Intrauterine Devices (IUDs)

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Terminology

• IUD: Intrauterine device
• IUC: Intrauterine contraception
• IUS: Intrauterine system
• LARC: long-acting reversible contraception (i.e., IUD and implant)
General Overview of Intrauterine Devices

• Small, T-shaped device placed in the uterus
• Safe
• Simple to use (low-maintenance)
• Highly effective
• Immediately effective
• Rapid return of fertility
• Long-term protection

How do they work?

**Non-hormonal IUD (Copper)**
- Incapacitates sperm

**Hormonal IUD (LNG-IUS)**
- Prevents ovulation
- Thickens cervical mucus

References:
All contraceptives prevent fertilization of the egg by the sperm

- **Incapacitates Sperm**
  - Copper IUD

- **Prevents Ovulation (release of egg from the ovary)**
  - Hormonal Contraceptives (Combined)
  - Combined Oral Contraceptives (COCs)
  - Emergency Contraceptive Pills
  - Combined Hormonal Vaginal Rings
  - Hormonal Contraceptives (Progestin-only)*
    - Implants
    - Injectable
    - Progestin-only Pills (POPs)
    - Progestin-only Vaginal Rings
    - Lactation Amenorrhea Method (LAM)

- **Blocks Sperm**
  - Male Condoms
  - Female Condoms

- **Thickens Cervical Mucus**
  - Hormonal Contraceptives (Progestin-only)*
    - Hormonal IUDs
    - Implants
    - Injectable
    - Progestin-only Pills (POPs)
    - Progestin-only Vaginal Rings

* Progestin-only hormonal methods have more than one mechanism of action.
Non-hormonal IUD: Copper-T

- ParaGard®
- Copper ions
- Approved for 10 years of use; effective for up to 12

Hormonal IUDs: LNG IUS

- LNG 52 IUS
  - Mirena® and Liletta®
  - Release LNG 20 μg/d
  - Approved use:
    - Mirena: 5 yrs
    - Liletta: 4 yrs

- LNG 19.5 IUS
  - Kyleena®
  - Releases LNG 17.5 μg/d
  - Approved use: 5 yrs

- LNG 13.5 IUS
  - Skyla™
  - Releases LNG 14 μg/d
  - Approved use: 3 yrs
Advantages

• Very effective and cost effective (over time)
• Easy - “get it, forget it”
• No partner cooperation needed
• Safe for breast feeding
• Reversible with quick return to fertility
• Hormonal IUD relieves heavy menses/cramps (anemia)
• Can be inserted after vaginal delivery, C-Section or during post-abortion care
• Reduces cancer risks: endometrial, ovarian and cervical (?)

Disadvantages

• Device cost (LNG-IUS) and insertion costs
• Requires a skilled provider for insertion and removal
• Instruments/equipment needed
• Discomfort at time of placement
• Copper IUD may cause increased bleeding/cramps
• No protection from STIs/HIV
Equipment required for IUD insertion

- Speculum
- Long Scissors
- Ring forceps
- Tenaculum forceps
- Uterine Sound
- Cotton balls
- Gloves
- Betadine
Comparing Typical Effectiveness of Contraceptive Methods

More effective
Less than 1 pregnancy per 100 women in one year

6-12 pregnancies per 100 women in one year

Less effective
18 or more pregnancies per 100 women in one year

How to make your method most effective

After procedure, little or nothing to do or remember

**Vasectomy:** Use another method for first 3 months

**Injections:** Get repeat injections on time

**Pills:** Take a pill each day

**Patch, ring:** Keep in place, change on time

**Diaphragm:** Use correctly every time you have sex

**Condoms, sponge, withdrawal, spermicides:** Use correctly every time you have sex

**Fertility-awareness based methods:** Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be the easiest to use and consequently more effective

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Chart adapted from WHO 2007.
HOW WELL DOES BIRTH CONTROL WORK?

Really, really well

The Implant (Nexplanon)
Works, hassle-free, for up to... 3 years

IUD (Skyla)
3 years

IUD (Mirena)
5 years

IUD (ParaGard)
12 years

Sterilization, for men and women
Forever

Less than 1 in 100 women

O.K.

The Pill
For it to work best, use it... Every. Single. Day.

The Patch
Every week

The Ring
Every month

The Shot (Depo-Provera)
Every 3 months

6-9 in 100 women, depending on method

Not as well

Pulling Out

Fertility Awareness

Diaphragm

Condoms, for men or women

12-24 in 100 women, depending on method

For each of these methods to work, you or your partner have to use it every single time you have sex.

FYI, without birth control, over 90 in 100 young women get pregnant in a year.
LARC Continuation Rates Are the Highest of All Reversible Methods

LARC Continuation Rates at 3 Years

- 70% of copper T IUD users
- 70% of LNG 52 IUS users
- 31% of non-LARC* users
- 56% of Implant users
- 31% of Non-LARC* users

*LARC = long-acting reversible contraception
(non-LARC methods include the contraceptive pill, patch, and ring)

LARC Satisfaction at 1 Year

Counseling for Individual Preferences

Copper T IUD

- Women who don’t want hormonal contraception
- Women who want regular periods

LNG 52 IUS

- Women who:
  - want less menstrual flow
  - experience dysmenorrhea
  - have dysfunctional uterine bleeding

Dispelling Myths About IUC

**IUDs:**

- **Are not:**
  - abortifacients
  - large in size
- **Do not:**
  - cause ectopic pregnancies
  - cause pelvic infection
  - decrease the likelihood of future pregnancies
  - need to be removed for PID

- **Can be:**
  - used by women who have had an ectopic pregnancy
  - inserted same day
  - started immediately postpartum or during post-abortion care
  - used by nulliparous women

- **Have:**
  - high continuation rates (76 to 87% at 1 year)

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WHO Medical Eligibility Criteria (MEC) (comes in the form of an app, wheel and chart)

Category 1: No restriction on use

Category 2: Advantages generally outweigh theoretical or proven risks

Category 3: Theoretical or proven risks usually outweigh advantages

Category 4: Unacceptable health risk

Source: Medical eligibility criteria for contraceptive use, 5th Ed. WHO 2015.
## WHO Quick Reference Chart (2015)

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>Sub-condition</th>
<th>COC</th>
<th>DMPA</th>
<th>Implants</th>
<th>Cu-IUD</th>
<th>LNG-IUS</th>
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</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td></td>
<td></td>
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<tr>
<td>Breastfeeding</td>
<td>Less than 6 weeks postpartum</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td></td>
<td>≥ 6 weeks to &lt; 6 months postpartum</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
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<tr>
<td></td>
<td>≥ 6 months postpartum</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Postpartum not breastfeeding</td>
<td>&lt; 21 days</td>
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<td>NA</td>
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<tr>
<td>VTE = venous thromboembolism</td>
<td>&lt; 21 days with other risk factors for VTE*</td>
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<td>NA</td>
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<tr>
<td>Postpartum timing of insertion</td>
<td>≥ 48 hours to less than 4 weeks</td>
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<td></td>
<td>Puerperal sepsis</td>
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<tr>
<td>Postabortion (immediate post-septic)</td>
<td>Age ≥ 35 years, &lt; 15 cigarettes/day</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Smoking</td>
<td>Age ≥ 35 years, ≥ 15 cigarettes/day</td>
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<tr>
<td>Multiple risk factors for cardiovascular disease</td>
<td>History of (where BP cannot be evaluated)</td>
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<td>NA</td>
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<tr>
<td>Hypertension</td>
<td>BP = blood pressure</td>
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<td>BP is controlled and can be evaluated</td>
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<td></td>
<td>Elevated BP (systolic 140-159 or diastolic 90-99)</td>
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<td></td>
<td>Elevated BP (systolic ≥ 160 or diastolic ≥ 100)</td>
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<tr>
<td>Diabetes</td>
<td>Vascular disease</td>
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<tr>
<td></td>
<td>Nephropathy/retinopathy/neuropathy</td>
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<td>AIDS</td>
<td>Diabetes for &gt; 20 years</td>
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<td>No antiretroviral (ARV) therapy</td>
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<td>Not improved on ARV therapy</td>
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<td>Drug interactions</td>
<td>Rifampicin or rifabutin</td>
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<td></td>
<td>Anticonvulsant therapy **</td>
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### WHO Selected Practice Recommendations (SPR)

<table>
<thead>
<tr>
<th>Examination or test</th>
<th>Cu-IUD and LNG-IUD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast examination by provider</td>
<td>C</td>
</tr>
<tr>
<td>Pelvic/genital examination</td>
<td>A</td>
</tr>
<tr>
<td>Cervical cancer screening</td>
<td>C</td>
</tr>
<tr>
<td>Routine laboratory tests</td>
<td>C</td>
</tr>
<tr>
<td>Haemoglobin test</td>
<td>B</td>
</tr>
<tr>
<td>STI risk assessment: medical history and physical examination</td>
<td>A‡</td>
</tr>
<tr>
<td>STI/HIV screening: laboratory tests</td>
<td>B‡</td>
</tr>
<tr>
<td>Blood pressure screening</td>
<td>C</td>
</tr>
</tbody>
</table>

**Class A:** Exam/test is mandatory

**Class B:** Exam/test is recommended, when feasible in a service delivery context

**Class C:** Exam/test is not mandatory

For more information, please visit www.mcsprogram.org

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