



PATIENT FACT SHEET

Nonhormonal Contraception

Despite a large number of contraceptive options available to couples, it is still thought that 50% of pregnancies in the United States are unintended. Therefore, it is important to choose a contraceptive that can be used consistently and correctly.

When deciding on a contraceptive method, you need to think about how effective and convenient the contraceptive method is, how long it lasts, whether it can be reversed, its side effects, price, and if it provides protection against sexually transmitted infections.

How does contraception work?

Contraceptive agents work in many ways to prevent a pregnancy. They are usually divided into those that are either hormonal or nonhormonal. Most of the hormonal contraceptives work by changing a woman's hormone levels to mimic a pregnancy, therefore preventing eggs from being able to be released from the ovary. In contrast, nonhormonal contraceptive agents or devices work by preventing a man's sperm from joining a woman's egg.

Barrier contraception

Barrier contraceptives prevent sperm from entering the uterus and fallopian tubes. The barrier may be chemical (spermicide) or physical (male and female condoms, diaphragm, cervical cap, Lea's shield, contraceptive sponge).

Diaphragms and cervical caps must be fitted by an experienced health care provider and must be left in the vagina for 6 to 8 hours after sex. Condoms and the contraceptive sponge do not require a prescription. Barrier methods do not have many side effects, unless you or your partner are allergic to the material (latex) from which the method is made.

Couples using a barrier method of contraception can notice a failure rate (number of failures per 100 women who use the method) that ranges from 15% (male condom) to 20% (diaphragm, cervical cap) to 32% (cervical cap or sponge) of the time. When two barrier methods are used together (like a diaphragm and a condom), they become highly effective (up to 95%). If the barrier method breaks or falls out during sex, a woman may consider taking emergency contraception (the "morning-after" pill). Some barrier contraceptives also help to protect against sexually transmitted infections.

Natural family planning

Each month, a woman produces an egg, which is released from the ovary and travels through the fallopian tubes to the uterus. When the egg is released, this is called ovulation. The time during which the egg moves from the ovary to the uterus lasts a few days and is the only time in which a woman can become pregnant. Couples who use natural family planning have to determine when the woman is ovulating and avoid having sex during that time.

There are ways that you can tell if you are ovulating and should not have sex:

- Keeping track of menstrual periods -- ovulation occurs two weeks before the next menstrual period. Therefore, having a calendar of 3-4 cycles will provide an estimate of when ovulation may take place.
- Recording body temperature each morning -- basal body temperature falls prior to ovulation with a rise after ovulation
- Observing cervical mucus; it will be thinner and "stretchier" right before ovulation.
- Breastfeeding -- women may not ovulate when they are breastfeeding. This may depend on the frequency of breastfeeding.

Another commonly practiced method of natural family planning is withdrawal, in which the man does not ejaculate inside the vagina at the time of male orgasm. However, this method has a high rate of failure.

The use of natural family planning can fail 2% to 25% of the time, depending on the experience of the couple practicing this method. Women with irregular periods, abnormal bleeding, or cervical or vaginal infections cannot use natural family planning because they cannot predict when they may ovulate. Certain medications and medical conditions can change a woman's cervical mucus or body temperature, so these women should not use natural family planning.

Intrauterine devices

Intrauterine devices (IUDs) are safe and effective forms of long-term reversible contraception. There are two available IUDs: one containing a progestin (a hormone) and the other containing copper. A doctor places the device in the woman's uterus and it can be used for either five (progestin containing) or 10 (copper) years.

Failure rates with IUDs range from 0.1% to 0.8%. Both types of IUDs work by preventing the egg from developing normally. They also impair sperm movement when the sperm enter the uterus, which decreases the chances that an egg will be fertilized. The IUD may also cause changes to the lining of the uterus that could prevent a fertilized egg from implanting. The side effects include a slight increased risk of pelvic infection caused by placement of the IUD.

Surgery

Sterilization is the most commonly used form of nonhormonal contraception around the world; but it is a permanent procedure. Depending on the type of procedure used, only small surgical incisions are required. However, some forms of sterilization may not necessitate an incision.

A tubal ligation involves separation of the fallopian tubes into two segments using a ring, clip, stitch, or electric current. This prevents the egg from moving through the tube and keeps the sperm from reaching the egg. Most methods of sterilization in women work right away -- but not all! The failure rate is less than 1%. If a woman does become pregnant after sterilization, there is a 33% risk of a tubal ectopic pregnancy (a dangerous condition in which a fertilized egg stays in the fallopian tube). There is some evidence that tubal ligation may lower the risk of ovarian cancer.

Another method of female sterilization involves placing a spring-like coil through the cervix and into the uterus. These coils are placed into the area of the uterus where the fallopian tubes enter. Placement of these coils can be performed in the physician's office or in the hospital by using a hysteroscope, which is a small telescope that is connected to a television camera. This procedure does not involve incisions. It may take three to six months for scar tissue to form around the coils to completely block the tubes. If the tubes remain blocked, the failure rate should be similar to surgical tubal ligation.

In men, sterilization is called vasectomy. Before ejaculation, sperm travel through a tube called the vas deferens. At the time of vasectomy, the tubes are tied, cut, clipped, or sealed to prevent the release of sperm. This procedure is highly effective with a failure rate of less than 1%. However, a vasectomy is not effective right away. There may still be sperm in the semen for up to three months after the vasectomy is performed, and men should use back-up contraception for at least eight ejaculations or up to 12 weeks. There is no increase in testicular or prostate cancer in men after a vasectomy.