Levonorgestrel.	Etonogestrel.
<b>Number</b>	6 capsules.	2 rods.	1 rod.
<b>Lifespan</b>	Up to 7 years.	Up to 5 years.	3 years.
<b>Effectiveness and Client's Weight</b> (see also Implants, Question 9, p. 130)	80 kg or more: Becomes less effective after 4 years of use.  70–79 kg: Becomes less effective after 5 years of use.	80 kg or more: Becomes less effective after 4 years of use.	Weight has no known impact on effectiveness.
<b>Availability</b>	Being phased out of use (see Implants, Question 11, p. 130).	Expected to replace Norplant by 2011.	Primarily available in Europe and Asia. Also approved for use in United States.

# Comparing Condoms

Characteristic	Male Condoms	Female Condoms
<b>How to wear</b>	Rolled on the man's penis. Fits the penis tightly.	Inserted into the woman's vagina. Loosely lines the vagina and does not constrict the penis.
<b>When to put on</b>	Put on erect penis right before sex.	Can be inserted up to 8 hours before sex.
<b>Material</b>	Most made of latex; some of synthetic materials or animal membranes.	Most made of a thin, synthetic film; a few are latex.
<b>How it feels during sex</b>	Change feeling of sex.	Fewer complaints of changed feeling of sex than with male condoms.

*Continued on next page*

Characteristic	Male Condoms	Female Condoms
<b>Noise during sex</b>	May make a rubbing noise during sex.	May rustle or squeak during sex.
<b>Lubricants to use</b>	Users can add lubricants: <ul style="list-style-type: none"> <li>• Water-based or silicone-based only.</li> <li>• Applied to outside of condom.</li> </ul>	Users can add lubricants: <ul style="list-style-type: none"> <li>• Water-based, silicone-based, or oil-based.</li> <li>• Before insertion, applied to outside of condom.</li> <li>• After insertion, applied to inside of condom or to the penis.</li> </ul>
<b>Breakage or slippage</b>	Tend to break more often than female condoms.	Tend to slip more often than male condoms.
<b>When to remove</b>	Require withdrawing from the vagina before the erection subsides.	Can remain in vagina after erection subsides. Requires removal before woman stands.
<b>What it protects</b>	Cover and protect most of the penis, protect the woman's internal genitalia.	Cover both the woman's internal and external genitalia and the base of the penis.
<b>How to store</b>	Store away from heat, light, and dampness.	Plastic condoms are not harmed by heat, light or dampness.
<b>Reuse</b>	Cannot be reused.	Reuse not recommended (see Female Condoms, Question 5, p. 220).
<b>Cost and availability</b>	Generally low cost and widely available.	Usually more expensive and less widely available than male condoms (see Female Condoms, Question 10, p. 220).

# Comparing IUDs

Characteristic	Copper-Bearing IUD	Levonorgestrel IUD
<b>Effectiveness</b>	Nearly equal. Both are among the most effective methods.	
<b>Length of use</b>	Approved for 10 years.	Approved for 5 years.
<b>Bleeding patterns</b>	Longer and heavier monthly bleeding, irregular bleeding, and more cramping or pain during monthly bleeding.	More irregular bleeding and spotting in the first few months. After one year no monthly bleeding is more common. Causes less bleeding than copper-bearing IUDs over time.
<b>Anemia</b>	May contribute to iron-deficiency anemia if a woman already has low iron blood stores before insertion.	May help prevent iron-deficiency anemia.
<b>Main reasons for discontinuation</b>	Increased bleeding and pain.	No monthly bleeding and hormonal side effects.
<b>Noncontraceptive benefits</b>	May help protect against endometrial cancer.	Effective treatment for long and heavy monthly bleeding (alternative to hysterectomy). May also help treat painful monthly bleeding. Can be used as the progestin in hormone replacement therapy.
<b>Postpartum use</b>	Can be inserted up to 48 hours postpartum.	Can be inserted after 4 weeks postpartum.
<b>Use as emergency contraception</b>	Can be used within 5 days after unprotected sex.	Not recommended.
<b>Insertion</b>	Requires specific training but easier to insert than levonorgestrel IUD.	Requires specific training and a unique, more difficult insertion technique. Women may experience faintness, pain, and nausea or vomiting at insertion more than with the copper-bearing IUD.
<b>Cost</b>	Less expensive.	More expensive.

# Correctly Using a Male Condom



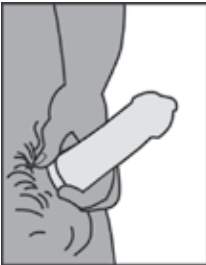
- 1. Use a new condom for each act of sex**



- 2. Before any contact, place the condom on tip of erect penis with rolled side out**



- 3. Unroll the condom all the way to base of penis**



- 4. After ejaculation, hold rim of condom in place, and withdraw penis while it is still erect**



- 5. Dispose of the used condom safely**

# Female Anatomy

## and How Contraceptives Work in Women

### Internal Anatomy

#### Womb (uterus)

Where a fertilized egg grows and develops into a fetus. *IUDs* are placed in the uterus, but they prevent fertilization in the fallopian tubes. *Copper-bearing IUDs* also kill sperm as they move into the uterus.

#### Ovary

Where eggs develop and one is released each month. The *lactational amenorrhea method (LAM)* and *hormonal methods*, especially those with estrogen, prevent the release of eggs. *Fertility awareness methods* require avoiding unprotected sex around the time when an ovary releases an egg.

#### Uterine lining (endometrium)

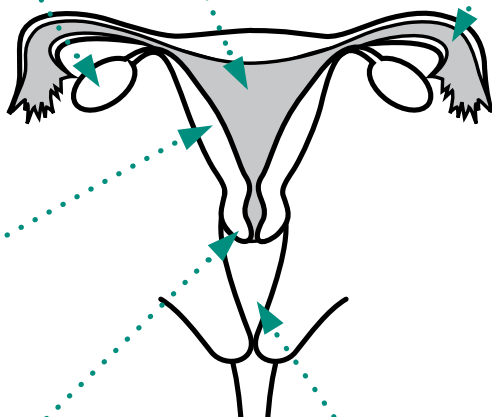
Lining of the uterus, which gradually thickens and then is shed during monthly bleeding.

#### Cervix

The lower portion of the uterus, which extends into the upper vagina. It produces mucus. *Hormonal methods* thicken this mucus, which helps prevent sperm from passing through the cervix. Some *fertility awareness methods* require monitoring cervical mucus. The *diaphragm*, *cervical cap*, and *sponge* cover the cervix so that sperm cannot enter.

#### Fallopian tube

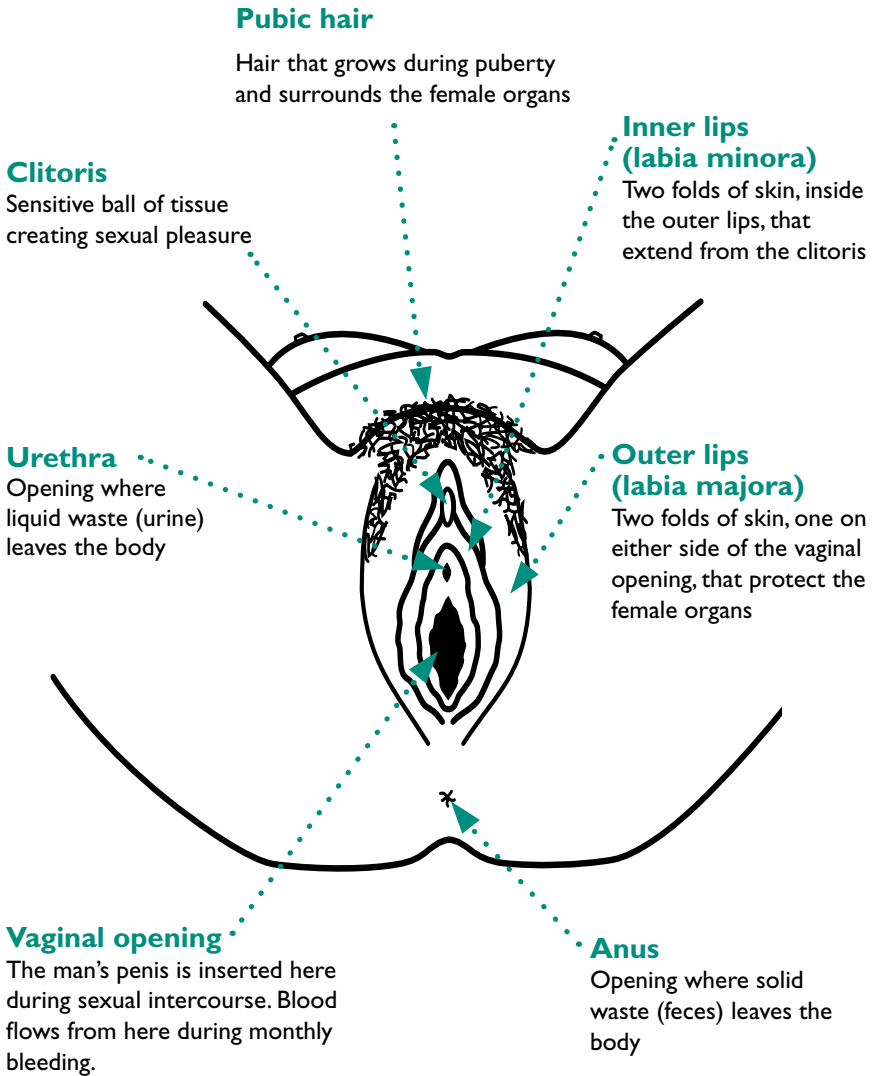
An egg travels along one of these tubes once a month, starting from the ovary. Fertilization of the egg (when sperm meets the egg) occurs in these tubes. *Female sterilization* involves cutting or clipping the fallopian tubes. This prevents sperm and egg from meeting. *IUDs* cause a chemical change that damages sperm before they can meet the egg in the fallopian tube.



#### Vagina

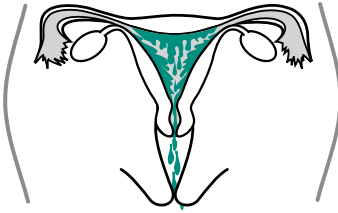
Joins the outer sexual organs with the uterus. The *combined ring* is placed in the vagina, where it releases hormones that pass through the vaginal walls. The *female condom* is placed in the vagina, creating a barrier to sperm. *Spermicides* inserted into the vagina kill sperm.

# External Anatomy



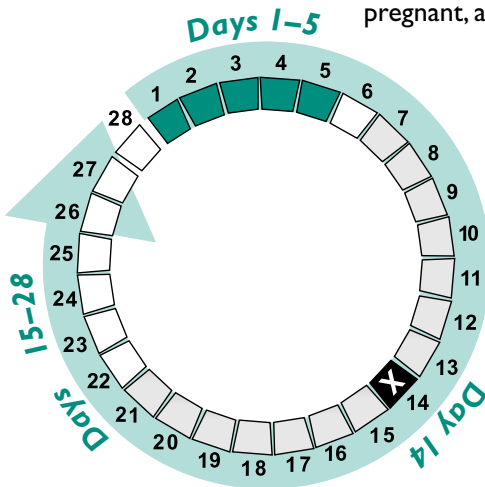
# The Menstrual Cycle

## 1 Days 1–5: Monthly bleeding

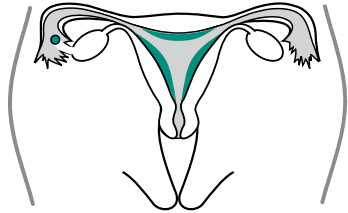


Usually lasts from 2–7 days, often about 5 days

If there is no pregnancy, the thickened lining of the womb is shed. It leaves the body through the vagina. This monthly bleeding is also called menstruation. Contractions of the womb at this time can cause cramps. Some women bleed for a short time (for example, 2 days), while others bleed for up to 8 days. Bleeding can be heavy or light. If the egg is fertilized by a man's sperm, the woman may become pregnant, and monthly bleeding stops.



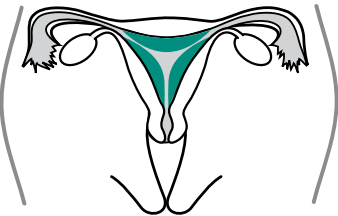
## 2 Day 14: Release of egg



Usually occurs between days 7 and 21 of the cycle, often around day 14

Usually, one of the ovaries releases one egg in each cycle (usually once a month). The egg travels through a fallopian tube towards the womb. It may be fertilized in the tube at this time by a sperm cell that has travelled from the vagina.

## 3 Days 15–28: Thickening of the womb lining



Usually about 14 days long, after ovulation

The lining of the uterus (endometrium) becomes thicker during this time to prepare for a fertilized egg. Usually there is no pregnancy, and the unfertilized egg cell dissolves in the reproductive tract.

# Male Anatomy

## and How Contraceptives Work in Men

### Penis

Male sex organ made of spongy tissue. When a man becomes sexually excited, it grows larger and stiffens. Semen, containing sperm, is released from the penis (ejaculation) at the height of sexual excitement (orgasm). A *male condom* covers the erect penis, preventing sperm from entering the woman's vagina. *Withdrawal* of the penis from the vagina avoids the release of semen into the vagina.

### Urethra

Tube through which semen is released from the body. Liquid waste (urine) is released through the same tube.

### Foreskin

Hood of skin covering the end of the penis. Circumcision removes the foreskin.

### Scrotum

Sack of thin loose skin containing the testicles.

### Testicles

Organs that produce sperm.

### Seminal vesicles

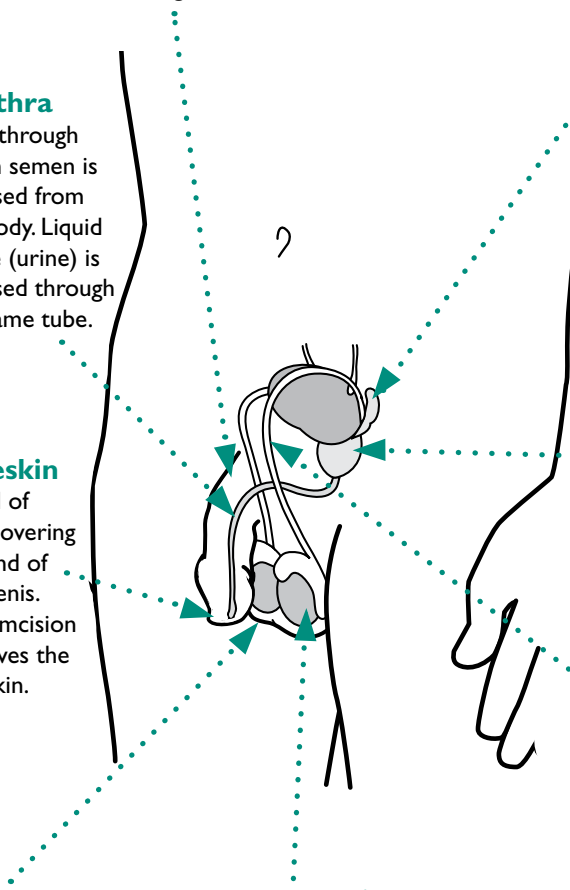
Where sperm is mixed with semen.

### Prostate

Organ that produces some of the fluid in semen.

### Vas deferens

Each of the 2 thin tubes that carry sperm from the testicles to the seminal vesicles. *Vasectomy* involves cutting or blocking these tubes so that no sperm enters the semen.



# Identifying Migraine Headaches and Auras

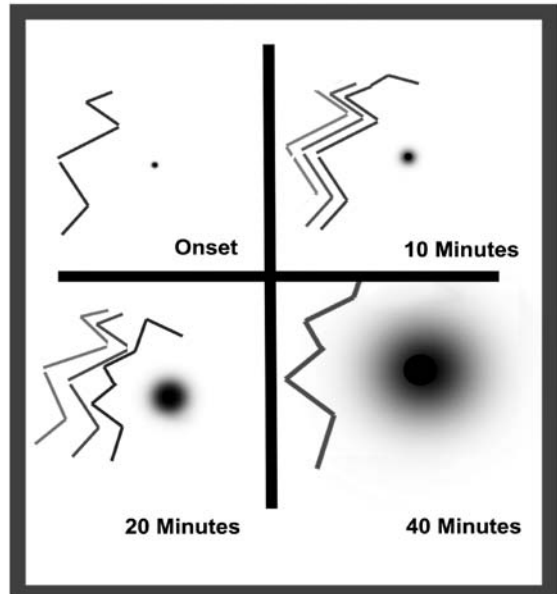
Identifying women who suffer from migraine headaches and/or auras is important because migraines, and aura in particular, are linked to higher risk of stroke. Some hormonal contraceptives can increase that risk further.

## Migraine Headaches

- Recurring, throbbing, severe head pain, often on one side of the head, that can last from 4 to 72 hours.
- Moving about often makes the migraine headache worse.
- Nausea, vomiting, and sensitivity to light or noise may also occur.

## Migraine Auras

- Nervous system disruptions that affect sight and sometimes touch and speech.
- Almost all auras include a bright area of lost vision in one eye that increases in size and turns into a crescent shape with zigzag edges.
- About 30% of auras also include a feeling of “pins and needles” in one hand that spreads up the arm and to one side of the face. Some auras also include trouble with speaking. Seeing spots or flashing lights, or having blurred vision, which often occurs during migraine headaches, is not aura.



*People describe visual auras as bright, shimmering lines or waves around a bright area of lost vision that increase in size and turn into a crescent shape with zigzag edges. The black spot represents how the area of lost vision increases in size over time.*

- Auras develop slowly over several minutes and go away within an hour, typically before the headache starts. (In contrast, a sudden blackout in one eye, particularly with a feeling of “pins and needles” or weakness in the opposite arm or leg, may indicate a stroke.)

# Identifying Migraine Headaches

For women who want a hormonal method<sup>†§</sup> or are using one.

If a woman reports having very bad headaches, ask her these questions to tell the difference between a migraine headache and an ordinary headache. If she answers “yes” to any 2 of these questions, she probably suffers from migraine headaches. Continue to Identifying Migraine Auras, below.

1. Do your headaches make you feel sick to your stomach?
2. When you have a headache, do light and noise bother you a lot more than when you do not have a headache?
3. Do you have headaches that stop you from working or carrying out your usual activities for one day or more?

## Identifying Migraine Auras

Ask this question to identify the most common migraine aura.

If a woman answers “yes,” she probably suffers from migraine auras.

1. Have you ever had a bright light in your eyes lasting 5 to 60 minutes, loss of clear vision usually to one side, and then a headache? (Women with such aura often bring one hand up beside their heads when describing the vision change. In some cases the bright light is not followed by a headache.)

If her headaches are not migraines and she does not have aura, she can start or continue hormonal methods if she is otherwise medically eligible. Any later changes in her headaches should be evaluated, however.

## Can a Woman With Migraines and/or Aura Use a Hormonal Method?

In situations where clinical judgment is limited:

**Yes** = Yes, can use      **No** = No, do not use  
**I** = Initiation      **C** = Continuation

	Combined methods <sup>†</sup>		Progestin-only methods <sup>§</sup>	
	I	C	I	C
<b>Migraine headaches</b>				
Without aura				
Age < 35	Yes	No	Yes	Yes
Age ≥ 35	No	No	Yes	Yes
With aura, at any age	No	No	Yes	No

<sup>†</sup> Methods with estrogen and progestin: combined oral contraceptives, monthly injectables, combined patch, and combined vaginal ring

<sup>§</sup> Methods with progestin only: progestin-only pills, progestin-only injectables, and implants