

| Method of contraception | Advantages | Disadvantages | Side effects | Contraindications |
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| COC Routes: -Oral (21 days followed by 7 days break) -Transdermal (each patch lasts 1 week (3 per month)) -IM injection (monthly) -Vaginal ring (Novaring) (last 3 weeks (7 days free)) MOA: suppress FSH and LH production → inhibition of follicular development and ovulation. | <ul style="list-style-type: none"> - Improve PMS. - Reduce risk of PID, endometrial cancer, ovarian cancer, ovarian cysts. (related to duration of use and sustained for 15 years after stop) - Treatment of acne (mostly with antiandrogenic progesterone such as Dianette) - Treatment of endometriosis | <ul style="list-style-type: none"> - Increased risk of VTE (X3-4) mostly in the first year of use, unaffected by age, smoking or duration. *lowest with levonorgestrol. - Increased risk of arterial disease (less common) ischemic stroke and not hemorrhagic, related to age, smoking and dose. Not with third generation. - Increased risk of breast cancer (up to 10 years after stop) - Increased risk of cervical cancer | <ul style="list-style-type: none"> - breakthrough bleeding. - headache, N&V - weight gain (no evidence) - fluid retention. - loss of libido - chloasma - breast enlargement | <ul style="list-style-type: none"> - breastfeeding (estrogen inhibit milk production). - smoking, old age. - multiple risk factors for CVD. - Hypertension >160/100 or hypertension with vascular disease. - major surgery and prolonged hospitalization. Absolute: <ul style="list-style-type: none"> -Past arterial or venous thrombosis -Focal migraine -TIA -Thrombophilias -Active liver disease -Liver adenoma, gallstones -Pregnancy - Estrogen dependent neoplasm (breast and endometrial ca) |
| Progesterone only Routes: -Oral (every day without break) -IM Injection (last 3 months) -Subdermal implant (implanon) (last 3 years) -Levonorgestrel IUD (Mirena) (last for 5 years) | <ul style="list-style-type: none"> -No effect on VTE -Minimal impact on lipid profile. -can be used in CVD except for current severe arterial disease. -can be used in lactating women. - can be used in old age, smoking. -protect against endometrial cancer, | <ul style="list-style-type: none"> - Increased risk of breast cancer. - Functional ovarian cysts - Ectopic pregnancy - Acne | Depo provera (IM injection): <ul style="list-style-type: none"> - weight gain - delay in return of fertility 6-7 months. - persistent irregular cycle (70% amenorrhea). - small reduction of BMD, recovered after stop. - headache, breast tenderness, loss of libido. | <ul style="list-style-type: none"> -Current breast cancer |

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| MOA: - suppress ovulation (with high dose) - Thickening of cervical mucous - Endometrial thinning. | uterine myomas, endometriosis. -symptomatic relieve of dysmenorrhea. - hormonal IUD used for menorrhagia | | | |
| IUD 1. Inert 2. Copper 3. Mirena Lasts 5-10 years MOA: Marked inflammatory reaction → toxic for sperm, ovum and interfere with sperm transport. (prevent fertilization and implantation) | -ideal for medium to long term contraception, doesn't need compliance. | -if pregnancy occurs, early or mid trimester pregnancy loss, preterm labor, ectopic pregnancy. - expulsion (1 in 20), lost thread, migration outside the uterus | - Dysmenorrhea - Menorrhagia (first 3-6 months due to effect of PGs) | -History of malignant trophoblastic disease. -Endometrial cancer and cervical cancer -Pelvic TB. -Current STI or PID. -Unexplained vaginal bleeding should be investigated. -Distorted cavity: may make insertion difficult. -Copper allergy. |
| Barrier methods -Physical: condom, vaginal diaphragm, cervical cap. -Chemical: spermicidals (Nonoxynol-9) | Protects against the STD (HIV) and carcinoma and premalignant disease of the cervix. Accessible and inexpensive. | Frequent use of N-9 may increase risk of HIV | | Latex allergy |

Failure rates:

COC: 0.3%

POP: 0.3-4%

Subdermal implant: <0.001

Copper IUD: 1-2%

Mirena: <0.2%

Condoms: 3-23%

Vasectomy and tubal ligation (irreversible): 0.02

Pearl index: the number of pregnancies per 100 women- years of exposure

Emergency contraception

Indication: Back up method After unprotected intercourse and before implantation, After failure of barrier method, missed pills.

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| Levonorgestrel (LVG-EC) | <ul style="list-style-type: none">- Single dose within 5 days.- Inhibit or delay ovulation if taken several days before ovulation, not effective if taken immediately before ovulation.- Efficacy 69%. |
| Ulipristal acetate (UPA-EC) | <ul style="list-style-type: none">- Single dose within 72 hours.- Interfere with implantation (endometrial effect).- Efficacy 85%. |
| Copper IUD | <ul style="list-style-type: none">- Within 5 days of the earliest predicted ovulation or unprotected intercourse.- Spermicidal and blastocidal effect of copper.- The most effective method. |