

BIRTH CONTROL

Birth control, sometimes synonymous with **contraception**, is a regimen of one or more actions, devices, or medications followed in order to deliberately prevent or reduce the likelihood of pregnancy or childbirth. Contraception may refer specifically to mechanisms which are intended to reduce the likelihood of the fertilization of an ovum by a spermatozoon.

The history of birth control began with the discovery of the connection between coitus and pregnancy. The oldest forms of birth control included *coitus interruptus*, pessaries, and the ingestion of herbs that were believed to be contraceptive or abortifacient. The earliest record of birth control use is instructions on creating a contraceptive pessary from Ancient Egypt.

Different methods of birth control have varying characteristics. Condoms, for example, are the only method that provides significant protection from sexually transmitted diseases. Because of the sexual and ethical nature of the subject, cultural and religious attitudes on birth control vary significantly.

Physical methods

Barrier methods

Barrier methods place a physical impediment to the movement of sperm into the female reproductive tract.

The most popular barrier method is the male condom, a latex or polyurethane sheath placed over the penis. The condom is also available in a female version, which is made of polyurethane. The female condom has a flexible ring at each end — one secures behind the pubic bone to hold the condom in place, while the other ring stays outside the vagina.

Cervical barriers are devices that are contained completely within the vagina. The contraceptive sponge has a depression to hold it in place over the cervix. The cervical cap is the smallest cervical barrier. It stays in place by suction to the cervix or to the vaginal walls. The Lea's shield is a larger cervical barrier, also held in place by suction. The diaphragm fits into place behind the woman's pubic bone and has a firm but flexible ring, which helps it press against the vaginal walls.

Hormonal methods

There is variety of delivery methods for hormonal contraception.

Combinations of synthetic oestrogens and progestins (synthetic progestogens) are commonly used. These include the combined oral contraceptive pill ("The Pill"), the Patch, and the contraceptive vaginal ring ("NuvaRing"). Not currently available for sale in the United States is Lunelle, a monthly injection.

Other methods contain only a progestin (a synthetic progestogen). These include the progestin only pill (the POP or 'minipill'), the injectables Depo Provera (a depot formulation of medroxyprogesterone acetate given as an intramuscular injection every three months) and Noristerat (norethisterone acetate given as an intramuscular injection every 8 weeks), and contraceptive implants. The

progestin-only pill must be taken at more precisely remembered times each day than combined pills. The first contraceptive implant, the original 6-capsule Norplant, was removed from the market in the United States in 1999, though a newer single-rod implant called Implanon was approved for sale in the United States on July 17, 2006. The various progestin-only methods may cause irregular bleeding during use.

Ormeloxifene (Centchroman)

Ormeloxifene (Centchroman) is a selective estrogen receptor modulator, or SERM. It causes ovulation to occur asynchronously with the formation of the uterine lining, preventing implantation of a zygote. It has been widely available as a birth control method in India since the early 1990s, marketed under the trade name Saheli.

Intrauterine methods

These are contraceptive devices which are placed inside the uterus. They are usually shaped like a "T" — the arms of the T hold the device in place. There are two main types of intrauterine contraceptives: those that contain copper (which has a spermicidal effect), and those that release a progestogen

Emergency contraception

Some combined pills and POPs may be taken in high doses to prevent pregnancy after a birth control failure (such as a condom breaking) or after unprotected sex. Hormonal emergency contraception is also known as the "morning after pill," although it is licensed for use up to three days after intercourse.

Copper intrauterine devices may also be used as emergency contraception. For this use, they must be inserted within five days of the birth control failure or unprotected intercourse.

Because emergency contraception may prevent a fertilized egg from developing, some people consider it a form of abortion.

Induced abortion

Abortion can be done with surgical methods, usually suction-aspiration abortion (in the first trimester) or dilation and evacuation (in the second trimester). Medical abortion uses drugs to end a pregnancy and is approved for pregnancies where the length of gestation has not exceeded 8 weeks.

Some herbs are believed to cause abortion (abortifacients). Peer-reviewed research has proven the efficacy of some of these substances, but the use of herbs to induce abortion is not recommended, due to the risk of serious side effects

Abortion is subject to ethical debate.

Sterilization

Surgical sterilization is available in the form of tubal ligation for women and vasectomy for men. In women, the process may be referred to as "tying the tubes," but the fallopian tubes may be tied, cut, clamped, or blocked. This serves to prevent sperm from joining the unfertilized egg. The non-surgical sterilization procedure, Essure, is an example of a procedure that blocks the tubes. Sterilization should be considered permanent.

Behavioral methods

Fertility awareness methods

Fertility awareness (FA) methods involve a woman's observation and charting of one or more of her body's primary fertility signs, to determine the fertile and infertile phases of her cycle. Charting may

be done by the woman on paper, with the assistance of software, or by fertility monitoring devices that accept and interpret temperature readings, information from home urinalysis tests, or both.

Unprotected sex is restricted to the least fertile period. During the most fertile period, barrier methods may be avoided, or she may abstain from intercourse. Most methods track one or more of the three primary fertility signs: changes in basal body temperature, in cervical mucus, and in cervical position, though cervical position is most frequently used as a cross-reference with one or both of the others. If a woman tracks both basal body temperature and another primary sign, the method is referred to as *symptothermal*. Some fertility monitoring devices use urinalysis to follow the levels of estrogen and luteinizing hormone throughout a woman's menstrual cycle. Other bodily cues such as mittelschmerz are considered secondary indicators.

The term *natural family planning* (NFP) is sometimes used to refer to any use of FA methods. However, this term specifically refers to the practices which are permitted by the Roman Catholic Church — breastfeeding infertility, and periodic abstinence during fertile times.

Statistical methods

Statistical methods such as the Rhythm Method and Standard Days Method are dissimilar from observational fertility awareness methods, in that they do not involve the observation or recording of bodily cues of fertility. Instead, statistical methods estimate the likelihood of fertility based on the length of past menstrual cycles. Statistical methods are much less accurate than fertility awareness methods, and are considered by many fertility awareness teachers to have been obsolete for at least 20 years.

Coitus interruptus

Coitus interruptus (literally "interrupted sex"), also known as the withdrawal method, is the practice of ending sexual intercourse ("pulling out") before ejaculation. The main risk of coitus interruptus is that the man may not make the maneuver in time. Although concern has been raised about the risk of pregnancy from sperm in pre-ejaculate

Avoiding vaginal intercourse

The risk of pregnancy from non-vaginal sex, such as outercourse (sex without penetration), anal sex, or oral sex is virtually zero. (A very small risk comes from the possibility of semen leaking onto the vulva (with anal sex) or coming into contact with an object, such as a hand, that later contacts the vulva.) However, with this method, care must be taken to prevent the progression to intercourse.

Abstinence

Sexual abstinence is the practice of refraining from all sexual activity.

Lactational

Most breastfeeding women have a period of infertility after the birth of their child. The lactational amenorrhea method, or LAM, gives guidelines for determining the length of a woman's period of breastfeeding infertility.

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