

Contraception

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- **Condoms**

Male condom is a thin, stretchable sheath that covers the penis before contact and is removed after the penis is withdrawn from the partner's orifice after ejaculation.

Advantages

- Provide physical barrier for sperm
- Nonspermicidal latex condoms Provide a barrier for STIs particularly gonorrhea, Chlamydia, and trichomoniasis) and HIV.
- Condoms lubricated with N-9 are not recommended for prevention STIs, HIV.
- Typical failure rate in the first year of male condom use is 15%.

Condoms are made of latex rubber, polyurethane (strong, thin plastic), lamb cecum (natural skin condoms).



Female condom is a lubricated vaginal sheath made of polyurethane and has flexible rings at both ends. The closed end of the pouch is inserted into the vagina and is anchored around the cervix, and the open ring covers the labia. It is available in one size, intended for single use only. *Individuals should not use male condoms with the female condom, because the friction from both sheaths can increase the chance for tear.*

- Failure rate in the first year of female condom use is 21%.

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Female
Condom

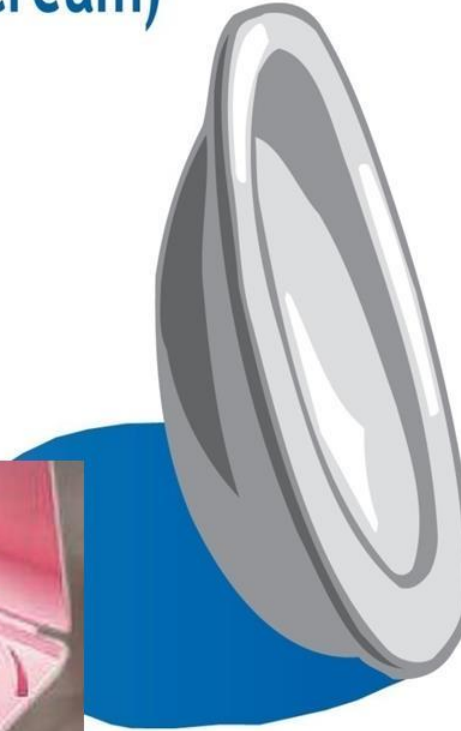
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- **Diaphragms**

Is a shallow, dome –
Shaped latex or
Silicone device
With a flexible rim
That covers the cervix

**Diaphragm -
(used with gel or
cream)**

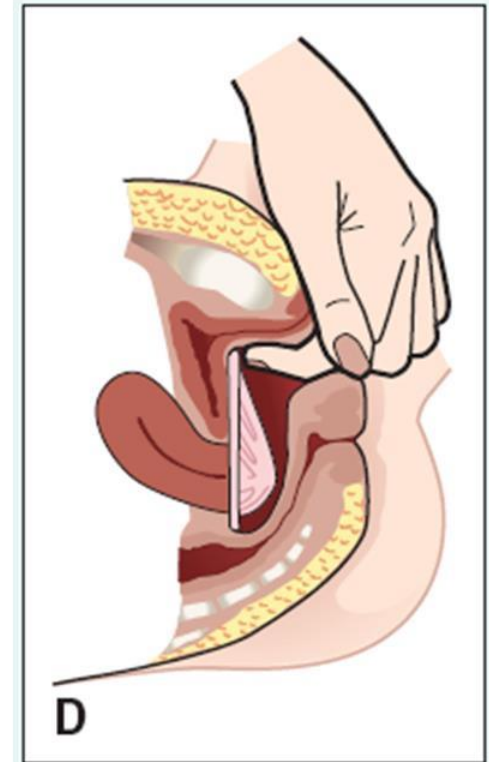
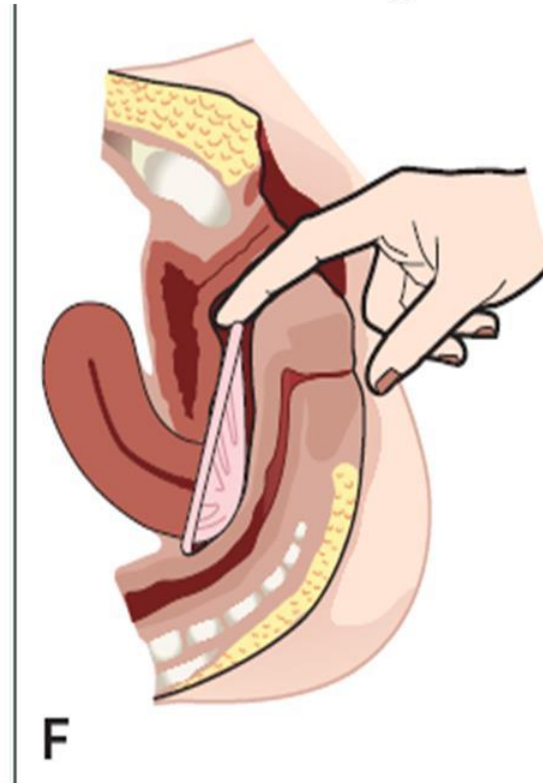
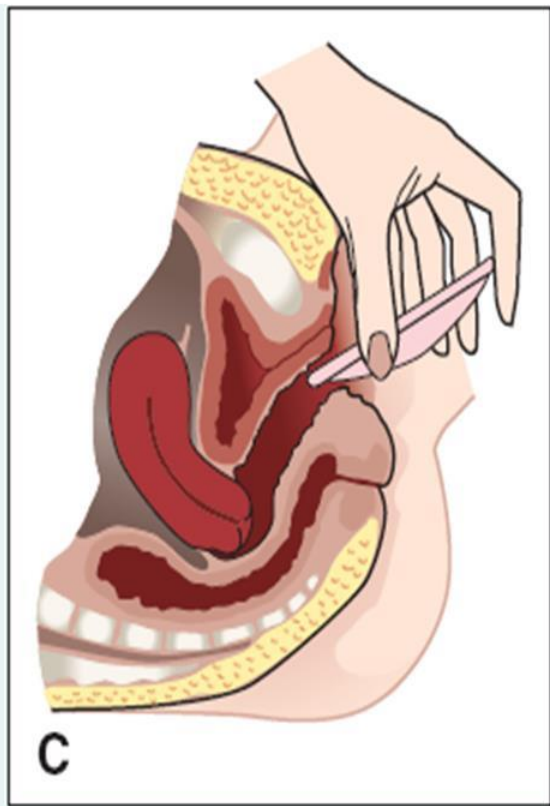


Barrier method:
The diaphragm fits
over the cervical
opening, preventing
sperm from entering
the uterus

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- Effectiveness of the diaphragm is less when used without spermicide.
- Available in many sizes, the diaphragm should be the largest size the woman can wear without her being aware of its presence.
- Failure rate of the diaphragm combined with spermicide is 16% in the first year of use.
- Not good option for women with poor vaginal muscle tone or recurrent urinary tract infections.
- Diaphragms are contraindicated for women with pelvic relaxation (uterine prolapse).

- Toxic shock syndrome (TTS), reported in very small numbers, can occur in association with the use of contraceptive diaphragm and cervical caps.
- To reduce risk for TTS (removal of the diaphragm 6 to 8 hours after intercourse, not using during menses).

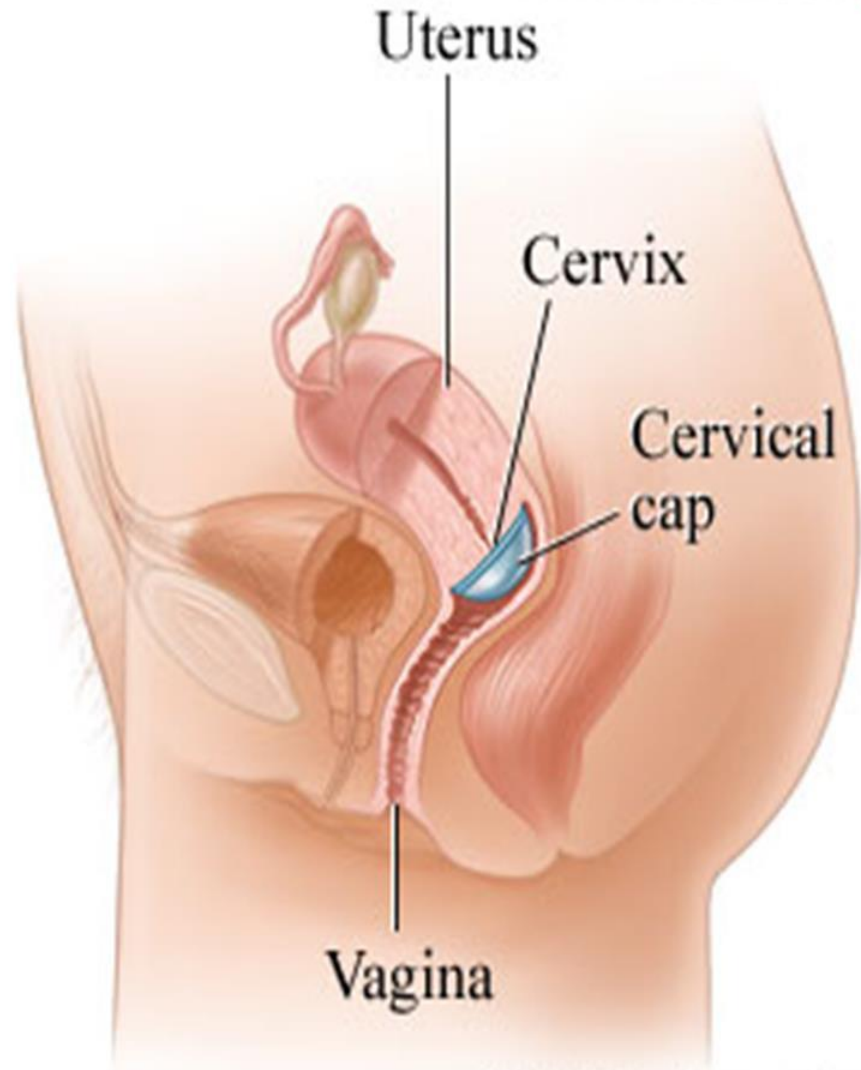
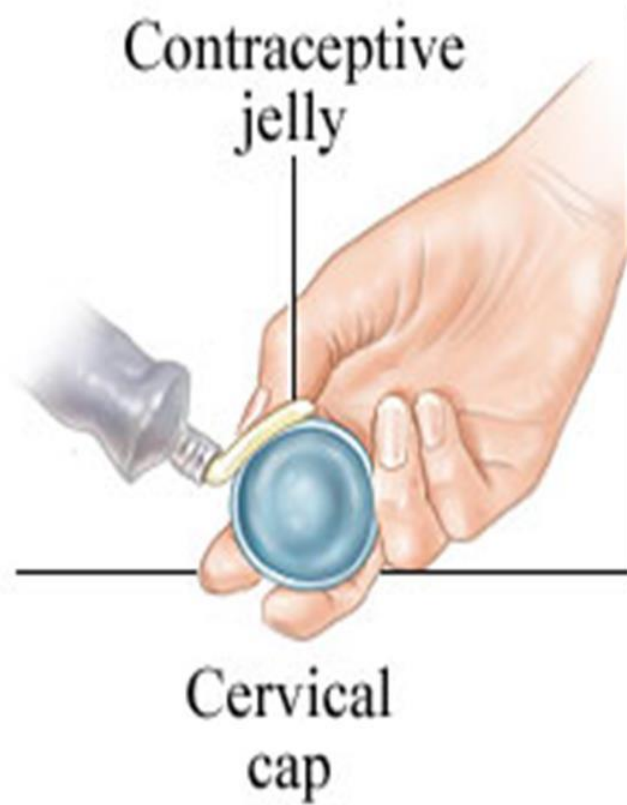


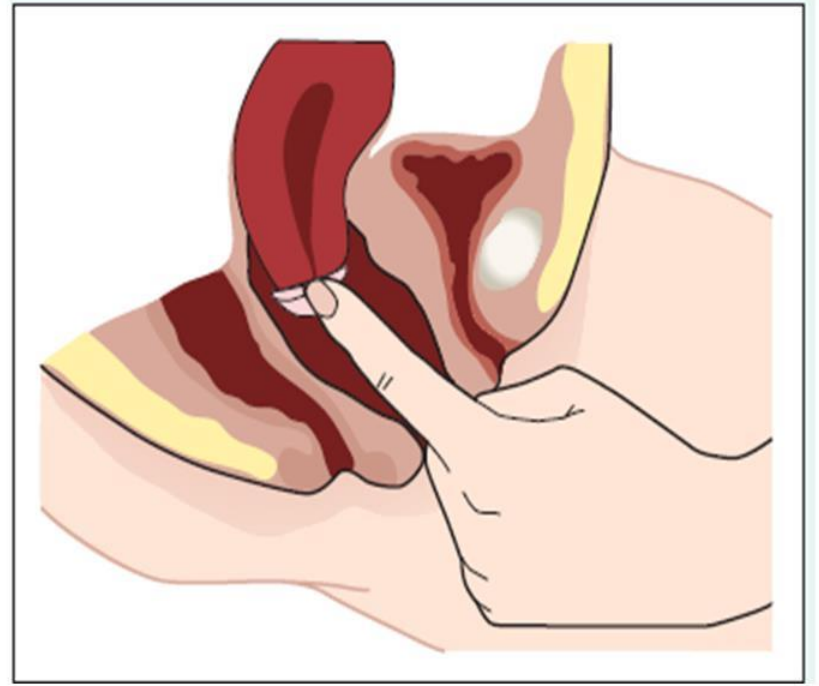
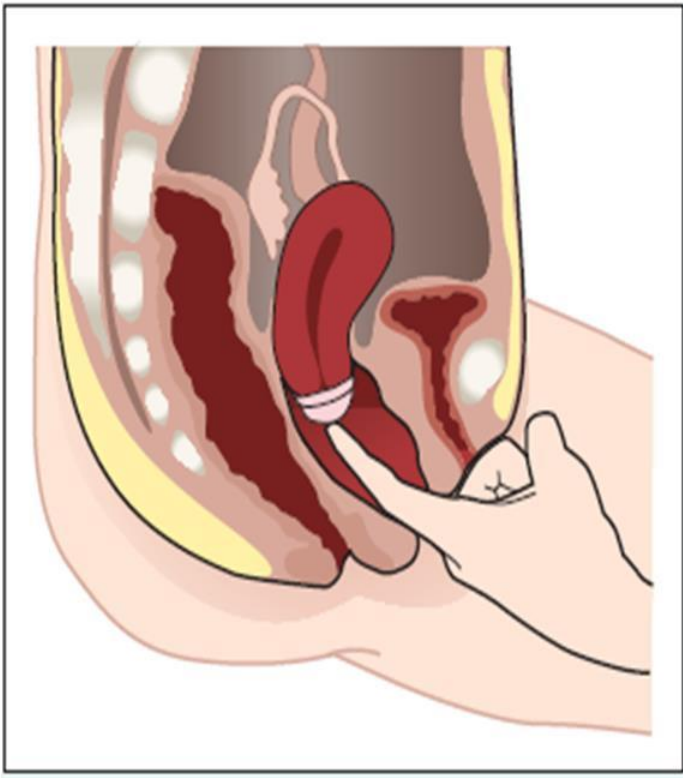
- **Cervical caps**

Made of rubber or latex- free silicone and have soft domes and firm brims. The cap fits snugly around the base of the cervix close to the junction of the cervix and vaginal fornices.

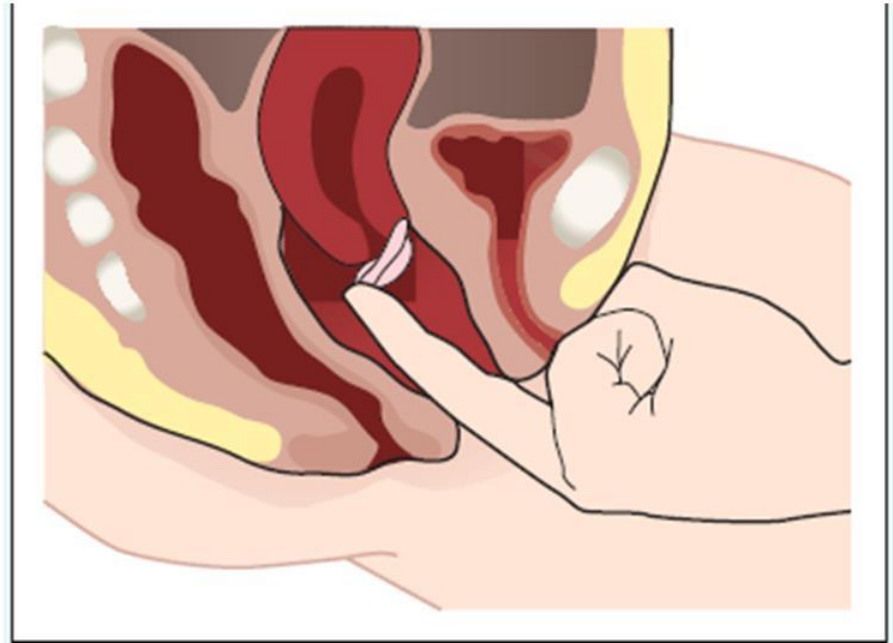
The cap should remain in place no less than 6 hours and not more than 48 hours at time. It is left in place at least 6 hours after the last act of intercourse. The seal provides a physical barrier to sperm, spermicide inside the cap adds a chemical barrier.

Not good option for women with a history of TSS, vaginal or cervical infections, those who experience allergic to the latex.





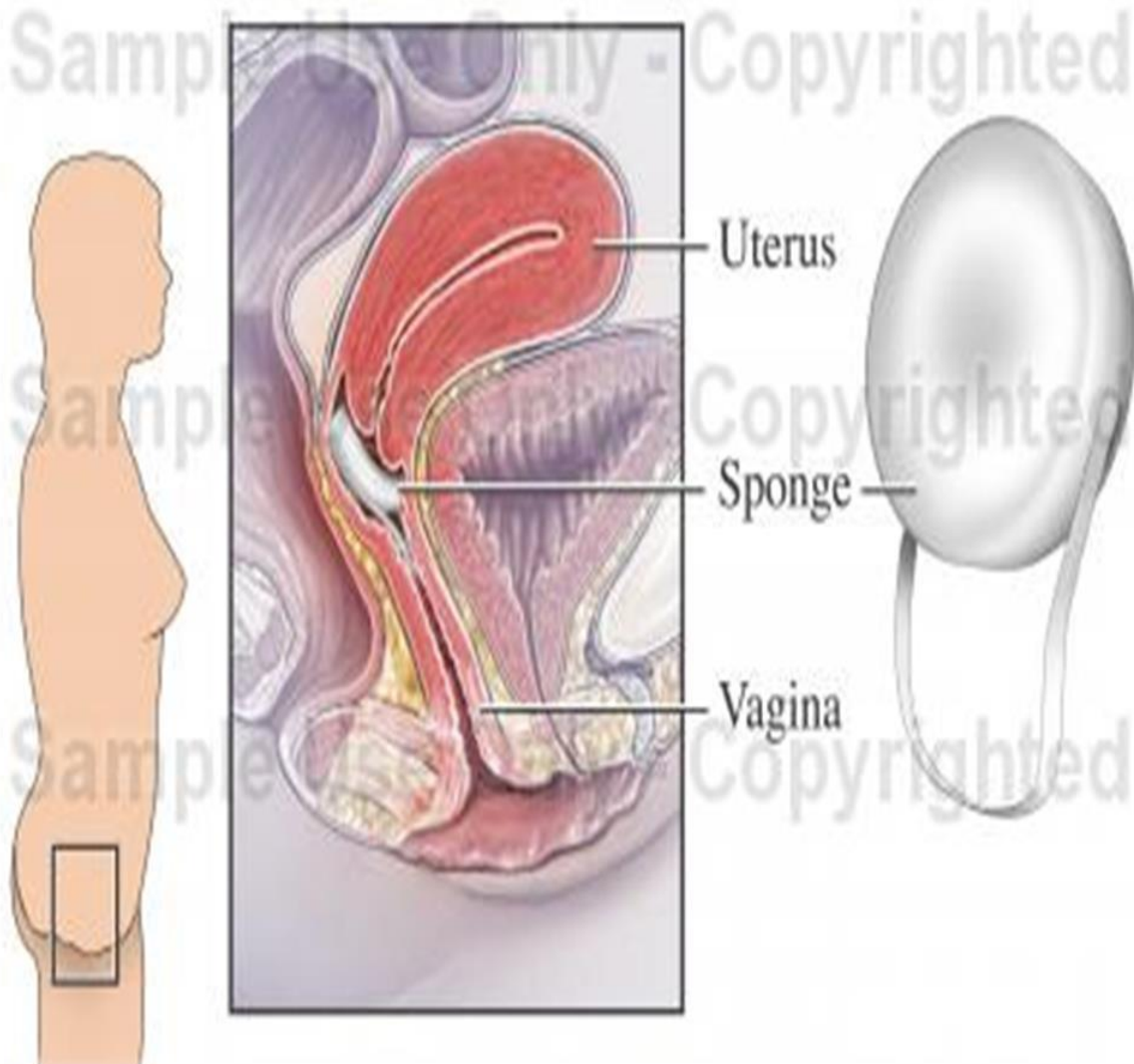
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- **Contraceptive sponge**

The vaginal sponge is a small, round, polyurethane sponge that contains nonoxynol-9 Spermicide. It is designed to fit over the cervix (one Size fits all) the side that is placed next to the cervix is concave for better fit. It provides protection for up to 24hours and Repeated instances of sexual intercourse.

- The sponge must be moistened with water before it is inserted.
- Wearing longer than 24 to 30 hours may put the woman at risk for TSS.
- Failure rates for these barriers in the first year of use are 16% in nulliparas and 32% in multiparous women.



4- Hormonal methods

Formulations include combined estrogen-progestin medications and progestational agents. The formulations are administered orally, transdermally, vaginally, by implantation, by injection, or via the intrauterine route.

- **Combined estrogen – progestin contraceptives**

Oral contraceptive. Regular ingestion of combined oral contraceptive pills (COCs) suppresses the action of the hypothalamus and anterior pituitary that inhibits production of FSH and LH, therefore follicles do not mature, suppressing ovulation.

Advantages

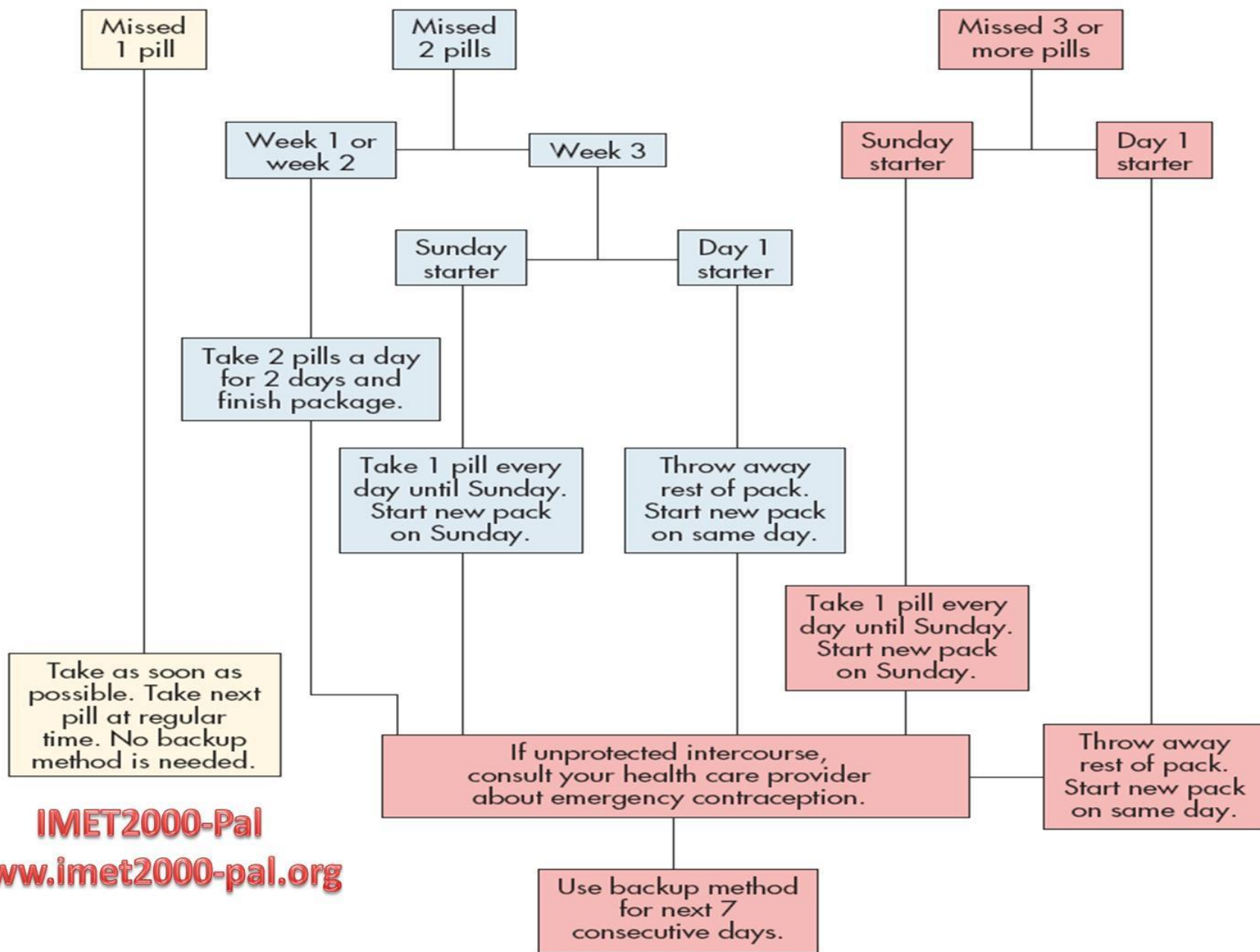
The noncontraceptive health benefits of COCs include:

- Decreased menstrual blood loss
- Decreased iron – deficiency anemia
- Regulation of menorrhagia and irregular cycles
- Reduce incidence of dysmenorrhea and PMS

- Provide protection against endometrial cancer and ovarian cancer
- Reduce the incidence of benign breast disease
- Improve acne
- Decrease the risk of ectopic pregnancy
- Safe option for nonsmoking women until menopause

Women taking COCs are examined before the medication is prescribed and yearly thereafter (weight, blood pressure, general physical and pelvic examination)

Flowchart for Missed Active Oral Contraceptive Pills



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Fig. 6-8 Flowchart for missed contraceptive pills. (Courtesy Patsy Huff, PharmD, Chapel Hill, NC.)

Contraindications

- History or presence of thromboembolic disorders
- Cerebrovascular or coronary artery disease
- Valvular heart disease
- Breast cancer
- Impaired liver function
- Liver tumor
- Women older than 35 years of age who smoke (more than 15 cigarettes per day)
- Severe hypertension
- Surgery with prolonged immobilization or any surgery on the legs and D/M (of more than 20 years' duration) with vascular disease.

Side effects of COCs are attributable to estrogen, progestin, or both.

- Stroke, MI, thromboembolism, hypertension, gallbladder disease, liver tumors.

Common side effects of estrogen excess include nausea, breast tenderness, fluid retention, and chloasma.

Side effects of progestin excess include increased appetite, tiredness, depression, breast tenderness, vaginal yeast infection, oily skin and scalp, hirsutism, and postpill amenorrhea.

Medications can reduce the effectiveness of oral contraceptives includes:

- anticonvulsants: barbiturates, phenytoin, Phenobarbital
- Systemic antifungal
- Antituberculosis drugs: rifampicin and rifabutin
- Anti – HIV protease inhibitors

Alert the woman to stop taking the pill and to report any of the following symptoms to the health care provider immediately. The word *ACHES* helps in retention of this list:

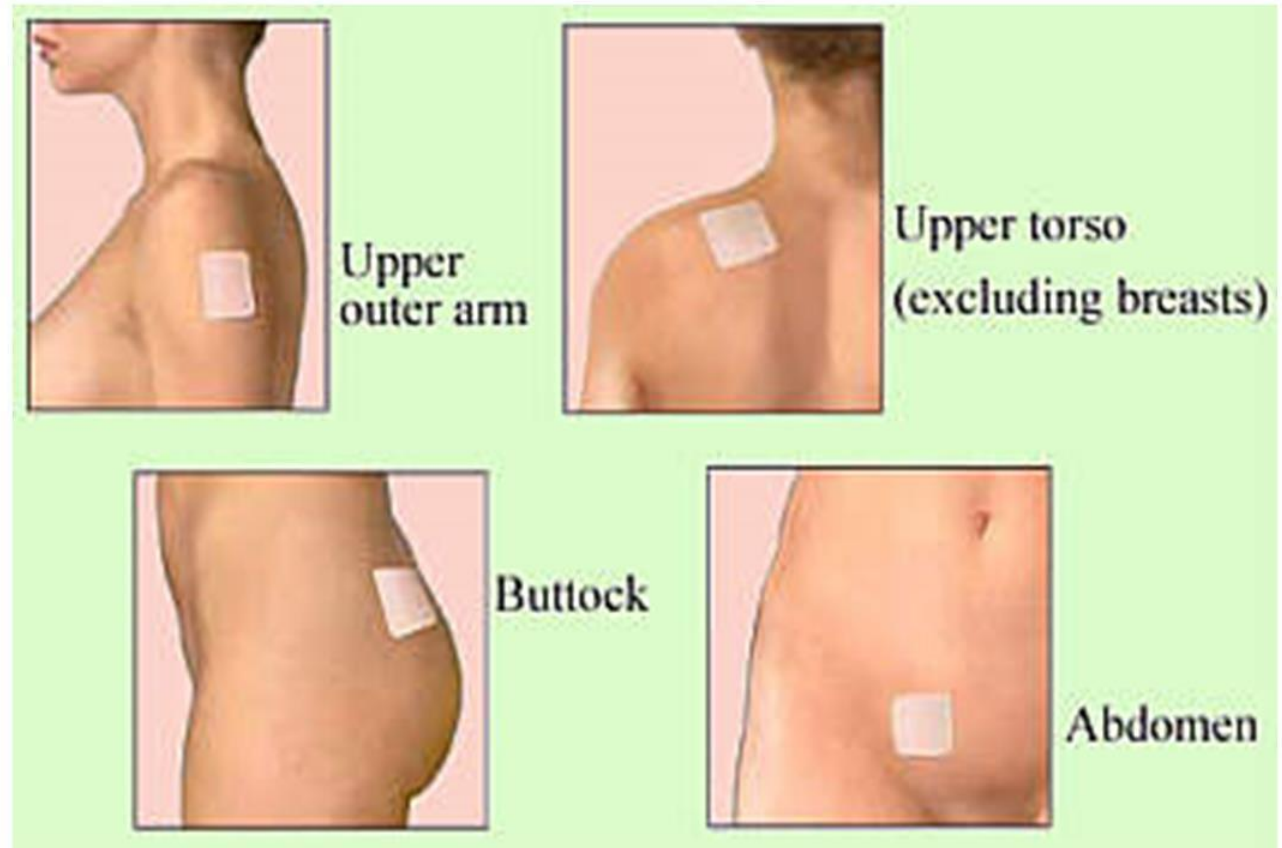
- A** — Abdominal pain may indicate a problem with the liver or gallbladder.
- C** — Chest pain or shortness of breath may indicate possible clot problem within lungs or heart.
- H** — Headaches (sudden or persistent) may be caused by cardiovascular accident or hypertension.
- E** — Eye problems may indicate vascular accident or hypertension.
- S** — Severe leg pain may indicate a thromboembolic process.

- قرار الإنجاب في ملعب الزوج لا الزوجة
- وداعًا للواقى الذكري.. حبوب منع حمل "آمنة" للرجال



Transdermal contraceptive system

Transdermal patch delivers continuous levels of progesterone and ethinyl estradiol.



Application is on the same day once a week for 3 weeks followed by a week without the patch. Withdrawal bleeding occurs during the “no patch” week.

Possible increased risk of venous thrombophlebotic conditions because total serum estrogen levels may be higher than with COCs.

Typical failure rate during the first year of use is 8%.

Vaginal contraceptive ring

It is a flexible ring worn in the vagina to deliver continuous levels of progesterone and ethinyl estradiol. The woman wears the vaginal ring for 3 weeks followed by a week without the ring. Withdrawal bleeding occurs during the “no ring” week.

Typical failure rate of the vaginal contraceptive ring is 8% during the first year of use.

The Nuva Ring ®

Nuva Ring



Hold the Nuva Ring ® between your thumb and index finger and squeeze the opposite sides together.

Gently push the folded ring into the vagina, up toward the cervix. Once inserted, the device should remain in place for as long as advised by your health care provider.



Progestin – only contraceptives.

Progestin – only methods impair fertility by inhibiting ovulation, thickening and decreasing the amount of cervical mucus, thinning the endometrium, and altering cilia in the uterine tubes.

- Oral progestins (minipill) .Failure rate of progestin – only pills (POPs) for typical users is approx. 8% in the first year of use.

Users often complain of irregular vaginal bleeding.

- Injectable progestins. Depot medroxyprogesterone acetate (DMPA or Depo- Provera), 150mgm is given IM in the deltoid or gluteus maximus muscle. DMPA is initiated during the first 5 days of the menstrual cycle and administered every 12 weeks or 3 months.

Side effects at the end of year include decreased bone mineral density, weight gain, lipid changes, irregular vaginal bleeding, increased risk of venous thrombosis and thromboembolism.

- Implantable progestins.

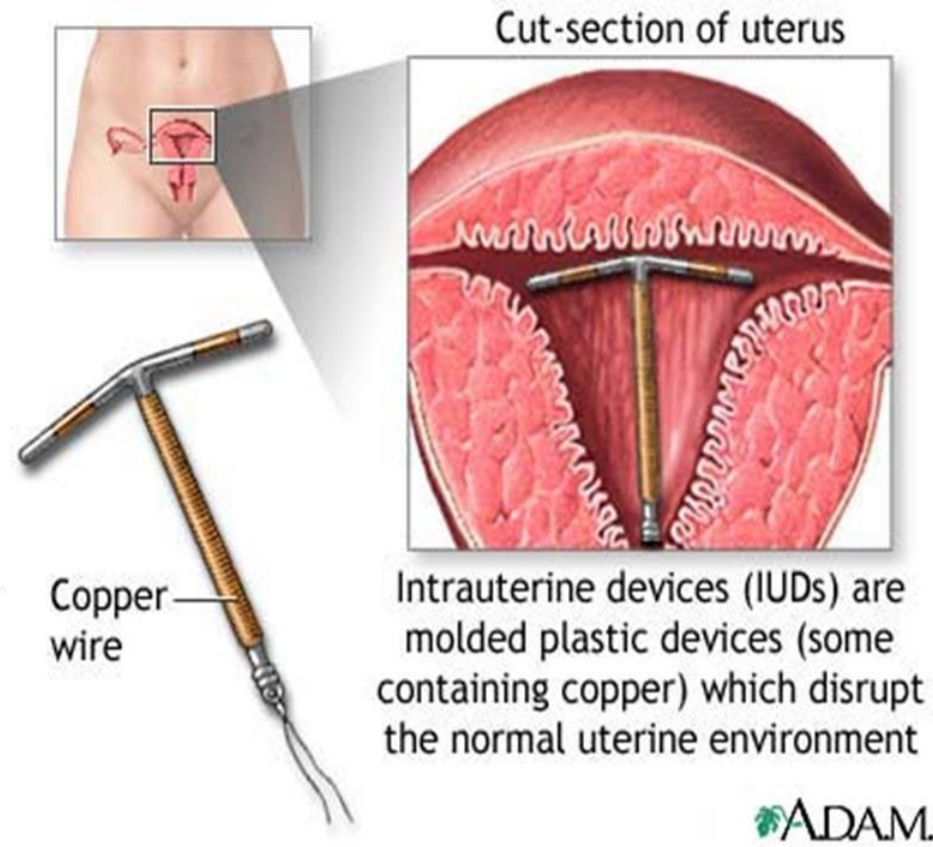


These implants contain a progestin hormone and are effective for contraception for at least 3 years. They must be removed at the end of the recommended time. Insertion and removal of the capsule are minor surgical procedures involving a local anesthetic, a small incision, and no sutures.

Irregular menstrual bleeding is the most common side effects. Less common side effects include headaches, nervousness, nausea, skin changes, and vertigo.

5- intrauterine devices

An IUD is a small, T-shaped Device with bendable arms For insertion through the Cervix. The woman should have had a negative pregnancy Cervical cultures to rule out STIs, and a consent form.



Disadvantages include increased risk for PID, infection, possible uterine perforation, unintentional expulsion of the device. IUDs offer no protection against HIV or STIs.

Typical failure rate in the first year of use of copper IUD is 0.8%

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6- sterilization

Refers to surgical procedures intended to render a person infertile and is the most commonly used method of contraception in USA.

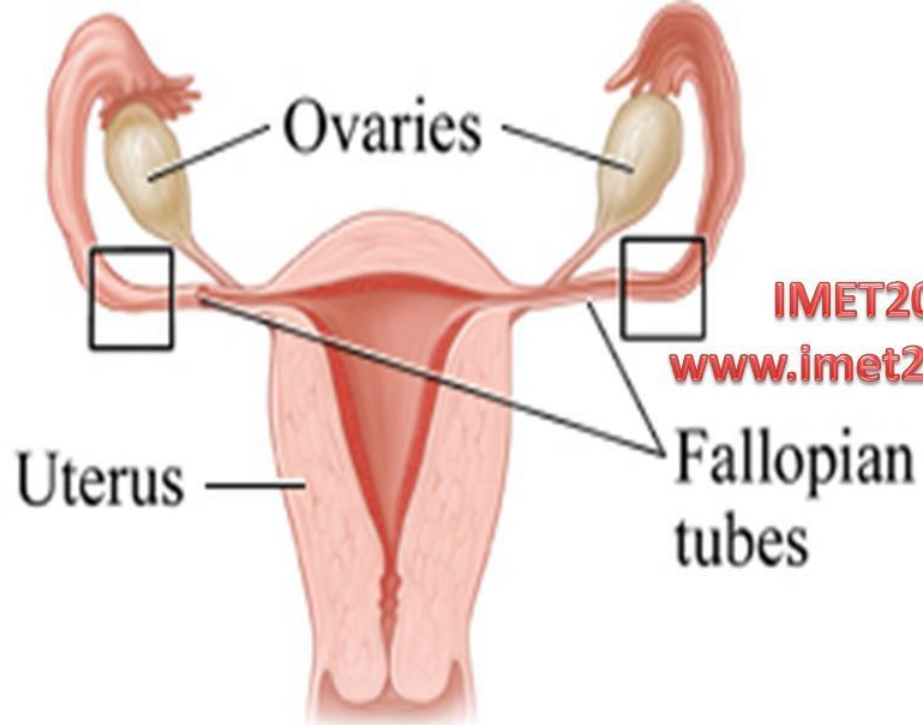
For the woman, the uterine tubes are occluded

For the man, both of the vas deferens are occluded.

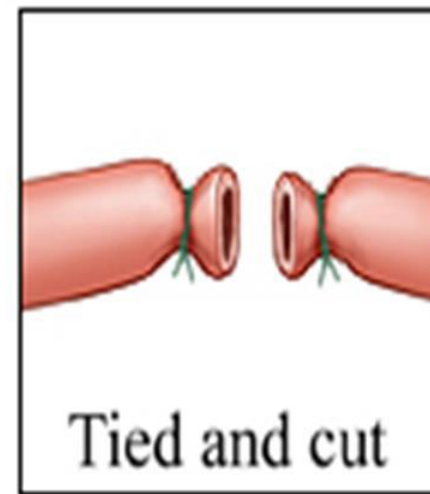
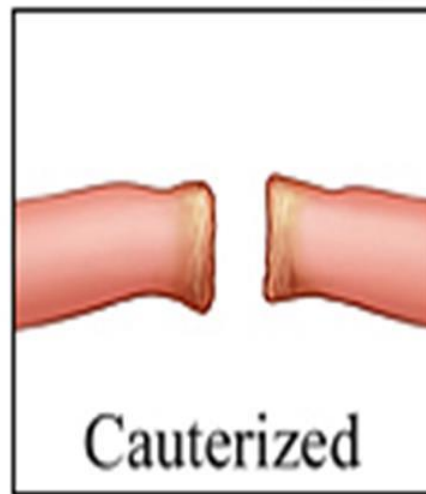
Female sterilization. Bilateral tubal ligation is usually performed immediately after childbirth.

Tubal reconstruction. Sterilization reversal, is costly, difficult, and uncertain.

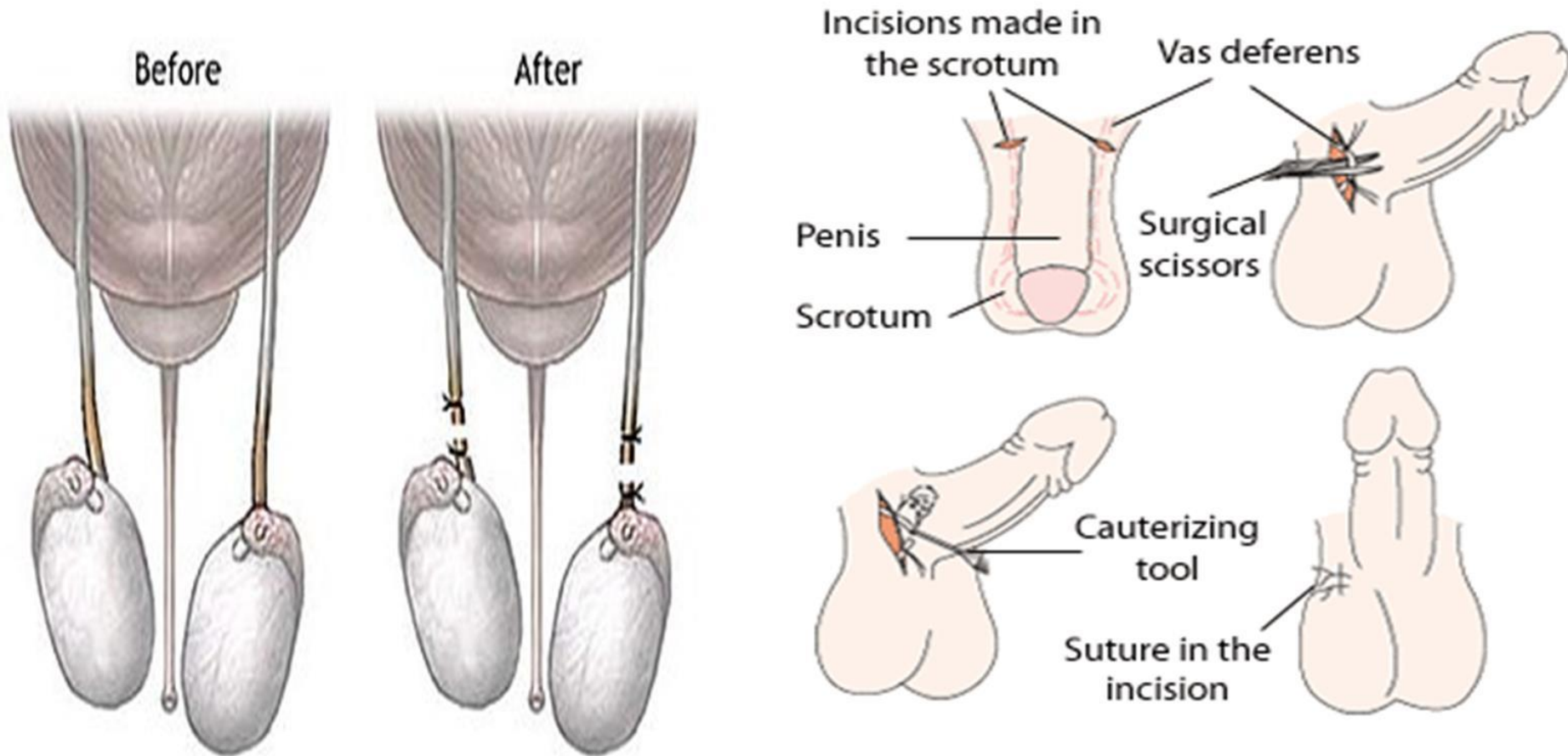
Risk of ectopic pregnancy after tubal reanastomosis ranges from 1% to 7 %.



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Male sterilization. Vasectomy is the sealing, tying, or cutting of each vas deference so that the sperm cannot travel from the testes to the penis.



Vasectomy reversal. Microsurgery to reanastomosis (restore tubal continuity) the sperm ducts can be accomplished successfully in 75% to 100% of cases.

Breast feeding: lactational amenorrhea method

When the infant suckles at the mother's breast, a surge of prolactin hormone is released, which inhibits estrogen production and suppresses ovulation and the return of menses.

LAM works best if the mother is exclusively or almost exclusively breastfeeding. Frequent feedings at intervals of less than 4 hours during the day and no more than 6 hours.

Thanks