

MIRACLE Academy

قال تعالى (يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ)

تفريغ OTC
زميلتكم أنفال النعيمات



لجان الدفعات

أي اشي مو مكتوب عنده أو مو مخطط عليه بتكون ما حكت عنه اشي !

The background is a dark, muted purple-grey color. It is populated with various line-art style illustrations of contraceptive methods. These include several green and brown capsules, a large green condom, a calendar with a grid of squares, a blister pack of pills, a brown condom wrapper, a syringe-like applicator, and several sperm cells. The word "Contraception" is centered in a white, serif font, with a thin white horizontal line underneath it.

Contraception

Birth control , contraception and fertility control

contraception aims to (prevent pregnancy)

A woman can get pregnant if a man's sperm reaches one of her eggs (ova).

3 ways to stop pregnancy

Contraception tries to stop this happening by:

- 1 • keeping the egg and sperm apart
- 2 • stopping egg production
- 3 • stopping the combined sperm and egg (fertilized egg) attaching to the lining of the uterus

KEY CONCEPTS

- * Unintended pregnancy is a public health issue. Most unintended pregnancies that occur are due to inconsistent use or nonuse of contraceptives.
- * The desired goal of treatment with all methods of contraception is to prevent pregnancy. + *باعتقاد على قديمه
خطير فحدث حمل*
- * Counseling on the optimal use of the contraceptive method and providing strategies for minimizing sexually transmitted infections/diseases (STIs/STDs) must be provided to all patients being initiated on contraceptives and for those also using contraception on an ongoing basis. *هناك وحدة من الاستشارات المهمة لما يجب تنقي طرق منع الحمل*



الحمل غير المقصود بتكون فكرته خطيرة خصيصاً عند النساء الي بياخدوا أدوية من X + D category لأنه بسببوا تشوهات خلقية عند الجنين مشان هيك حتماً يجب استعمال موانع حمل ويمكن نستخدم طريقتين لمنع الحمل بهاي الحالة حتى نضمن انه ما يصير حمل بتاتاً

KEY CONCEPTS

Effectiveness in oral contraceptives = adherence

The most effective ones are contraceptive pills and IUD (Intrauterine Device)

The following must be considered when selecting a contraceptive method:

- ❖ the effectiveness of the method, the no contraceptive benefits and side effects of the method, attitude of the patient and of the sexual partner toward a contraceptive method, the ability to use the method correctly (which may alter the effectiveness of the method), and the ability to pay for the method. في نساء ما يتقبل تاخذ الحبوب ما بتكون مرتاحة عليهم أو الأعراض الجانبية بدايقوها أو مثلا إذا كان IUD ممكن يصير عندها نزيف
- ❖ Patient-specific factors (eg, frequency of intercourse, age, smoking status, desire for return to fertility, concomitant diseases, medications, and drug–drug interactions) must be evaluated when selecting a contraceptive method.
- ❖ Contraceptive methods are Nonhormonal and hormonal.
- ❖ Some medications may alter the effects of hormonal contraceptives or vice versa; therefore, a patient's concomitant medications should be assessed for drug–drug interactions with hormonal contraceptives.
- ❖ Accurate and timely counseling on the management of missed doses is critical for contraceptive effectiveness
- ❖ Emergency contraception (EC) may prevent pregnancy after unprotected intercourse or when regular contraceptive methods have failed

General Approach for contraception:

Nonpharmacologic Therapy

1

❖ Fertility Awareness-based Methods

Motivated couples may use fertility awareness-based methods that entail **avoiding sexual intercourse during the days of the menstrual cycle when conception is likely to occur.** → *Ovulation days*

These typically include calendar-based methods such as the standard days or rhythm methods. In addition, There are many technology apps available for these methods; however, the Food and Drug Administration (FDA) approved the first app in this category (Natural Cycles) in 2018. **(you can find the link for the app below)**

The major drawbacks of these methods are the relatively high pregnancy rates and avoidance of intercourse for several days during each menstrual cycle.

➤ Apple app store: <https://apps.apple.com/lr/app/natural-cycles-contraception/id765535549>

➤ Google Play store: <https://play.google.com/store/apps/details?id=com.naturalcycles.cordova&hl=en&gl=US>

في برامج عالتلفون ممكن تساعد ال couple عشان يعرفوا ايش الأيام الي ممكن تكون فيها ال fertility عالية وممكن يحدث فيها حمل.

General Approach for contraception: **Nonpharmacologic Therapy**

2

❖ Barrier Techniques

The effectiveness of barrier methods depends almost exclusively on motivation to use them consistently and correctly.

These methods include **condoms**, **diaphragms**, **cervical caps**, and **sponges**.

A major disadvantage is higher failure rates than most hormonal contraceptives; thus, provision of counseling and an advanced prescription for emergency contraception (EC) are recommended for all patients using barrier methods as their primary means of contraception.

General Approach for contraception: **pharmacologic nonhormonal Therapy**

❖ Spermicides and Spermicide-Implanted Barrier Techniques:

Spermicides, most of which contain nonoxynol-9, are chemical surfactants that destroy sperm cell walls and act as barriers that prevent sperm from entering the cervical os.

They are available as creams, films, foams, gels, suppositories, sponges, and tablets.

Spermicides offer no protection against STI/STDs. In fact, when used frequently (more than two times per day), nonoxynol-9 may increase the risk of transmission of HIV by causing small disruptions in the vaginal epithelium

The vaginal contraceptive sponge contains 1 g of the spermicide nonoxynol-9.

*** المطلوب فقط عليك

Nonpharmacological & pharmacological Non-hormonal contraceptive

"STD"
Sexually transmitted diseases

Toxic Shock Syndrome

متلازمة الصدمة التسممية (TSS) هي حالة نادرة ولكنها خطيرة على الحياة، تحدث بسبب السموم التي تنتجها بعض أنواع البكتيريا

بمجرد دبروا بالكم انه ماخى حمايت من ال STD
بال Spermicides

Method	Absolute Contraindications	Advantages	Disadvantages
Condoms, male	Allergy to latex or rubber	Inexpensive STI/STD protection, including HIV (latex only)	High user failure rate Poor acceptance Possibility of breakage Efficacy decreased by oil-based lubricants Possible allergic reactions to latex in either partner
Condoms, female	Allergy to polyurethane History of TSS ^{وجود قنينة}	Can be inserted just before intercourse or ahead of time STI/STD protection, including HIV	High user failure rate Dislike ring hanging outside vagina Cumbersome
Diaphragm with spermicide	*Allergy to latex, rubber, or spermicide *Recurrent UTIs *History of TSS *Abnormal gynecologic anatomy	Low cost ^{من كثير} Decreased incidence of cervical neoplasia Some protection against STIs/STDs	High user failure rate Decreased efficacy with increased frequency of intercourse Increased incidence of vaginal yeast UTIs, TSS Efficacy decreased by oil-based lubricants Cervical irritation
Cervical cap (FemCap)	✓Allergy to spermicide ✓History of TSS ✓Abnormal gynecologic anatomy Abnormal papanicolaou smear	Low cost Latex-free Some protection against STIs/STDs FemCap reusable for up to 2 years	High user failure rate Decreased efficacy with parity Cannot be used during menses
Spermicides alone	Allergy to spermicide	Inexpensive	High user failure rate Must be reapplied before each act of intercourse May enhance HIV transmission No protection against STI/STDs
Sponge (Today)	Allergy to spermicide Recurrent UTIs History of TSS Abnormal gynecologic anatomy	Inexpensive	High user failure rate Decreased efficacy with parity Cannot be used during menses No protection against STIs/STDs

للمعرفة X

للمعرفة X



Hormonal

Contraception

→ هاد بهمنانکون
خبر نينا نيا

Hormonal contraceptives contain a combination of estrogen and progestin or a progestin alone.

Oral contraceptive (OC) preparations first became available in the 1960s, but options have expanded to include a transdermal patch, a vaginal contraceptive ring, and long-acting injectable, "implantable", and intrauterine contraceptives.

قمت الجلد مشاف الناس اب ما بملتصم
ويعطوهم long acting effect

Combined hormonal contraceptives (CHCs) contain both estrogen and progestin and work primarily before fertilization to prevent conception.

* Progestins provide most of the contraceptive effect by thickening cervical mucus to prevent sperm penetration, slowing tubal motility, delaying sperm transport, and inducing endometrial atrophy it also block the LH surge, therefore inhibiting ovulation.

* Estrogens suppress FSH release from the pituitary, which may contribute to blocking the LH surge and preventing ovulation. However, the primary role of estrogen in hormonal contraceptives is to stabilize the endometrial lining and provide cycle control

slows tubal motility (slows the movement of the egg through the fallopian tubes)

- Progestin يركّز أكثر على جعل البيئة غير مناسبة للحيوانات المنوية ومنع الإباضة مباشرة
- Estrogen يركّز على تنظيم الدورة وتثبيت بطانة الرحم، ويساعد في منع الإباضة بشكل غير مباشر

However

* الدكتور حكت انك الاسترجيب هو الفعال
والدقوى ولكت احياناً بنضفر نستعمل Progestin
لكل الناس اب عندهم مشاكل أو Contraindication
للاسترجيب

Estrogens

Three synthetic estrogens found in hormonal contraceptive are:

- ✓ ethinyl estradiol (EE)
- ✓ mestranol,
- ✓ estradiol valerate.

Ethinyl estradiol is the most used estrogen in hormonal contraceptive products.

موجودتت جرعات في
مرفق ممنوع ياخذوا جرعة عالية
ياخذوا جرعة قليلة وفي مرفق
obese ما يتبع معهم جرعات صغيرة

Most combined OCs, transdermal patch, and vaginal ring contain estrogen at doses of (20 to 50) mcg of EE

Progestins

Progestin is a term used for a synthetic progesterone.

A variety of progestins are available, and they vary in their pregestational activity and differ with respect to inherent estrogenic, antiestrogenic, and androgenic effects.

Estrogenic and antiestrogenic properties are secondary to the extent of progestins' metabolism to estrogenic substances.

Androgenic activity depends on two variables: the presence of sex hormone (testosterone)-binding globulin (SHBG-TBG) and the androgen-to-progesterone activity ratio.

If the amount of SHBG-TBG is decreased, free testosterone levels increase, and androgenic side effects are more prominent

حكت انه في منهم let's say families وان شاء الله رح نشوفهم لقدام، في بعض ال side effects لإلهم بتعتمد على نوع ال progestin وممكن نتفادها بتغيير ال progestin

بشكل عام زي ما اتفقنا ال progestin ما بأدي ال total contraception فاحنا لما بدنا نعطيه بنعطيه مثلاً لوحدته مرضعه already احتمالية الحمل عندها قليلة أو بنعطيه لوحدته ما بتتحمل الاستروجين

+

واحسبوا حساب دائماً انه حتى المرضعه ممكن يصير عندها حمل وهي ماشيه على ال progestin لأنه مش كتير effective زي ال combined

Injectable Progestins

Steroid hormones provide longer-term contraception when injected into the skin. Sustained progestin exposure blocks the LH surge, thus inhibiting ovulation.

Should ovulation occur, progestins reduce ovum motility in the fallopian tubes, Even if fertilization occurs, progestins thin the endometrium, reducing the chance of implantation.

Women who may benefit from injectable progestins are those who are breastfeeding, those who are intolerant to estrogens (ie, have a history of estrogen-related headache, breast tenderness, or nausea) or those with concomitant medical conditions or contraindications in which estrogen is not recommended.

In addition, injectable progestins are beneficial for women with adherence issues; they have lower failure rates than ^{Combined Hormonal Contraceptives} CHC methods

ممتاز كلام الدكتور، خيلنا نفهم انه pills - progestin (only) أو أوب طريقه بتحتوي على progestin كالتة (ماعدنا) ال injectables هم less effective من ال CHC لأنه بدهم التزام أكثر وأحياناً ما بنعوا الإذابة بشكل كامل

نقاط مهمة !

Progestin-Only Pills (POPs) vs. Combined Hormonal Contraceptives (CHCs):

حبوب منع الحمل التي تحتوي على Progestin فقط (POPs) تكون أقل فعالية بشكل عام من وسائل منع الحمل الهرمونية المركبة (CHCs) التي تحتوي على كل من Progestin و Estrogen.

ويرجع ذلك بشكل كبير إلى أن حبوب الـPOPs تعتمد بدرجة أكبر على الاستخدام المنتظم والدقيق. فإذا نسيت المرأة تناول الحبة أو أخذتها في وقت متأخر، فإن معدل الفشل في منع الحمل يرتفع.

بالنسبة لحبوب (POPs) Progestin-only pills، فإن معدل الفشل في الاستخدام العملي يكون أعلى، لأن توقيت تناول الحبة يعتبر أمراً بالغ الأهمية.

يجب تناول الحبة ضمن نافذة زمنية محددة يومياً (عادةً خلال 3 ساعات من نفس الوقت كل يوم)، وإلا فإن فعاليتها في منع الحمل تنخفض.

من ناحية أخرى، فإن وسائل منع الحمل الهرمونية المركبة (CHCs)، والتي تحتوي على كل من Progestin و Estrogen، عادةً ما يكون لديها معدل فشل أقل في الاستخدام العملي، لأن الـEstrogen يساعد في تنظيم الدورة الشهرية ويوفر طبقة إضافية من الحماية. حتى إذا لم يعمل أحد الآليات (مثل الـProgestin) بكفاءة كافية، فإن الـEstrogen يظل يساهم في منع الإباضة ونقل الحيوانات المنوية.

يُساهم الـEstrogen الموجود في وسائل منع الحمل المركبة في تثبيط إفراز هرمون FSH، مما يمنع نضوج الحويصلة (البويضة)، وبالتالي يقل احتمال حدوث الإباضة بشكل كبير.

لذلك، باستخدام الوسائل المركبة، يتم منع الإباضة بشكل أكثر فعالية مقارنة بوسائل Progestin-only.

!!

But injectable progestins are generally considered more effective than progestin-only pills because they provide long-lasting contraception and reduce user error.

They actually have one of the lowest failure rates among hormonal contraceptives.

Progestins are actually more directly responsible for inhibiting ovulation. Estrogen plays a role, but it's not the primary inhibitor of ovulation in hormonal contraceptives.

What to Keep in Mind:

Progestins are the primary agents for inhibiting ovulation, not estrogen. While estrogen plays a secondary role, progestins are more effective at blocking ovulation directly.

no contraceptive is 100% effective

وسائل منع الحمل التي تحتوي على Progestin فقط (مثل الشكل القابل للحقن) تُعتبر آمنة وفعالة للنساء المرضعات. فهي لا تؤثر على إنتاج الحليب، على عكس الـEstrogen الذي يمكن أن يقلل من كمية الحليب. أما فكرة أن المرأة المرضعة يمكن أن تحمل أثناء استخدام Progestin القابل للحقن، فهي صحيحة من الناحية النظرية فقط، ولكن حدوث الحمل غير مرجح عند استخدامه بشكل صحيح. ومن المهم أن نلاحظ أن معدلات الفشل في وسائل الـProgestin القابلة للحقن منخفضة جداً، حتى بين النساء المرضعات.