

**CURRENT HORMONAL
CONTRACEPTION
- LIMITATIONS**

Oral Contraceptives - Features

MERITS	DEMERITS
Up to 99.9% efficacy if used correctly and consistently	Incorrect use /missed pills may reduce efficacy (typical use efficacy : 97%)
Reversible method – rapid return of fertility	Need daily use
Offer non-contraceptive health benefits	No protection against STDs
Safe: serious complications rare	“Nuisance” side-effects may be seen early in the course of treatment
Ease of administration Use independent of intercourse	Need prompt repurchase of subsequent packs





COCs – Side Effects

Mechanistic Classification

ESTROGENIC

- Nausea, vomiting
- Bloating, edema
- Irritability
- Breast tenderness & increased breast size
- Cyclic weight gain
- Cyclic headaches
- Thromboembolic events (DVT/PE)*
- Telangiectasis
- Chloasma

* DVT – Deep Vein Thrombosis
PE- Pulmonary edema

PROGESTOGENIC

- Headaches
- Breast tenderness
- Hypertension

ANDROGENIC

- Oily skin, acne
- Hirsutism
- ↑ appetite, weight gain
- Depression, fatigue
- Rash, pruritus
- ↑ LDL-C, ↓HDL-C



“Nuisance” Side Effects

Not experienced by all users, not harmful, may be unpleasant

Non-Menstrual

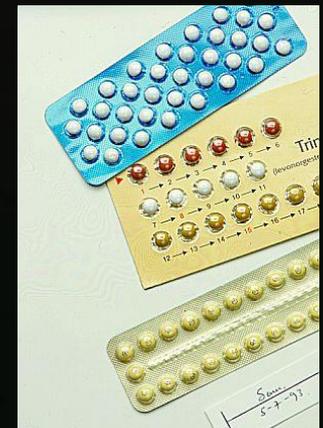
- Weight gain
- Nausea
- Dizziness
- Acne
- Breast tenderness
- Headaches
- Mood change

Bleeding

- Amenorrhea
- Breakthrough bleeding

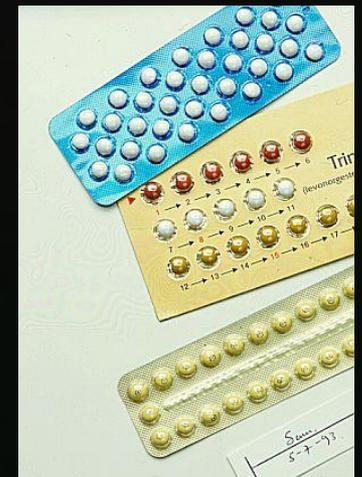
COCs – Long-Term Effects

- Severe adverse effects are rare
- Slight increase in risk concentrated among a subgroup of women with particular characteristics



COCs – Long-term Concerns

- Development of Cancer – breast & cervical
- Cardiovascular risks, BP, Stroke
- Venous Thromboembolic phenomena (DVT, PE)
- Obesity – weight gain

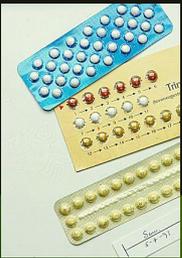




COCs & Cancer Risk

NO DIRECT RELATIONSHIP

- Breast Cancer - Slight increased incidence
- Cervical Cancer - Slight and questionable
- Endometrial - Decreased chances
- Ovarian - Decreased chances
- Liver - Increased (adenomas)



COCs & Breast Cancer

- Collaborative Data On 53,297 women with breast cancer; 100,239 women without breast cancer
- Relative Risk (RR) for current users - 1.24
- Decreased risk (RR= 1.16) in women who had stopped OC
- Tumors were small, localized
- Detected early because of surveillance

MESSAGE– *Annual palpation/Breast Self Examination
Sonomammography/ Mammography as required*

COCs & Cervical Cancer

- Precancer detected, not invasive cancer
- OC for > 5 years – RR = 2.1
- Type of women who use COCs have similar life style as precancer patients
- Risk factors: smoking, promiscuity, Sexually Transmitted Infections



COCs & Cervical Cancer

Message:

- Proper counseling
- Smoking is a risk factor
- Pap smear:
 - Initial - before COC Rx
 - Annual - during use
 - Annual - for 5 years after use
- Treat STI & Precancer

PREVENT INVASIVE CANCER



COCs & Cancer Risk

- Don't worry about cancer for short term use of up to 2 years
- Be regular with usual cancer detection measures
- Remember benefits / protection





Cardiovascular Effects

- Age < 35 years
 - Normotensive
 - Non smoker
 - Non-diabetic
- } **Risk is Less**
- Pills cause mild pro-coagulative changes - hepatic production of clotting factor VII & IX, ↑ fibrinogen

Same changes occur in pregnancy

- Pregnancy - limited duration
- OC pills - prolonged use



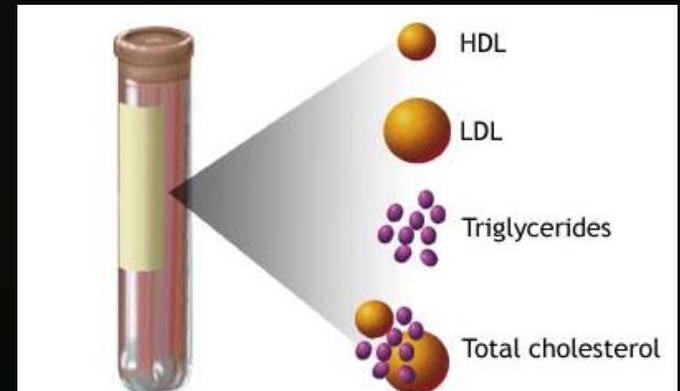
Cardiovascular Effects

- Low-dose estrogen pills carry minimal CV risk
- Newer progestins (desogestrel & gestodene) may reduce heart attack & stroke risk
- Increased risk of venous thromboembolism with newer progestins reported to be due to confounding factors & patient selection bias

Metabolic Effects

- High-dose pills associated with mild abnormality in carbohydrate metabolism; monitor blood glucose in diabetics
- Low-dose pills – No significant effects on carbohydrate or lipid metabolism
- A recent study* found a 43% increase in incidence of gestational diabetes among women who used an androgenic progestin–based contraceptive during the 5-year period before pregnancy

* (Diabetes Care, 2007; 30: 1062-68)



COCs – Long Term Effects: Conclusions

- Morbidity / Mortality associated with pregnancy is far higher than with oral contraceptives

Unwanted pregnancies are far more risky
- may lead to unsafe abortions

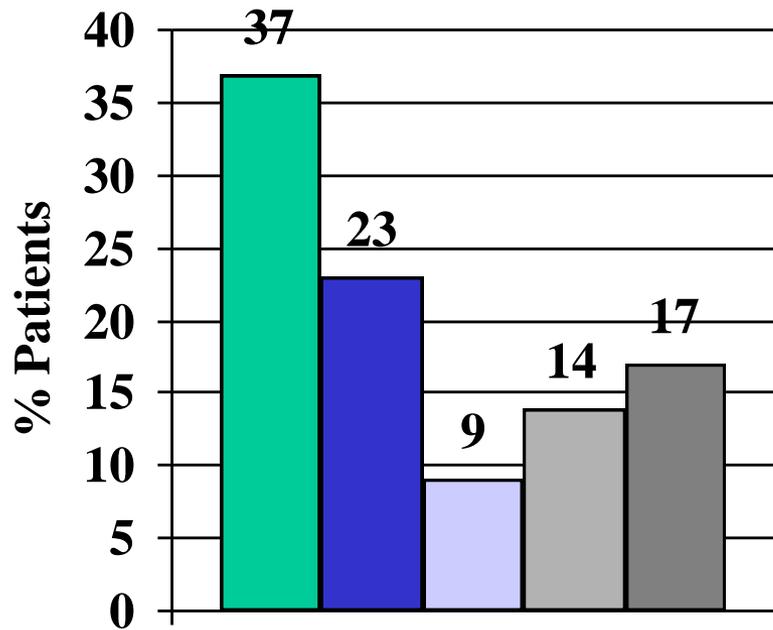
‘Abortion more dangerous than contraception’

Discontinuation of OCs*



- Despite their well established efficacy & safety, many patients prematurely discontinue OCs
 - About one-third to half the women discontinue OCs within 1 year
 - Most of these discontinuations seen in the first 2 months, & up to 6 months
 - Discontinuation rates high (50%) among adolescents & new starters (32%)
 - Many discontinuations (42%) occur without informing the physician

OCs Discontinuation – Reasons



- Side effects
- No need
- Clinician recommended
- Method related
- Others - unspecified

- Side effects leading to discontinuation:
 - Bleeding irregularities (12%)
 - Nausea (7%)
 - Weight gain (5%)
 - Mood changes (5%)
 - Breast tenderness (4%)
 - Headaches (4%)

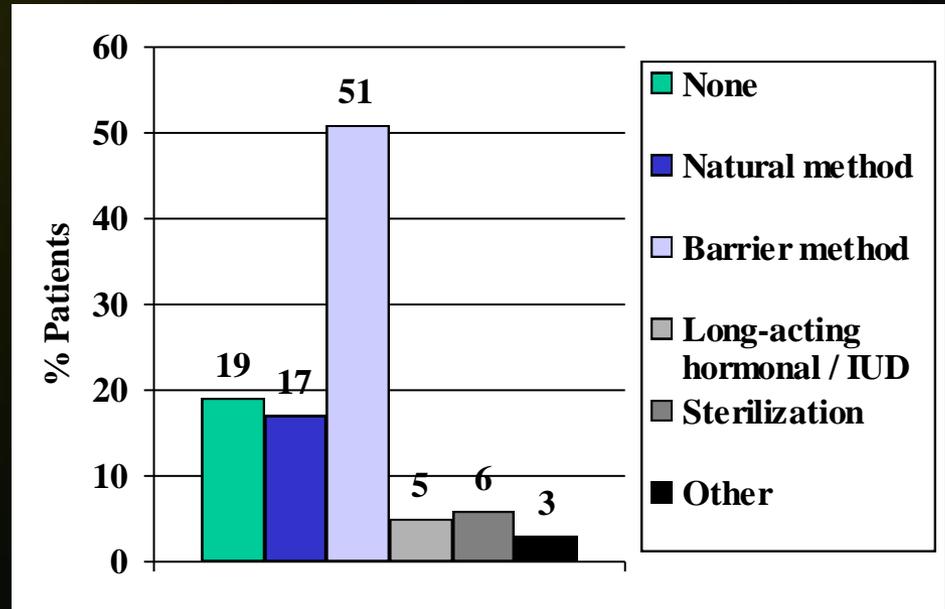
OCs Discontinuation – Reasons*



- Myths & Beliefs also account for many discontinuations of OCs
 - Women in China believe that OCs make them fat & hairy
 - Women in U.K. feel that hormones are bad for them
- These women then use less reliable barrier methods even after experiencing method failure & unwanted pregnancy

What Happens to Women Who Discontinue OCs?*

- Only 11% shifted to other reliable methods
- Almost one-fifths did not adopt any contraceptive method
- 68% shifted to less reliable methods – a serious health issue!
- About 44% returned to OCs after 6 months



Conclusions



- Discontinuation of OCs mainly due to side effects & concern about long-term risks
- Increasing OC Continuation Rates by:
 - Pretreatment counseling
 - Education of the patients about various contraceptive methods
 - Regular follow-up & education during these visits
 - Choosing an OC pill:
 - With minimal potential for side effects that may lead to patient dissatisfaction & discontinuation
 - That improves the patient well-being & promotes compliance