Adolescents and Long Acting Reversible Contraception
Rates are Declining

Figure 1. Pregnancy, birth and abortion rates for teenagers 15-19 years: United States

Teen Pregnancy Rates Remain High

Teen Pregnancy Rates per 1,000 Teens ages 15-19

National Campaign and Advocates for Youth 2006-2008 data
All Birth Control is NOT Equal

<table>
<thead>
<tr>
<th>Extremely effective</th>
<th>Very effective</th>
<th>Moderately effective</th>
<th>Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevents pregnancy &gt;99% of the time</td>
<td>Prevents pregnancy ~91-99% of the time</td>
<td>Prevents pregnancy ~81-90% of the time</td>
<td>Prevents pregnancy up to 80% of the time</td>
</tr>
<tr>
<td>Sterilization</td>
<td>Pills</td>
<td>Condom Sponge</td>
<td>Fertility awareness</td>
</tr>
<tr>
<td>IUD/IUS</td>
<td>Patch</td>
<td>Ring</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>Implants</td>
<td></td>
<td>Diaphragm</td>
<td>Cervical cap</td>
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<tr>
<td></td>
<td>Injectables</td>
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<td>Spermicide</td>
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</tbody>
</table>

2014
IUDs as effective as sterilization …
but immediately reversible

5-year gross cumulative failure rate

- LNG IUS (Mirena): 0.5
- CuT 380 (Paragard): 1.4
- All Sterilization: 1.3

Andersson et al. Contraception 1994;49:56
What are Teens Using for Contraception?

U.S. teens 15-19 yrs-CDC NSFG 2006-2008

- OCP: 54%
- Condoms: 23%
- DMPA: 9.40%
- Withdrawal: 4%
- IUD: 3.60%
- Ring: 3.60%
- Patch: 1.70%

- Extremely effective
- Very effective
- Moderately effective
Most women forget pills

What birth control are teens using?

69% Extremely effective

3.6% Very effective

LARC Short Acting

U.S. teens 15-19 yrs-CDC NSFG 2006-2008
What birth control would teens choose?

62% Extremely effective
38% Very effective

LARC Short Acting

What do teens choose?

LARC

- 14-20 y/o: 62%
- 14-17 y/o: 69%
- 18-20 y/o: 61%

Short Acting

- 14-20 y/o: 38%
- 14-17 y/o: 31%
- 18-20 y/o: 39%

Of teens choosing LARC… what do teens choose?

Satisfaction with method at 1 year

Piepert JF et al. Obstet Gynecol May 2011
Continuation rates at 1 year

Piepert JF et al. Obstet Gynecol May 2011
What is LARC?

Long Acting Reversible Contraception

Sure the pill is really effective. If you remember to take it every day.
Long Acting Reversible Contraception (LARC) = IUDs & Implants

- Most effective methods: >99%
- Safest
  - No estrogen
  - Contraindications rare
- Highest patient satisfaction
  - (80% LARC vs 50% short acting)
- Highest continuation rates
  - (86% LARC vs. 55% short acting)
- Long-term protection last 3-12 years
- Rapid return of fertility
- Most cost effective
- Least likely to be used by teens

Levonorgestrel IUD (MIRENA)

- 20 mcg levonorgestrel/day
- Progestin only method
- 5 years use
- Cost: ~$300-700
- Bleeding pattern:
  - Light spotting initially:
    - 25% at 6 months
    - ~10% at 1 year
  - Amenorrhea: in
    - 44% by 6 months
    - 50% by 12 months

Trussel J. Contraceptive Technology. 2007;
Levonorgestrel IUD (Skyla)

• 14 mcg levonorgestrel/day
• Progestin only method
• 3 years use
• Cost: ~$300-650
• Smaller in size than Mirena
  • 1.1 x 1.2 in. (vs. 1.3 x 1.3 in)
  • Inserter tube 0.15 in. (vs. 0.19 in)
• More irregular bleeding than Mirena
  • Only 6% have amenorrhea at 1 yr
Mirena/Skyla: Mechanism of action

- Fertilization inhibition:
  - Cervical mucus thickened
  - Sperm motility and function inhibited
  - Weak foreign body reaction induced
  - Ovulation inhibited (in 5-15% of cycles)

Videla-Rivero et al. Contraception 1987;36:217
Copper-T IUD: PARAGARD

- Copper ions
- No hormones
- 12 years of use
- Cost: ~$150-475
- 99% effective as EC
- Bleeding Pattern:
  - Menses regular
  - May be heavier, longer, crampier for first 6 months

Paragard: mechanism of action

- **Spermicidal**
  - Copper ions block sperm motility and enzymes needed to fertilize the egg
  - Sterile inflammatory reaction in endometrium kill sperm

Which IUD is the best choice?

<table>
<thead>
<tr>
<th>Copper T IUD (Paragard)</th>
<th>LNG IUD (Mirena)</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Want regular periods</td>
<td>▶ OK w/irregular bleeding</td>
</tr>
<tr>
<td>▪ Want no hormones</td>
<td>▶ OK w/amenorrhea</td>
</tr>
<tr>
<td>▪ No h/o dysmenorrhea</td>
<td>▶ H/O dysmenorrhea</td>
</tr>
<tr>
<td>▪ No h/o menorrhagia</td>
<td>▶ H/O menorrhagia</td>
</tr>
</tbody>
</table>

2014
IMPLANT: Nexplanon (Implanon)

- Progesterone only (etonogestrel)
- Effective for 3 years
- Cost: ~$300-600
- Mechanism: Inhibits ovulation
- Bleeding pattern:
  - Amenorrhea (22%)
  - Infrequent (34%)
  - 11% stop due to frequent bleeding

Dispelling myths

When providers or patients hold misperceptions about the risks associated with contraception...

Teens’ choices are unnecessarily limited
Myths

- IUDs cause PID and Infertility
- IUDs are only for women who had had a baby
IUDs do NOT cause PID

- PID incidence for IUD users similar to that of general population
- Risk increased only during first month after insertion, still extremely low (1/1000)
- Preexisting STI at time of insertion (not the IUD itself) increases risk

=> R/O GC/CT in at risk women
  - In Asx teens may insert & screen

IUDs do not cause infertility… 
Chlamydia does!

- 2000 women case-control
- IUD users NOT more likely to have infertility than gravid controls (OR=0.9)
- Women with CT antibodies more likely to be infertile (OR=2.4)
- IUD use is not related to infertility
- Chlamydia is related to infertility
- Similar results in multiple studies

Almost **ALL TEENS** can use IUDs

**WHO CAN USE IUDS:**
- Teens? **YES!**
- Never been pregnant? **YES!**
- Multiple partners? **YES!**
- History of STD? **YES!**
- History of PID? **YES!**
- History of ectopic? **YES!**

*MacIsaac L. Obstet Gynecol Clin N Am. 2007;*  
ACOG: IUDs & teens

- “Intrauterine devices are safe to use among adolescents.”
- “Intrauterine devices do not increase an adolescent’s risk of infertility.”
- “Intrauterine devices may be inserted without technical difficulty in most adolescents and nulliparous women.”
“With top-tier effectiveness, high rates of satisfaction and continuation, and no need for daily adherence, **LARC methods should be first-line recommendations for adolescents.**”

“Health care providers’ concerns about LARC use by adolescents are a barrier to access.”
**CDC USMEC:**

**U.S. Medical Eligibility Criteria**

**Key:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sub-condition</th>
<th>Combined pill, patch, ring</th>
<th>Progestin-only pill</th>
<th>Injection</th>
<th>Implant</th>
<th>LNG-IUD</th>
<th>Copper-IUD</th>
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<tbody>
<tr>
<td>Age</td>
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<td>I</td>
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<td>&gt;20=1</td>
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**CDC: LARC & teens**
IUDs have **VERY FEW** contraindications

- **Current** PID
- **Current** untreated mucopurulent cervicitis, gonorrhea, or chlamydia
- Post abortion/partum infection in past 3 mo.
- Current or suspected pregnancy
- Anatomically distorted uterine cavity
- Wilson’s disease (Paragard)
  - Other: Uncommon issues for TEENS
    - Known cervical or uterine cancer
    - Known Breast Cancer (Mirena only)
    - Genital bleeding of unknown etiology

**CDC US Medical Eligibility Criteria 2010**
IMPLANT: Only **ONE** Contraindication

- **Current Breast Cancer**

- Important to know about Class labeling of implant with CHC by FDA.
Young pregnant women lack knowledge about IUDs

How safe/effective are IUDs compared to pills, injections, or tubal sterilization?

Unsure of safety | Unsure of efficacy
---|---
71% | 58%

IUC insertion: What to expect?
Implant insertion: What to expect?
Training to insert implants

- Training available exclusively through Merck

- Those trained in Implanon can be trained online to insert and remove Nexplanon

Referring teens for LARC

- Planned Parenthood
- Family Planning Clinics
- Ob/gyn
- LARC Locator

http://larc.arhp.org/
Making LARC affordable

- Family Planning Benefits Program (FPBP) (NEW YORK)
  - On site screening at most PP & FP clinics
  - Confidential
  - Presumptive Eligibility for teens
  - Insured teens may apply for confidentiality
  - LARC is FREE!!!!
  - Watch the full webinar on FPBP at nypath.org

- Contraceptive coverage under ACA
Please complete your evaluations now

Adolescent Reproductive & Sexual Health Education Program