



Γιατροί του Κόσμου
Όπου υπάρχουν άνθρωποι...

Mother & Child



MSD for mothers

Family Planning

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DEFINITION

- ▶ Family planning involves the provision of information and resources to every person, so that he/she can make voluntary, responsible and, ultimately, conscious choices regarding reproduction.



Family planning objectives

Family planning aims to:

- ▶ Solve demographic problems.
- ▶ Reduce the number of abortions.
- ▶ Treat fertility problems.
- ▶ Prevent sexually transmitted diseases.
- ▶ Promote maternal and child health.



Family planning focuses on helping to:

- ▶ Prevent unwanted births.
- ▶ Induce desired births.
- ▶ Determine the number of children in a family.
- ▶ Set the time interval between pregnancies.
- ▶ Control the time of pregnancy depending on the age of the parents.



History

- ▶ In the USA, Margaret Sanger founded the first **Birth Control League** in 1921, helping couples become parents, assisting those who suffered from infertility, as well as providing guidance for premarital sexual relations.
- ▶ In 1930, the first **International Birth Control Conference** took place in Zürich with the participation of representatives from 12 countries. The objectives of the conference were mainly contraception and infertility. After World War II, the **International Planned Parenthood Federation (IPPF)** was founded.



History

- ▶ In 1968, the **International Conference on Human Rights** proclaimed the right of parents to choose the number and timing of childbirths, as well as their right to education and information in this area.
- ▶ Finally, in 1969 the **U.N.** decided that member-states must ensure not only the necessary knowledge, but also the appropriate means to control fertility.



History

- ▶ In Greece, Professor N. Louros founded the first Greek **Family Planning Society** in 1973 based at Alexandra Hospital, while in 1976, the **Family Planning Society** was founded and in 1985 Greece was first represented in the International Planned Parenthood Federation.
- ▶ In 1980, family planning was legislated in Greece.



Family planning centers in Greece

Nowadays, there are approximately 40 family planning centers in Greece, which provide:

- ▶ Education and counseling on family planning.
- ▶ Contraceptive methods.
- ▶ Treatment for fertility problems.
- ▶ Education concerning sexual relations.
- ▶ Prevention of malignancies.
- ▶ Counseling on marriage.
- ▶ Counseling on adoption.



Anatomy of female genital organs

External genital organs

- Mons pubis
- Labia majora
- Labia minora
- Clitoris
- Urethral opening
- Hymen
- Female glands



Anatomy of female genital organs

▶ Internal genital organs

- Vagina
- Uterus
- Fallopian tubes
- Ovaries



Anatomy of male genital organs

The male genital organs are the following:

- Penis
- Testes
- Epididymis
- Deferent duct
- Seminal vesicles
- Prostate gland



Process of conception

- ▶ Fertilization is the process during which a sperm cell encounters under suitable conditions an egg cell, released from the ovaries, and they fuse together.
- ▶ Fertilization usually takes place in the fallopian tubes.
- ▶ The fertilized egg, proliferating continuously, then moves towards and attaches itself to the uterus, a process called implantation. Once implantation is achieved, gestation begins.



Contraception

- ▶ Contraception is any method or device used to prevent pregnancy.



Criteria for selecting a method of contraception

- ▶ Tolerance
- ▶ Effectiveness
- ▶ Number of sexual partners / protection against sexually transmitted diseases
- ▶ Cost / access
- ▶ Motivation and self-discipline
- ▶ Safety / risk
- ▶ Moral, religious, personal, family and lifestyle reasons.



Methods of contraception

Methods of contraception include:

- ▶ hormonal contraceptives
- ▶ barrier method
- ▶ intrauterine coils
- ▶ behavioral methods
- ▶ sterilization



Forms of hormonal contraceptives

- ▶ Tablets (estrogens / progestogens)
- ▶ Per os progesterone
- ▶ Injectable progesterone
- ▶ Subcutaneous steroid implants
- ▶ Vaginal rings releasing estrogens / progestogens or progestogens only
- ▶ Intrauterine devices releasing progestogen
- ▶ Morning-after pill (emergency contraception)
- ▶ RU 486 (abortion pill / emergency contraception)



Contraceptive tablets

- ▶ Contraceptive tablets may contain a combination of estrogen - progesterone or progesterone only (mini pill).
- ▶ Contraceptive tablets prevent ovulation, endometrial growth and the liquefaction of cervical mucus.
- ▶ Before starting treatment with contraceptive pills, a proper medical and gynecological history is required, and possibly certain tests, such as breast palpation, a PAP test and blood tests (blood coagulation, cholesterol, liver function indices).



Contraceptive tablets

- ▶ A pack contains 21 pills; one pill is taken per day. The woman then stops taking the pill and menstruation begins 3-4 days later. On the eighth day after stopping, she may take the first pill of the next pack.
- ▶ Nowadays, 28-pill packs are also available, of which the first 7 pills do not contain any hormone, so as to facilitate the proper taking of pills. There are also tablets containing a combination of estrogens and Cyproterone, and are used by adolescent girls with acne, hirsutism (excess hair growth), PCOS and menstrual disturbances.



Contraceptive tablets





Side effects of taking the tablets

- ▶ Dizziness
- ▶ Blood clots
- ▶ Nausea and vomiting
- ▶ Headache
- ▶ Partial weight gain
- ▶ Intermenstrual bleeding
- ▶ Breast tension
- ▶ Decreased libido



Advantages

- ▶ Low dosage
- ▶ Safety
- ▶ Effectiveness
- ▶ Medical benefits (menstrual cycle regulation, treatment of painful menstruation, hirsutism and heavy menstrual bleeding)



Contraindications of contraceptive tablets

Absolute contraindications

- ▶ Undiagnosed bleeding
- ▶ Liver disease
- ▶ Hypertension
- ▶ Hyperlipidemia
- ▶ History of thrombocytopenic disease
- ▶ Focal migraine, which may also be related to vision disorders
- ▶ Sickle cell anemia
- ▶ Forced immobilization
- ▶ Estrogen-dependent tumors



Relative contraindications

- ▶ Collagen diseases
- ▶ Coagulation disorders
- ▶ Porphyria
- ▶ Smoking
- ▶ Epilepsy
- ▶ Obesity
- ▶ Juvenile diabetes
- ▶ Severe heart disease
- ▶ Simultaneous use of medications such as corticosteroids, barbiturates, ampicillin.



Injectable progesterone

- ▶ These are injections of medroxyprogesterone which prevent ovulation and are administered every three months intramuscularly at a dose of 150mg.



Injectable progesterone





Subcutaneous implant

- ▶ This is a single rod of 4cm in length and 2mm in diameter, which is placed following local anesthesia under the surface of the inside of the arm and may remain there for 3-5 years.





Transdermal patches

- ▶ These patches are worn on a woman's abdomen, torso or buttocks for 3 weeks, i.e. as long as a menstrual cycle, and replaced on a weekly basis.
- ▶ They contain small quantities of a combination of estrogens and progesterone.



Transdermal patches

Wearing the Patch

The contraceptive patch can be worn on four places on your body.



Abdomen



Upper Outer Arm



Upper Torso
(front or back, but not your breast)



Buttocks

Source: Ortho-McNeil Pharmaceutical, 2001.



Vaginal ring

- ▶ This is a small ring which is inserted into the vagina by the woman herself, remains in place for 3 weeks and is removed when menstruation starts. It is considered a safe method as long as it is placed correctly.



Vaginal ring



Step 2: Choose a position that is comfortable for you.



Step 3: Press the opposite sides of NuvaRing® together and gently insert it.



Step 4: NuvaRing® can be positioned anywhere inside the vagina.



Morning-after pill / emergency contraception

- ▶ Administration of one or two tablets of progesterone (levonorgestrel) or antiprogestogen (ulipristal) as soon as possible and no later than 72 hours after sexual intercourse.





Ru 486 (Mifepristone)

- ▶ Essentially, it is an abortion pill.
- ▶ One pill is administered as soon as possible and no later than 120 hours after sexual intercourse.



Barrier methods

- ▶ Male condom
- ▶ Female condom
- ▶ Diaphragm
- ▶ Cervical cap
- ▶ Contraceptive sponge containing spermicide



Male condom

- ▶ A male condom is placed on the erect penis and is a natural barrier preventing sperm cells from entering the vagina.
- ▶ The failure rate of this method ranges from 5-15%.
- ▶ It has the advantage that, to a certain extent, it offers some protection against sexually transmitted diseases, but it can also cause allergies and prevent full satisfaction, while its placement requires the interruption of sexual activity.



Male condom

Moreover, the following must be avoided while using a condom:

- ▶ Oils / emulsions
- ▶ Vaseline
- ▶ Antifungal creams
- ▶ Topical estrogens



Male condom





Female condom

- ▶ It is placed inside the vagina before intercourse and secured in place via two rings, one at its beginning and one at its end.
- ▶ The inner ring is inserted deep into the vagina, while the outer ring remains outside the vagina. It is removed after intercourse.



Female condom





Female condom





Diaphragm

- ▶ This is a shallow cup with a flexible ring, whose anterior is positioned behind the pubic symphysis and posterior rests against the posterior vaginal vault.
- ▶ It comes in various sizes; therefore, a pelvic exam performed by a gynecologist will determine the appropriate size. It can be used along with spermicide.
- ▶ It is placed before intercourse and must remain in place for at least 6-8 hours after intercourse.



Contraceptive sponge with spermicide

- ▶ A contraceptive sponge containing spermicide can be inserted into the vagina as early as 24 hours before intercourse. It is placed over the cervix and is removed no sooner than 6 hours after intercourse.
- ▶ Success rates range from 12% (in women who have not given birth) to 24%.



Contraceptive sponge with spermicide





Cervical cap

- ▶ It is placed over the cervix before intercourse and is removed no sooner than 6-8 hours after intercourse.
- ▶ The cap is cervix-shaped, hence it does not fit properly on cervices with irregular shapes or scars.



Cervical cap

- ▶ There are various sizes of cervical caps available; a gynecologist will determine the right one.





Intrauterine coils

- ▶ These are small, T-shaped devices that contain copper and are inserted in the uterus, preventing embryo implantation.





Intrauterine coils

- ▶ They are placed by a gynecologist and can remain in place for several years (3-9 years), depending on the device.
- ▶ Certain coils which contain progestogen offer highly effective contraception.



Behavioral methods

- ▶ Rhythm method
- ▶ Body temperature method
- ▶ Checking of cervical mucus
- ▶ Withdrawal method
- ▶ Sexual abstinence
- ▶ Breastfeeding



Rhythm method

- ▶ This is a simple and minimally effective method.
- ▶ It relies on sexual abstinence from day 8 to day 19 for women with a menstrual cycle of 26-32 days.



Body temperature method

- ▶ One day prior to ovulation, a woman's body temperature drops by 0.2-0.4° C, while after ovulation it rises by 0.4-0.5° C and remains so until 2-3 days before menstruation.
- ▶ Intercourse must be avoided around ovulation to prevent pregnancy.
- ▶ Body temperature can be affected by many factors (viral infections, working during the night, etc).



Checking of cervical mucus

- ▶ Before ovulation, cervical mucus is fluid and clear, while afterwards it becomes thick and turbid.



Withdrawal method

- ▶ The man withdraws his penis from the vagina before ejaculation.
- ▶ This method depends on the man's self-control and ability to withdraw in time.



Family planning objectives

- ▶ Abstinence

Complete abstinence from sexual intercourse.

- ▶ Breastfeeding

Breastfeeding causes anovulation and amenorrhea.

Exclusive breastfeeding during the first 6 months offers contraception with a success rate of up to 98%. In the case of non-exclusive breastfeeding, the rate drops significantly.

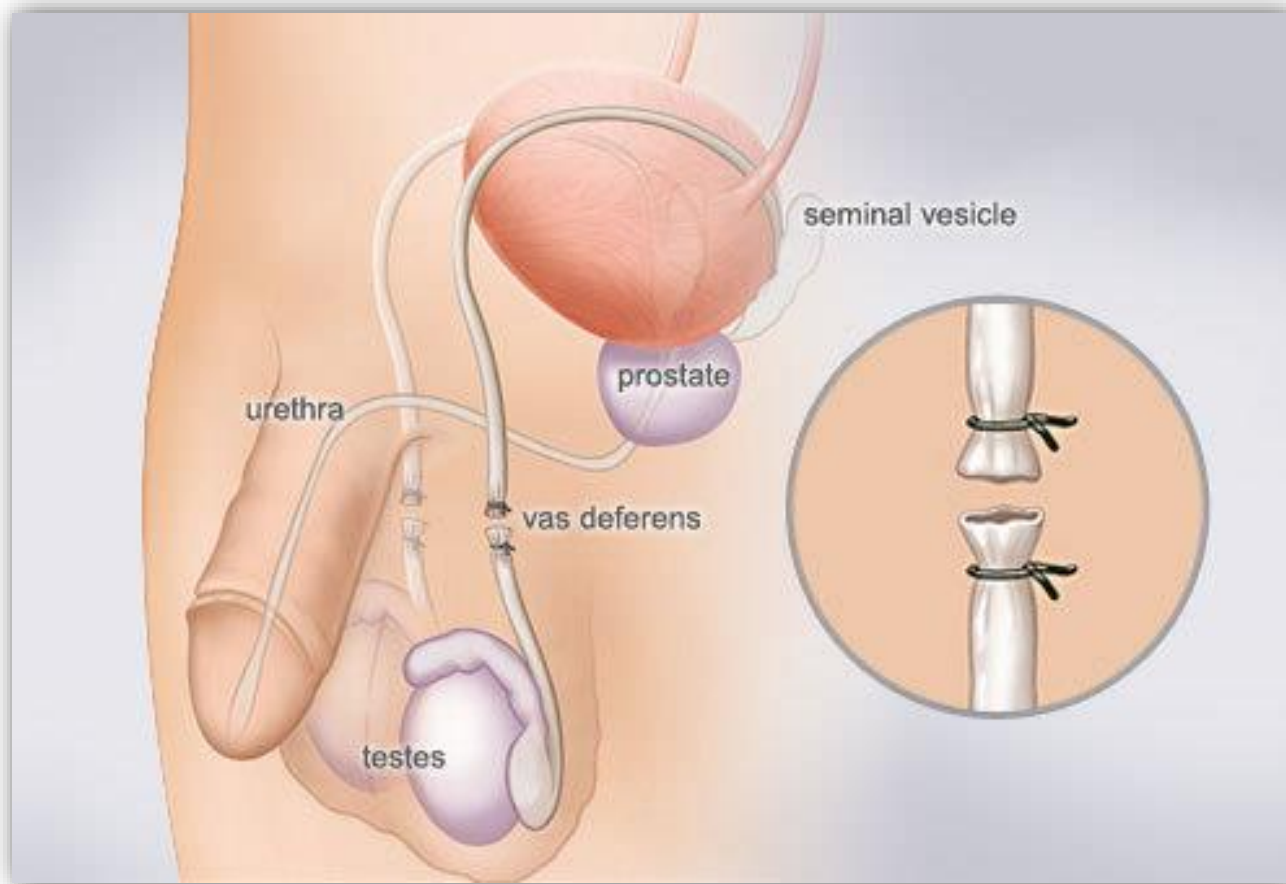


Sterilization

- ▶ It involves surgery and offers permanent contraception.
- ▶ It can be performed both in men and women.
- ▶ A vasectomy is performed in men and a tubal ligation is performed in women.

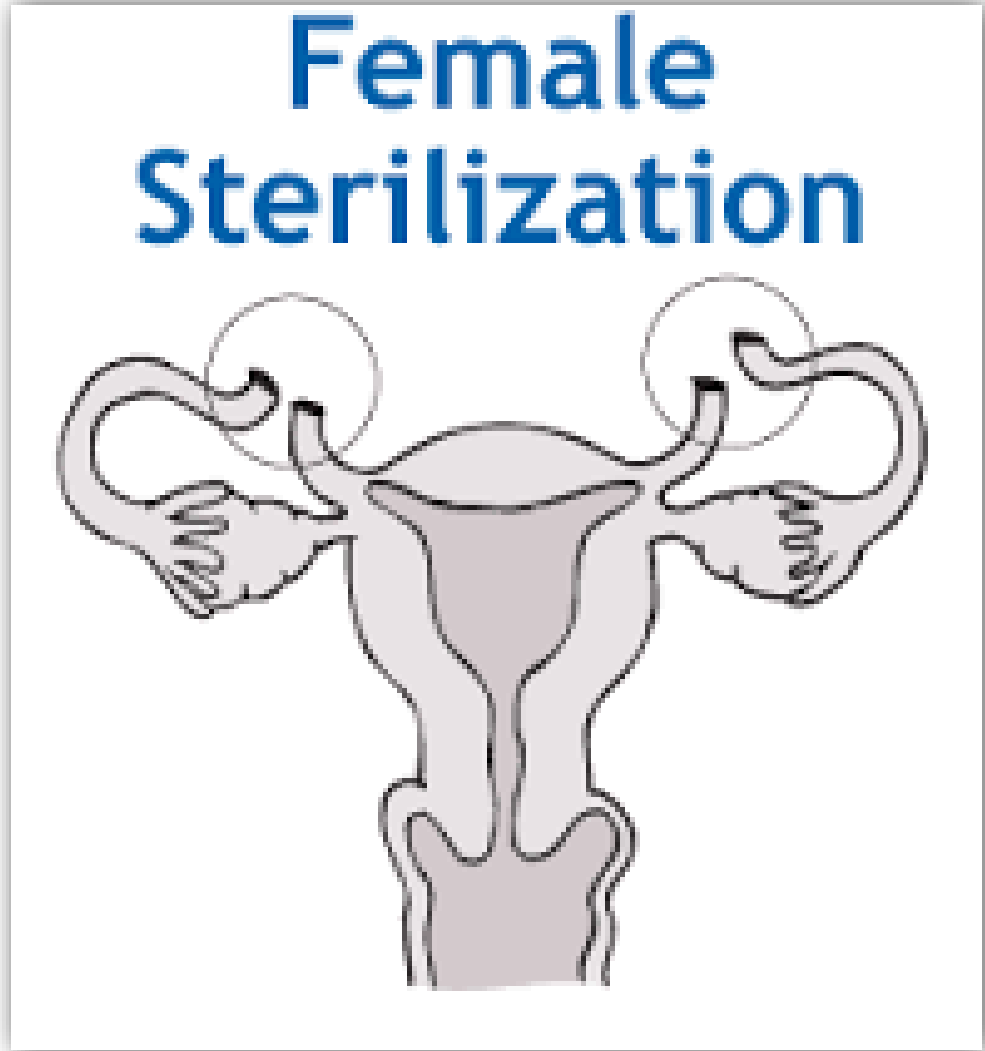


Male sterilization





Female sterilization





Infertility

- ▶ Infertility is defined as a couple's inability to conceive for at least 1 year during which the couple have had normal sexual relations.
- ▶ It occurs in 15% of couples and may be due to one or more factors stemming from the woman, the man or both.



Causes of infertility

- ▶ Disorders of the fallopian tubes / peritoneum / ovaries (20-25%)
 - ▶ Inflammations (gonococcus and chlamydia)
 - ▶ Postoperative adhesions
 - ▶ Endometriosis
- ▶ Ovulation disorders (15-20%)
 - ▶ Damage of the hypothalamic - pituitary - gonadal axis
 - ▶ Thyroid conditions
 - ▶ Adrenal gland conditions
 - ▶ Medications



Causes of infertility

- ▶ Cervical disorders (10%)
 - ▶ Inflammations (chronic inflammations, cervicitis, Mycoplasma induced cervicitis)
 - ▶ Anatomical causes (cervical surgery, violent cervical abrasions leading to mucus destruction)
 - ▶ Immunological causes (antisperm antibodies)
- ▶ Uterine disorders (9%)
 - ▶ Asherman's syndrome, polyps, fibroids
- ▶ Vaginal disorders (rare)
 - ▶ Dyspareunia (painful intercourse), inflammations, stenosis - diaphragms



Causes of infertility

▶ Male disorders (30-50%)

They cause a lack or small quantity of sperm, poor sperm motility or sperm with abnormal shape. They may be caused by endocrine abnormalities (Kallmann syndrome), abnormal testicular function (due to cryptorchidism, varicocele, inflammations, trauma, gene / chromosomal diseases, medications, radiation, idiopathic diseases) or ejaculatory duct obstruction.



Diagnostic approach (Woman)

- ▶ Detailed medical history of both partners
- ▶ Clinical examination of both partners (body weight, body hair, breasts)
- ▶ Pelvic exam
 - ▶ vaginal - cervical inspection
 - ▶ bimanual pelvic exam
 - ▶ transvaginal ultrasound
 - ▶ Huhner test (sperm penetrability of cervical mucus test)
 - ▶ Hysteroscopy, hysterosalpingography, laparoscopy
 - ▶ Hormonal / endocrine testing
 - ▶ Body temperature measurement
 - ▶ Endometrial biopsies
 - ▶ Chromosomal / gene testing



Diagnostic approach (Man)

- ▶ Spermogram (semen analysis)
- ▶ Hormonal / endocrine testing
- ▶ Semen culture
- ▶ Testicular biopsy
- ▶ Chromosomal / gene testing
- ▶ Immunological testing
- ▶ Ultrasound



Treatment

- ▶ Treatment depends on the cause of infertility, the expected treatment outcome in relation to the desired waiting time, the woman's age, and can consist of:
 - ▶ Medication (for inflammations, thyroid disorders)
 - ▶ Surgery (adhesions, polyps, fibroids)
 - ▶ Assisted reproduction (hormonal therapy, in vitro fertilization with or without sperm or egg donation, surrogate pregnancy)



Education concerning sexual relations

▶ At most centers, an expert psychologist is available who can provide counseling on sexuality and sexual behaviors. In all cases, there is a doctor who can advise individuals regarding safe sexual relations and provide information on contraception and protection against sexually transmitted diseases.



Sexually transmitted diseases

- ▶ Bacterial etiology
 - ▶ chancroid
 - ▶ chlamydia
 - ▶ granuloma inguinale
 - ▶ gonorrhoea
 - ▶ syphilis
- ▶ Parasitic etiology
 - ▶ pediculosis pubis
 - ▶ scabies
- ▶ Protozoan etiology
 - ▶ trichomoniasis
- ▶ Viral etiology
 - ▶ herpes
 - ▶ HPV infection
 - ▶ molluscum contagiosum
 - ▶ hepatitis B
 - ▶ hepatitis C
 - ▶ HIV
- ▶ Fungal etiology
 - ▶ candidiasis



Sexually transmitted diseases

- ▶ Sexually transmitted diseases can cause inflammations, cervical cancer and even death.
- ▶ They can also create problems during childbirth or be transmitted to infants.



Sexually transmitted diseases

- ▶ For this reason, the prevention and protection against sexually transmitted diseases are primary concerns of those involved in family planning.



Sexually transmitted diseases

- ▶ The use of condoms plays the most important role in the protection against sexually transmitted diseases. Of course, other barrier methods of contraception also offer protection to some extent. Family planning centers also offer information regarding prenatal screening and its importance.



Prevention of malignancies

- ▶ At family planning centers, women can find information about the PAP test (such as when and how it is performed), which is a preventive measure against cervical cancer; in most cases, they can also have a PAP test performed.
- ▶ Women can also be informed about breast cancer, the importance of breast palpation, how and when palpation is performed, as well as the role of mammograms in the early diagnosis of breast cancer.



Genetic counseling

- ▶ Some family planning centers have a geneticist at hand who can advise couples on gene / chromosome abnormalities that they or any of their children have or may have.



Counseling on marriage and adoption

- ▶ With regard to marriage, future parents can be informed about parental responsibilities and the role of each parent within the family. Advice is given regarding children growing up in single-parent families.
- ▶ Counseling is also provided to couples who wish to adopt a child on ways of adoption, requirements, the exact legislation in place and the procedures that should be followed.



Conclusion

- ▶ In conclusion, the role of family planning is of the utmost importance as it contributes to the health of mother and child, reducing unwanted pregnancies and, therefore, abortions. It helps treat infertility, prevent venereal diseases and generally aims to help create families with happy parents and desired, healthy and happy children.



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Images

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