

Hormonal contraceptives

Gender puberty in a woman will manifest development secondary signs and the onset menstrual cycle . All changes which _ complete his picture they are conditioned fluctuating by the secretion of **estrogens** and **gestagens** from the ovaries .

Endocrine function ovaries is controlled regular cyclical by washing out pituitary hormones : **FSH** (follicle stimulating hormone) and **LH** (luteinizing hormone). Macroscopically it is for beginning cycle considered menstruation (bleeding) conditional peeling upper ones layers uterine mucous membrane . 6th day rises secretion of FSH. Under his influence is running out starting up maturation follicle in the ovaries . Thecal cells follicles they produce estrogens . In the middle cycle they rise also LH levels . A follicle it snaps and releases egg into the cavity abdominal to near the fallopian tube . Cavity the follicle fills up blood and fluid (*corpos haemorrhagicum*) later the cavity will fill proliferating cells theca (*corpus luteum*). At the same time rises production progesterone .

Endometrium in the first phase under the influence estrogens considerably proliferates (*phase proliferative*), after ovulation with an increase progesterone are increasing glands and the mucous membrane is ready for nidation eggs (*stage secretory*). If fertilization does not occur separation occurs _ upper endometrial layers - menstrual bleeding .

Estrogens

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Progestogens

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Contraception

History contraception

- Effort separate sexual life from conception the child is old like humanity itself - legendary biblical Onán - " anytime ". entered the woman , let out seed on the earth , that it should not beget offspring " (Genesis 38.9) - mentioned biblical the hero does so stood inventor never masturbation , but the oldest contraceptive methods - **intermittent intercourse** .
- Advice old ones Egyptians : to introduce into the vagina different substances before intercourse : Petri 's papyrus, crocodile paste dung , elephant dung , oxen bile ,... Method established on principle killing sperm to this day used in contraceptives suppositories (of course does not contain given substances) .
- History modern contraception : 1921 - Haberlandt (Austria) si noticed that _ ovarian extracts _ pregnant women animals they can be used like contraception . To obtain doses for one however, the user would was 80 thousand needed ovaries .
- Synthesis artificial ones of hormones - American chemist Russel Marker from the proceeds sure Mexican plants .
- 1960 - on market first contraceptive tablet Enavid 10 - high content hormones - in one tablet estrogens for 10 days and progestogens on the 20

Intermittent have intercourse - coitus interruptus

- Method it isn't too much reliable - up to 20% failure for year . Causes failure :
 - to escape sperm can milk even without a male orgasm ;
 - expulsion sperm outside vagina can be also source pregnancy ;
 - Mon ejaculation remains in the urinary tract tube a small amount sperm and at repeatedly have sex in the vagina few always gets .
- The method should remain emergency a solution reserved for situations when _ already really nothing another available _ is not .

Method Ogino - Knausova

- Counting fertile and infertile days . Method requires regular menstrual cycle and is recommended to monitor ovulation by measurement basal temperature .

Condom

- He allegedly used it and famous Jacomo Casanova (1725-1798). Before the second world war with them only produced in the USA more than half past one millions annually . Today's world production is on level of 8.5 trillion pieces .

- It is relative reliable and cheap protection . To a great extent measure protects and before transmission sexual diseases , therefore it is recommended mainly to those who they don't have constant partner .

Cervical pessary

- bowl-shaped semicircular formation of plastic mass that is deployed _ on the cervix. Must have reasonable size which _ will recommend doctor . With us it isn't power taken .

Chemical contraception

- Spermicidal creams and suppositories are introduced before have sex They are though medically harmless , harmless and light available , however relatively little reliable . They require experienced user and is more suitable like supplement others contraceptives methods to increase reliability .

Intrauterine bodies

- Effective , long-term , comfortable and cheap method . Already in use many years and still doing well he doesn't know how exactly it works . She is suitable mainly for women who _ already gave birth . It isn't suitable for those who they have strong menstruation or often changes partners .

Two-phase hormonal contraception

- Estrogen alone would not be enough , because it would grow mucous membrane uterus and irregular would occur bleeding and increased risk cancer . That's why to end cycle adds progestogen to prevent growth uterine mucosa and at the same time closed the cervix. Administration progestogens after the whole time is advantageous because _ mucous membrane uterus does not grow , the cervix is closed - it is double protection and so is possible reduce dose estrogens .

Single phase hormonal contraception

- Each tablet contains dose estrogens with admixture progestogens .

Contraceptive patches

- They are founded on the same principle like combined contraceptive pills . They don't increase risks vascular diseases and their effect they do not disturb antibiotics . They are however still Relatively expensive and technical imperfect . It is , however very perspective method with large the future .

Minipills

- They are estrogen -free contain only small doses progestogens . They are suitable for breastfeeding women . They are used without a weekly allowance pauses and they can cause irregularity cycle . They report lower effectiveness .

Injections and Implants

- They work on principle maintenance levels gestagens in the body .
- **Depot injection** – po the skin is straightened suspension microcrystals that slowly _ _ they dissolve and secure so constant level progestogens on three months .
- **Subcutaneous implants** – hollow rods which _ will ensure level progestogens in the body on several years.
- It exists sure suspicion on increase risks osteoporosis , they destroy cycle .

Intrauterine contraceptive complex

- Combination intrauterine body and implant . Highly effective method .

Postcoital contraception or Morning after pill

1. Shocking filing increased doses hormones . That means 4 contraceptives tablets within 72 hours after intercourse and after 12 hours another 4. (It is a possibility administration of 8 tablets at once , but it is almost sure the lady would _ she refuted).
2. Submission higher doses progestogens . If was powder submitted within an hour after intercourse , one would be enough tablet . In the opposite the case after 12 hours follows the second

Mechanism effect

Combined preparations acts several mechanisms – the **primary is inhibition ovulation** , **secondary effects you can partition to " pre- implantation " (they slow down motility fallopian tubes and cilia epithelium in them)** , **periimplantation (it prevents by affecting the endometrium nidation)** and **" post-implantation " (will not prevent alone nidation , but maintenance pregnancy)** . All described three second

secondary effects they are post- fertilization , i.e. & nbsp ;' abortive & nbsp ;- occurs at them to **death already fertilized eggs** . Yet they weren't performed studies more precisely quantifying share secondary effects on final action hormonal preparations .^[1]

Toxicity

Toxicity contraceptive is important for the long term usage contraceptive during of life women .

Thromboembolic events

Main danger use contraceptive . Especially in detail they are described **thromboembolic events** (AIM, CMP, pulmonary embolization) in the elderly women smokers , as familiar load thromboembolic malfunctions . Today is a risk occurrence these complications during therapy smaller compared to incidence _ during in pregnancy .

Carcinogenic effect

They exist convincingly evidence that _ these substances **reduce** the incidence of endometrial carcinoma and ovaries . Results in cancer breast are unconvincing . Carcinoma uterine suppository is probably unaffected . Risk was high in the elderly preparations with a higher content estrogens .

Different risks

Nausea , tension breasts , pain heads , pigmentation skin , acne , hirsutism . Undesirable effects they are substantially lower at use modern ones preparations with low content estrogens (less than 50 µg /day).

Links

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Reference

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References

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