

Family planning (Birth control)

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Objectives:

To help the students identify methods of birth control and its benefits.

Introduction

There are a number of methods available to help prevent pregnancy, with some of the most popular including condoms and birth control pills. Deciding which method is right can be tough because there are many issues to consider, including costs, future pregnancy plans, side effects, and others.

Family planning allows people to attain their desired number of children and determine the spacing of pregnancies.

Benefits of family planning / contraception

Promotion of family planning – and ensuring access to preferred contraceptive methods for women and couples .

Contraceptive methods / Modern methods

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
Combined oral contraceptives (COCs) or “the pill”	Contains two hormones (estrogen and progestogen)	Prevents the release of eggs from the ovaries (ovulation)	>99% with correct and consistent use 92% as commonly used	Reduces risk of endometrial and ovarian cancer
Progestogen-only pills	Contains only progestogen	Thickens cervical mucous to	99% with correct and consistent use	Can be used while breastfeeding;

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
(POPs) or "the minipill"	hormone, not estrogen	block sperm and egg from meeting and prevents ovulation	90–97% as commonly used	must be taken at the same time each day
Implants	Small, flexible rods or capsules placed under the skin of the upper arm; contains progestogen hormone only	Thickens cervical mucous to block sperm and egg from meeting and prevents ovulation	>99%	Health-care provider must insert and remove; can be used for 3–5 years depending on implant; irregular vaginal bleeding common but not harmful
Progestogen only injectables	Injected into the muscle or under the skin every 2 or 3 months, depending on product	Thickens cervical mucous to block sperm and egg from meeting and prevents ovulation	>99% with correct and consistent use 97% as commonly used	Delayed return to fertility (about 1–4 months on the average) after use; irregular vaginal bleeding common, but not harmful
Monthly injectables or combined	Injected monthly into the muscle,	Prevents the release of eggs	>99% with correct and consistent use	Irregular vaginal bleeding

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injectable contraceptives (CIC)	contains estrogen and progestogen	from the ovaries (ovulation)	97% as commonly used	common, but not harmful
Intrauterine device (IUD): copper containing	Small flexible plastic device containing copper sleeves or wire that is inserted into the uterus	Copper component damages sperm and prevents it from meeting the egg	>99%	Longer and heavier periods during first months of use are common but not harmful; can also be used as emergency contraception
Intrauterine device (IUD) levonorgestrel	A T-shaped plastic device inserted into the uterus that steadily releases small amounts of levonorgestrel each day	Thickens cervical mucous to block sperm and egg from meeting	>99%	Decreases amount of blood lost with menstruation over time; Reduces menstrual cramps and symptoms of endometriosis; amenorrhea (no menstrual bleeding) in a group of users

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
Male condoms	Sheaths or coverings that fit over a man's erect penis	Forms a barrier to prevent sperm and egg from meeting	98% with correct and consistent use 85% as commonly used	Also protects against sexually transmitted infections, including HIV
Female condoms	Sheaths, or linings, that fit loosely inside a woman's vagina, made of thin, transparent, soft plastic film	Forms a barrier to prevent sperm and egg from meeting	90% with correct and consistent use 79% as commonly used	Also protects against sexually transmitted infections, including HIV
Male sterilization (vasectomy)	Permanent contraception to block or cut the vas deferens tubes that carry sperm from the testicles	Keeps sperm out of ejaculated semen	>99% after 3 months semen evaluation 97–98% with no semen evaluation	3 months delay in taking effect while stored sperm is still present; does not affect male sexual performance; voluntary and informed choice is essential
Female sterilization (tubal ligation)	Permanent contraception to block or cut the fallopian tubes	Eggs are blocked from meeting sperm	>99%	Voluntary and informed choice is essential

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
Lactational amenorrhea method (LAM)	Temporary contraception for new mothers whose monthly bleeding has not returned; requires exclusive or full breastfeeding day and night of an infant less than 6 months old	Prevents the release of eggs from the ovaries (ovulation)	99% with correct and consistent use 98% as commonly used	A temporary family planning method based on the natural effect of breastfeeding on fertility
Emergency contraception pills (ulipristal acetate 30 mg or levonorgestrel 1.5 mg)	Pills taken to prevent pregnancy up to 5 days after unprotected sex	Delays ovulation	If all 100 women used progestin-only emergency contraception, one would likely become pregnant.	Does not disrupt an already existing pregnancy
Standard Days Method or SDM	Women track their fertile periods (usually days 8 to 19 of each 26 to 32 day cycle) using cycle	Prevents pregnancy by avoiding unprotected vaginal sex during most fertile days.	95% with consistent and correct use.	Can be used to identify fertile days by both women who want to become pregnant and women who want to avoid

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
	beads or other aids			pregnancy. Correct, consistent use requires partner cooperation.
			88% with common use (Arevalo et al 2002)	
Basal Body Temperature (BBT) Method	Woman takes her body temperature at the same time each morning before getting out of bed observing for an increase of 0.2 to 0.5 degrees C.	Prevents pregnancy by avoiding unprotected vaginal sex during fertile days	99% effective with correct and consistent use. 75% with typical use of FABM (Trussell, 2009)	If the BBT has risen and has stayed higher for 3 full days, ovulation has occurred and the fertile period has passed. Sex can resume on the 4th day until her next monthly bleeding.
Sympto-thermal Method	Women track their fertile periods by observing changes in the cervical mucus (clear texture) ,	Prevents pregnancy by avoiding unprotected vaginal sex during most fertile	Reported 98% with typical use (Manhart et al, 2013)	May have to be used with caution after an abortion, around menarche or menopause, and in

Method	Description	How it works	Effectiveness to prevent pregnancy	Comments
Sympto-thermal Method	body temperature (slight increase) and consistency of the cervix (softening).			conditions which may increase body temperature.
	Women track their fertile periods by observing changes in the cervical mucus (clear texture) , body temperature (slight increase) and consistency of the cervix (softening).	Prevents pregnancy by avoiding unprotected vaginal sex during most fertile		May have to be used with caution after an abortion, around menarche or menopause, and in conditions which may increase body temperature.

Traditional methods

Traditional Methods

Calendar method or	Women monitor their	The couple prevents	91% with correct and	May need to delay or use with
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Traditional Methods

rhythm method	pattern of menstrual cycle over 6 months, subtracts 18 from shortest cycle length (estimated 1st fertile day) and subtracts 11 from longest cycle length (estimated last fertile day)	pregnancy by avoiding unprotected vaginal sex during the 1st and last estimated fertile days, by abstaining or using a condom.	consistent use. 75% with common use	caution when using drugs (such as anxiolytics, antidepressants, NSAIDs, or certain antibiotics) which may affect timing of ovulation.
Withdrawal (coitus interruptus)		Tries to keep sperm out of the woman's body, preventing fertilization	96% with correct and consistent use 73% as commonly used	One of the least effective methods, because proper timing of withdrawal is often difficult to determine, leading to the risk of ejaculating while inside the vagina.

Intrauterine Devices (IUD)

IUDs are placed by a healthcare provider through the vagina and cervix, into the uterus. The currently available IUDs are safe and effective. These devices include:

- Copper-containing IUD – The Copper-containing IUD remains effective for at least 10 years, but can be removed at any time. The

Copper IUD does not contain any hormones. Some women have a heavier menstrual period or more cramps during their period while using a copper IUD.

- **Levonorgestrel-releasing IUD** – The levonorgestrel-releasing IUD (which is available in different doses) releases a hormone, levonorgestrel, which thickens the cervical mucus and thins the endometrium (the lining of the uterus). This IUD also decreases the amount you bleed during your period and decreases pain associated with periods. While IUDs can be removed at any time, they can be left in place for up to three or five years (depending on type of IUD chosen), but can be removed at any time, and is highly effective in preventing pregnancy. Some women stop having menstrual periods entirely; this effect is reversed when the IUD is removed.

Birth Control Implant

A single-rod progestin implant, Nexplanon, is available in the United States and elsewhere. It is inserted by a healthcare provider into your arm. While it prevents pregnancy for at least 3 years as the hormone is slowly absorbed into the body, it can be removed at any time. It is effective within 24 hours of insertion. Irregular bleeding is the most bothersome side effect. Most women can become pregnant quickly after the rod is removed.

Injectable Birth Control

The only injectable method of birth control currently available in the United States is medroxyprogesterone acetate or DMPA (Depo-Provera). This is a progestin hormone, which is long-lasting. DMPA is injected deep into a muscle, such as the buttock or upper arm, once every three months. A version that is given under the skin is also available.

DMPA is very effective, when used consistently. A full discussion is available separately.

Side effects — The most common side effects of DMPA are irregular or prolonged vaginal bleeding and spotting, particularly during the first three to six months. Up to 50 percent of women completely stop having menstrual periods after using DMPA for one year. Although ovulation and menstrual periods generally return within six months of the last DMPA injection, it can take up to a year and a half for ovulation and cycles to return. For this reason, DMPA should be used only by women who do not wish to become pregnant in the next year or longer.

Birth Control Pills

Most birth control pills, also referred to as "the pill," contain a combination of two female hormones. A full discussion of birth control pills is available separately

How well do they work? — When taken properly, birth control pills are very effective. If miss one pill, should take it as soon as possible. If miss two or more pills, continue to take one pill per day and use a back-up method of birth control (eg, a condom) for seven days. If miss two or more pills, should also consider taking the morning after (emergency contraception) pill.

Side effects — Side effects of the pill include:

- Nausea, breast tenderness, bloating, and mood changes, which typically improve after two to three months.
- Irregular vaginal spotting or bleeding. This is particularly common during the first few months. Forgetting a pill can also cause irregular bleeding.

Progestin-only pills — Unlike traditional birth control pills, the progestin-only pill, also called the mini pill, does not contain estrogen. It does contain progestin, a hormone that is similar to the female hormone, progesterone. This type of pill is useful for women who cannot or should not take estrogen.

Progestin-only pills are as effective as combination pills if they are taken at the same time every day. However, the progestin-only pill becomes less effective if you are more than three hours late in taking it, in which case, emergency contraceptives may be considered.

Skin Patches

Birth control skin patches contain two hormones, estrogen and progestin, similar to birth control pills. The patch is as effective as birth control pills, and may be preferred by some women .

Vaginal Ring

A flexible plastic vaginal ring (Nuvaring) contains estrogen and a progestin. wear the ring in the vagina, where these hormones are slowly absorbed into the body. This prevents pregnancy, similar to a birth control pill. wear the ring inside the vagina for three weeks, followed by one week when do not wear the ring; menstrual period occurs during the fourth week.

The ring is not noticeable, and it is easy for most women to insert and remove. take the ring out of the vagina for up to three hours if desired, such as during intercourse. Risks and side effects of the vaginal ring are similar to those of birth control pills.

Barrier Methods

Barrier contraceptives prevent sperm from entering the uterus. Barrier contraceptives include the condom, diaphragm, and cervical cap. A full discussion of barrier methods of birth control is available separately.

Male condom — The male condom is a thin, flexible sheath placed over the penis. To be effective, men who use condoms must carefully follow instructions for their use. Condoms are most effective when used with a vaginal spermicide.

Many people who choose another method of birth control (eg, pills) also use condoms to decrease their risk of getting sexually transmitted diseases.

Female condom — The female condom is worn by a woman to prevent semen from entering the vagina. It is a sheath made of polyurethane, and is prelubricated. wear it inside the vagina.

Diaphragm/cervical cap — The diaphragm and cervical cap fit over the cervix, preventing sperm from entering the uterus. These devices are available in latex (the Prentif cap) or silicone rubber (FemCap) in multiple sizes, and require fitting by a clinician. These devices must be used with a spermicide and left in place for six to eight hours after sex. The diaphragm must be removed after this period. However, the cervical cap can remain in place for up to 24 hours.

Spermicide — Spermicides are chemical substances that destroy sperm. They are available in most pharmacies without a prescription. Spermicides are available in a variety of forms including gel, foam, cream, film, suppository, and tablet.

Sterilization

Sterilization is a procedure that permanently prevents from becoming pregnant or having children. Tubal ligation (for women) and vasectomy (for men) are the two most common sterilization procedures. Sterilization is permanent, and should only be considered after discuss all available options with a healthcare provider.

Tubal ligation — Tubal ligation is a sterilization procedure for women that surgically cuts, blocks, or seals the fallopian tubes to prevent pregnancy. The procedure is usually done in an operating room as a day surgery. Women who have recently delivered a baby can undergo tubal ligation before going home.

Other Birth Control Methods

Some women and their partners cannot or choose not to use the birth control methods mentioned above due to religious or cultural reasons. Fertility-awareness based methods for preventing pregnancy are based upon the physiological changes during the menstrual cycle. These methods, also called "**natural family planning**," involve identifying the fertile days of the menstrual cycle using a combination of cycle length and physical manifestations of ovulation (change in cervical secretions, basal body temperature) and then avoiding sexual intercourse or using barrier methods on those days.

Emergency Contraception

Emergency contraception refers to the use of medication after unprotected intercourse to prevent pregnancy. Types of emergency contraception include the intrauterine device (IUD) or pills. use emergency contraception if forget to take birth control pill, if a condom breaks during sex, or if have unprotected sex for other reasons (including victims of sexual assault). An IUD can be inserted for use as emergency contraception, and is much more effective at preventing a pregnancy than pills. It is the best choice for emergency contraception and you can continue

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