Overview of Oral Contraceptives
DISCLAIMER

• The Content in this presentation is only intended for healthcare professionals in India. The medical information in this presentation is provided as an information resource only, and is not to be used or relied on for any diagnostic or treatment purpose.

• “The views and opinions mentioned in the presentation is strictly that of the author and the individuals expressing the same and Pfizer may not necessarily endorse the same. Pfizer (including its parent, subsidiary and affiliate entities) makes no representation or warranties of any kind, expressed or implied; as to the content used in the presentation and/or the accuracy, completeness of its content.”

Pfizer Limited, The Capital- A Wing, 1802, 18th Floor, Plot No. C-70, G Block, Bandra - Kurla Complex, Bandra (East), Mumbai 400 051, India

• For the use only of Registered Medical Practitioners or a Hospital or a Laboratory

PP-NXM-IND-0252 9th Apr 2019
Table of Contents

• Choice of contraception
• Types of Oral Contraceptives
• Combined oral contraceptives: Myths and Facts
• Progestin-only pills
• When and how to use oral contraceptives
Choice of Contraception

Hormonal
- Combined oral contraceptives
- Progestin-only pills
- Contraceptive patch
- Vaginal rings

Barrier
- Condoms
- Diaphragms and cervical caps
- Contraceptive sponges and spermicides

Intrauterine
- Copper intrauterine device
- Hormonal intrauterine device

Sterilization
- Implant
- Tubal ligation
- Vasectomy

What are Oral Contraceptives (Birth Control Pills)?

- Most common form of contraception\(^1\)
- Used for *prevention of unwanted pregnancy*\(^2\)
- *Safe and reliable* method\(^2\)
- *Highly effective*: chance of pregnancy is 0.1% (if taken perfectly)\(^2\)
- Real-world scenario: chance of pregnancy is about 8% per year\(^2\)

---

Types of Oral Contraceptives

Oral contraceptives (Birth control Pills)

- Combined oral contraceptives (contains both estrogen and progestin)
- Progestin-only pills (also known as the “mini-pill”)

COMBINED ORAL CONTRACEPTIVES
What are Combined Oral Contraceptives?

• Contains both estrogen and progestin
• Multiple formulations are available
• Formulations vary by
  – Type and amount of hormones
  – Patterns of those amount throughout the cycle
  – Number of active pills in the packet

### What are the Benefits/Risks of Combined Oral Contraceptives?

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved cycle control and relief from menstrual symptoms</td>
<td>• Blockage of blood vessel by a blood clot (venous thromboembolism)</td>
</tr>
<tr>
<td>• Reduced acne and hirsutism</td>
<td>• Heart attack (myocardial infarction)</td>
</tr>
<tr>
<td>• Improved bone health</td>
<td>• Reduced blood supply to brain (stroke)</td>
</tr>
<tr>
<td>• Prevention of ovarian / endometrial and colorectal cancers</td>
<td></td>
</tr>
</tbody>
</table>

Different Types of Combined Oral Contraceptives Regimens

- **Combined oral contraceptives**
  - **Traditional regimen**
    - 28-day (21/7) regimen: 21 active (contains hormones) and 7 inactive (placebo) pills
  - **Extended regimen**
    - 24/4 or 26/2 regimen: 28-day regimen with <7 hormone-free days
  - **Continuous regimen**
    - More than 28 days of active hormones use followed by hormone-free or decreased interval
    - Regimen taken in an uninterrupted manner with no hormone-free interval

---

Benefits of extended and continuous combined oral contraceptives are

- High user acceptability
- Improved control of medical conditions
- Likely improved efficacy due to consistent ovulation suppression
- Decreased frequency of scheduled bleeding
- Decrease in estrogen-withdrawal symptoms
- Unscheduled bleeding lessens over time

COMBINED ORAL CONTRACEPTIVES:
MYTHS AND FACTS
Myths and Facts: Birth Defects


- **MYTH**
  - Combined oral contraceptives cause birth defects in babies\(^1\)

- **FACT**
  - Oral contraceptive use before or during pregnancy does not increase the risk of birth defects\(^2\)
Myths and Facts: Cancer

- Use of COCs increases the risk for cancers¹
- Use of COCs reduces the risk for endometrial,² ovarian, and colon cancers³

COCs: Combined oral contraceptives

Myths and Facts:

General Health Problems

**MYTH**

- Combined oral contraceptives cause headaches, asthma, and hairloss\(^1\)

**FACT**

- Combined oral contraceptive use may cause minor and less frequent side effects such as headache, bloating and fluid retention, mood changes, and irregular bleeding\(^2\)
- There are several reported health benefits of COCs as well such as reduction in menstrual blood loss, acne, hirsutism, and premenstrual syndrome\(^2\)

COCs: Combined oral contraceptives
Myths and Facts:

Infertility/Delay in Conceiving

**MYTH**

- Combined oral contraceptive use may cause infertility or a delay in conceiving\(^1\)

**FACT**

- No correlation has been found between the use of oral contraceptives and infertility\(^2\)
- Return to fertility is observed with the use of oral contraceptives if you decide to become pregnant\(^3\)

---

Myths and Facts: Sexual Desire

**MYTH**

- Combined oral contraceptives reduce interest in sex (loss of libido) and sexual pleasure

**FACT**

- Combined oral contraceptive use does not cause change in sexual activity. Majority of COCs users reported no change in libido

---

Myths and Facts: Weight Changes

• Combined oral contraceptive use may cause weight changes¹

MYTH

• Overweight issues may be related to negative self-esteem and anxiety. There is no evidence of weight gain by low-dose COCs²

FACT

• No difference in weight is reported in women taking COCs as compared to non-users²

COCs: Combined oral contraceptives
### Special Considerations: Combined Oral Contraceptives

<table>
<thead>
<tr>
<th>Absence of menstruation (not post-partum)</th>
<th>Post-abortion (spontaneous or induced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Combined oral contraceptives can be started at any time if the woman is not already pregnant</td>
<td>• Combined oral contraceptives can be started within first 7 days after first or second trimester abortion, including immediately post abortion</td>
</tr>
<tr>
<td>• Abstain from sex or use additional contraceptive protection for the next 7 days</td>
<td>• Abstain from sex or use additional contraceptive protection for the next 7 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After childbirth</th>
<th>Switching from another contraceptive method</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Breastfeeding women should not use COCs till 6 weeks after childbirth and usually should avoid use up to 6 months</td>
<td>• Combined oral contraceptives can be started immediately if it is reasonably certain that the woman is not pregnant</td>
</tr>
<tr>
<td></td>
<td>• Abstain from sex or use additional contraceptive protection for the next 7 days (if &gt;5 days since menstrual bleeding started)</td>
</tr>
</tbody>
</table>

COCs: Combined oral contraceptives; VTE: Venous thromboembolism
PROGESTIN-ONLY PILLS
What are Progestin-Only Pills?

- Also known as the “mini-pills”¹
- Contains only synthetic progestogens¹,²
- Reversible and can be used by women of all ages²
- Effective for women with contraindications to use of estrogen¹
- Progestin pills can be used as emergency contraception¹
  - Levonorgestrel is the most popular form for emergency contraception¹
- Can be started at any time provided the woman is not pregnant²

How do Progestin-Only Pills Prevent Pregnancy?

- Prevents ovulation (release of egg from the ovaries)
- Causes thickening of cervical mucus
- Reduce sperm motility and penetration

What are the Benefits/Risks of Progestin-Only Pills?

**Benefits**

- Improved menstrual symptoms
- Can be used in breastfeeding women
- Improvement in heavy menstrual periods, premenstrual syndrome, and anemia

**Risks**

- Breast cancer
- Cirrhosis of liver
- Reduced blood supply to brain (stroke)
- Acute or recurrent deep vein thrombosis
- Liver tumors

What are the Benefits/Risks of Progestin-Only Pills?

**Benefits**

- Improved menstrual symptoms
- Can be used in breast-feeding women
- Improvement in heavy menstrual bleeding, pre-menstrual syndrome and anemia

**Risks**

- Breast cancer
- Cirrhosis of liver
- Reduced blood supply to brain (stroke)
- Acute or recurrent deep vein thrombosis
- Liver tumors

What are the Side Effects of Progestin-Only Pills?

**Primary Side effect**

- Irregular bleeding\(^1,2\)
- Amenorrhea\(^2\)
- Shortened cycles\(^2\)

**Less Common side effects**

- Headache\(^2\)
- Breast tenderness\(^2\)
- Dizziness\(^2\)

How are Progestin-Only Pills Used?

- Can be taken every day
- No placebo or pill-free interval required
- Helps in maintaining a regular pill schedule

What to Do if a Dose of Progestin-Only Pills is Missed?

A dose is considered missed if it has been more than 3 hours since its scheduled time.

- One pill should be taken as soon as possible
- Continue taking pills daily (one each day, at the same time each day, even if two pills required on the same day)
- Back-up contraception should be used (e.g., condoms) or avoidance of sexual intercourse until pills have been taken correctly on time for 2 consecutive days
- If the woman has had unprotected sexual intercourse, emergency contraception should be considered

When Not to Take Combined Oral Contraceptives?

Combined oral contraceptives may be avoided in the following cases:

- After delivery
  - If breastfeeding, no use before 6 weeks and avoid use up to 6 months
  - If not breastfeeding, no use before 42 days without doctor’s advice
- Smokers over 35 years
- Higher than normal BP (systolic 140–159 mm Hg; diastolic 90–99 mm Hg)
- History of loss/reduced blood supply to heart (ischemic heart disease) or brain (stroke)
- Severe headache (migraine with auras)
- History of blood clots in arms or legs (DVT/PE); prolonged immobilization after surgery
- Breast cancer (current or in the past)
- Long-term severe diabetes

- While some conditions may rule out oral contraceptives, medical advice is always best in assessing individual cases

BP: Blood pressure; DVT: Deep vein thrombosis; PE: Pulmonary embolism
Thank you