



Fact Sheet

From ReproductiveFacts.org



The Patient Education Website of the American Society for Reproductive Medicine

Hormonal Contraception

How do hormonal contraceptives work?

Hormonal contraceptives contain a progestin (progesterone medicine) with or without an estrogen. Both progestin and estrogen are made in a laboratory and are similar to the hormones that all women naturally produce. These two hormones together, or the progestin alone, work in several ways to prevent a pregnancy:

- They can prevent ovulation (the release of an egg).
- They make the mucus around the cervix (mouth of the womb) thicker so that sperm cannot enter the uterus (womb).
- They make the lining of the uterus (womb) thinner to prevent a fertilized egg from attaching itself.

Why should I consider hormonal contraception?

When used correctly, all hormonal contraception choices are more than 99% effective in preventing pregnancy. They also have other potential benefits:

- They reduce the risk of uterine, ovarian, and colon cancers.
- They often reduce menstrual (period) blood flow.
- They may reduce painful periods.

Are there women who should avoid using hormonal contraception?

Women with the following conditions should avoid using contraceptive agents that contain hormones:

- Current or history of thrombophlebitis or thromboembolic (clotting) disorders
- Current or history of stroke or coronary artery disease
- Heart disease associated with the valves with thrombogenic (clotting) complications
- Untreated and uncontrolled high blood pressure
- Diabetes with circulatory problems
- Headaches with neurologic symptoms
- Major surgery with decreased activity
- Known or suspected cancer of the breast or personal history of breast cancer

What different types of hormonal contraception are available?

- **Oral contraceptives:** There are various formulations and doses that can be changed to meet your needs. Most contain a combination of estrogen and a progestin. They can be used cyclically (to produce regular menstrual cycles) or continuously (no regular menstrual cycles).
- **Injectable progestin:** Contains a form of progestin that is given as a shot every 12 weeks. It may take up to 12 months for you to start ovulating again after you stop getting the shots.
- **Skin Patch:** Contains a form of both estrogen and progestin that is given weekly for 3 weeks followed by a patch-free week. It may not be as effective in women who weigh over 90 kg (200 pounds). Estrogen levels in women

taking the patch may be higher than in women taking pills. This may mean a higher risk of blood clots.

- **Vaginal Ring:** A flexible, small ring containing both estrogen and progestin. It is used continuously for 3 weeks, followed by a week without the ring. It can be removed for a short time for sexual intercourse.
- **Progesterone intrauterine contraception:** A small device that a doctor puts into the uterine cavity that contains progestin. It can be used for up to 5 years and can be removed earlier.
- **Implantable form:** A single rod containing progestin that is implanted by your doctor under the skin. It is effective for up to 3 years and can be removed earlier.

What is emergency contraception (EC)?

EC is designed to prevent a pregnancy if it is taken within 72 hours after you have unprotected sex. If used properly, treatments are about 75% effective. EC prevents ovulation without affecting an already developing pregnancy. There are no medical reasons preventing women from taking EC. EC contains progestin, with or without estrogen, that is given in 2 doses, 12 hours apart. In the U.S., some brands can be purchased over the counter for women aged 17 and older.

What are the potential risks of using hormonal contraception?

- **Breast Cancer:** A small number of studies show a slight increased risk of breast cancer in women under age 35 using hormonal contraception, but many more studies show no significant change in breast cancer risk. Overall by age 50 there is no increased risk of breast cancer in women using hormonal contraception.
- **Bone Strength:** Injectable progestin may cause a short-term decrease in bone mass. Data are limited for other forms of hormonal contraception.
- **Heart Attack:** This is extremely rare. Although hormonal contraception slightly increases this risk, women over age 35 who smoke are at a higher risk.
- **Stroke:** This is very rare. This risk may be increased in women who have migraines preceded by visual changes (aura) or who are over age 35 and smoke.
- **Blood Clots (venous thromboembolism):** Although the overall risk is very low, the risk is increased in all women who use formulations containing estrogen. This risk is higher in women who have underlying conditions that make them more likely to develop blood clots.

Please ask your doctor for more information about the benefits, risks, and side effects of these contraceptive agents.

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