Teen Pregnancy Prevention: Application of CDC’s Evidence-Based Contraception Guidance

Division of Reproductive Health
Centers for Disease Control and Prevention
Learning Objectives

Participants will be able to:

- Review the trends in teen pregnancy, sexual behavior and contraceptive use
- Describe current contraceptive methods available to teens
- Describe the current evidence-based recommendations about the safety and effectiveness of contraceptive methods for teens
- Discuss clinical preventive services to improve outcomes and quality of life
SECTION I. TRENDS IN TEEN PREGNANCY, SEXUAL BEHAVIOR AND CONTRACEPTIVE USE
Current Trends

1. Pregnancy, birth and abortion rates are declining in the U.S. for teens aged 15-19 years old.

2. Teen birth rates vary by age, race/ethnicity and state.

3. The U.S. still has the highest teen birth rate of any industrialized country.

4. Teens use less effective methods and use these methods inconsistently.
Pregnancy, birth and abortion rates for teens, 15-19 years old

Adolescent pregnancy in U.S.

1 in 4 adolescent girls will become pregnant by age 20

The National Campaign to Prevent Teen and Unplanned Pregnancy, April 2016.
Adolescent pregnancy in U.S.

2 in 5 Black girls will become pregnant by age 20

1 in 3 Hispanic girls will become pregnant by age 20

The National Campaign to Prevent Teen and Unplanned Pregnancy, April 2016.
Teen birth rate by age

Figure 1. Birth rates for females aged 15–19, by age group: United States, 1991–2015

NOTES: Rates are plotted on a logarithmic scale. For each age group, differences are significant (p < 0.05) from 1991 to 2015, 2007 to 2015, and 2014 to 2015. Access data table for Figure 1 at: http://www.cdc.gov/nchs/data/databriefs/db259_table.pdf#1. SOURCE: NCHS, National Vital Statistics System, Natality.

Hamilton. Continued Declines in Teen Births in the United States, 2015. NCHS Data Brief. 2016;No.259:Figure 1.
Teen pregnancy birth rates by state per 1,000 girls, 2012

Ventura. National and State Patterns of Teen Births in the United States, 1940-2013. National Vital Statistics Reports. 2014;63(4):Figure 11
Teen birth rate (per 1,000 females, 15-19 years old) by country

Countries

- Switzerland
- Japan
- Netherlands
- Sweden
- Denmark
- Italy
- Finland
- Norway
- Germany
- France
- Greece
- Spain
- Canada (2009)
- Portugal
- Australia
- United Kingdom
- United States (2012)

Rate* (per 1,000 females in the age group)

*All rates are from 2013 unless otherwise stated

Percent of U.S. pregnancies that were unintended, 2011

**Consequences**

- **Infant**
  - Prematurity
  - Infant mortality
  - Abuse
  - Future teen pregnancy

- **Teen Mom**
  - Low educational attainment
  - Unemployment
  - Poverty
  - Risk for repeat pregnancy

- **Society**
  - $9.4 billion national cost in 2010
  - $2.1 billion in public sector healthcare in 2010

http://www.guttmacher.org/pubs/FB-ATSRH.html  
Goals of teen pregnancy prevention

- Decrease pregnancies among sexually active female teens
- Delay initiation of teen sexual activity
- Increase use of effective contraceptive methods, including LARC

http://www.cdc.gov/winnablebattles/Goals.html
Percentage of high school students who ever had sexual intercourse, by sex and race/ethnicity, 2015

- Total: 41.2%
- Female: 39.2%
- Male: 43.2%
- White: 39.9%
- Black: 48.5%
- Hispanic: 42.5%

Percentage of high school students who were currently* sexually active, by sex and race/ethnicity, 2015

*Currently is defined as having had sexual intercourse in the 3 months before the administered survey

Use of contraception among sexually experienced females, 15-19 years old


Use of contraception at first sex among females, 15-19 years old

![Bar chart showing the use of contraception at first sex among females aged 15-19, by method used: United States, 2006-2010.](chart)

*Includes Lunelle injectable, emergency contraception, and contraceptive patch in 2002; adds contraceptive ring (Nuva-Ring) and Implanon implant in 2006-2010.*

**Figure 2. Use of contraception at first sex among females aged 15-19, by method used: United States, 2006-2010**
Use of contraceptive at last sex among teens

- Females, 15-19 years old: 86%
- Males, 15-19 years old: 93%

Percentage of high school students who used a condom during last sexual intercourse* by sex and race/ethnicity, 2015

* Among the 30.1% of students nationwide who were currently sexually active.
Impact of inconsistent and non-use of contraception on teens

- 46% of teen pregnancies due to non-use of contraception

- 54% of teen pregnancies due to contraceptive failure related to:
  - Use of moderately or less effective methods
  - Incorrect or inconsistent use

Declines in adolescent pregnancy

- From 2007-2011 pregnancy rate among adolescents 15-19 years old in the U.S. dropped 25%

- Majority of decline attributable to increased contraceptive use among adolescents

Lindberg, J Adolesc Health. 2016.06.024; [Epub ahead of print]
Why teen moms did not use contraception

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thought could not get pregnant</td>
<td>31.4</td>
</tr>
<tr>
<td>Partner did not want to use contraception</td>
<td>23.6</td>
</tr>
<tr>
<td>Did not mind if got pregnant</td>
<td>22.1</td>
</tr>
<tr>
<td>Trouble getting birth control</td>
<td>13.1</td>
</tr>
<tr>
<td>Side effects from contraception</td>
<td>9.4</td>
</tr>
<tr>
<td>Thought she or partner was sterile</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Abstinence is the only 100% effective way to prevent HIV, other sexually transmitted infections (STIs), and pregnancy.
SECTION II.
CONTRACEPTIVE METHODS
Use of specific method(s) at last intercourse by females, 15-19 years old in 2012

- Condom: 55%
- Pill: 35%
- Withdrawal: 20%
- DMPA: 7%
- IUD/Implant: 3%
- Patch/Ring: 1%

Lindberg, J Adolesc Health. 2016.06.024; [Epub ahead of print]
Effectiveness of family planning methods

Effectiveness of Family Planning Methods

- **Tier 1**: Male Sterilization (Vasectomy) and female sterilization are the most effective methods. Male sterilization is more effective than female sterilization.
- **Tier 2**: Injectable, Pill, Patch, Ring, and Diaphragm are effective for contraceptive purposes. Injectable has the highest effectiveness among these methods.
- **Tier 3**: Male Condom, Female Condom, Withdrawal, and Spermicide are less effective. Fertility-awareness based methods are the least effective.

*The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.*

Typical Use and Perfect Use

- **Typical Use**
  - Failure rate
  - Average person
  - Not always consistent or correct
  - During first year

- **Perfect Use**
  - Failure rate
  - Use is consistent and correct
  - At every sex act
  - During the first year

Trussell, Contraception, 2011 May;83(5):397-404
Reversible Tier 1 Methods: “Most Effective”

Long Acting Reversible Contraception (LARC)
- Levonorgestrel-releasing IUD
- Copper IUD
- Implant
TIER 1 for Adolescents:
Long Acting Reversible Contraception (LARC)

- “Forgettable contraception”
- Not dependent on compliance/adherence
- “Expanding access to LARC for young women has been declared a national priority” (IOM)
- “Should be considered as first-line choices for both nulliparous and parous adolescents” (ACOG 2007)
- “LARC methods should be considered first-line contraceptive choices for adolescents” (AAP 2014)

Levonorgestrel IUD

- Effective for at least 3 or 5 years
- Side effects: irregular bleeding
- Reduces dysmenorrhea and menstrual blood loss
- Does not protect against STIs

Contraceptive Technology, 20th edition
http://www.accessdata.fda.gov/scripts/cder/drugsatfda
Copper IUD

- Approved for 10 years
- Side effects: irregular bleeding, heavy bleeding
- Most effective emergency contraception
- Does not protect against STIs

Contraceptive Technology, 20th edition
http://www.accessdata.fda.gov/scripts/cder/drugsatfda
Contraceptive implant

- Effective for at least 3 years
- Side effects: irregular bleeding
- Does not protect against STIs

Contraceptive Technology, 20th edition
Barriers to LARC provision

- Patient preference
- Concern about safety
  - Risk of PID
  - Risk of STIs
  - Nulliparous, adolescent, not monogamous
- Not trained in IUD insertion
- IUDs not available on site
- Full reimbursement challenges

Madden, Contraception. 2010;81(2):112-6
Teen use of LARCs

- **Barriers**
  - Cost
  - Knowledge and attitudes
    - 80% of adolescents never heard of IUD

- **Opportunity – CHOICE Project in St. Louis, MO**
  - women educated about LARC
  - Provided all methods without cost
    - 62% of adolescents (15-19 years) chose LARC

Whitaker, Contraception 2008;78:211.
Mestad, Contraception 2011;84:493.
Results among females aged 15-19 years from CHOICE project

- **Teen Pregnancy Rates** (no. per 1000)
  - CHOICE teens: 34.0
  - U.S. sexually experienced teens*: 158.5

- **Teen Birth Rates** (no. per 1000)
  - CHOICE teens: 19.4
  - U.S. sexually experienced teens: 94.0

- **Teen Abortion Rates** (no. per 1000)
  - CHOICE teens: 9.7
  - U.S. sexually experienced teens: 41.5

† Data are the mean annual rates for the years 2008-2013
* Data are the U.S. rates for the year 2008

Tier 2 Methods: “Moderately Effective”

- Injectable (DMPA)
- Pill
- Patch
- Ring

Contraceptive Technology, 20th edition
Correct and consistent use

- Methods that require more effort by the user have higher typical failure rates
- Correct and consistent use of pills and condoms may be difficult for all ages
- Women ages 18-24, in last 3 months
  - 45% missed > 1 pill
  - 62% did not use condoms every time

Depot medroxyprogesterone acetate (DMPA)

- One injection every 3 months
- Reliable contraception for 3 months, but effects may last up to 9 months
- Side effects: irregular bleeding and amenorrhea
- Does not protect against STIs
Contraceptive pills

- Combined pills contain estrogen and progestin (COCs)
- Progestin-only pills (POPs)
- Extended use
- Side effects: irregular bleeding
- Do not protect against STIs
Contraceptive patch

- Releases estrogen and progestin
- One patch per week for 3 weeks, then 1 patch-free week
- Side effects: irregular bleeding
- Does not protect against STIs
Contraceptive vaginal ring

- Releases estrogen and progestin
- One ring for 3 weeks, then 1 ring-free week
- Side effects: irregular bleeding
- Does not protect against STIs
Quick Start

- Initiation of contraception on any day of the cycle if reasonably certain the woman is not pregnant
- More reliable and faster protection from unplanned pregnancies
- Advise 7 days of backup or abstinence if needed
- Improves short-term continuation
- No increase in unscheduled bleeding

Contraceptive Technology, 20th edition
# U.S. Selected Practice Recommendations (US SPR)

## When to Start Using Specific Contraceptive Methods

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>When to start (if the provider is reasonably certain that the woman is not pregnant)</th>
<th>Additional contraception (i.e., back up) needed</th>
<th>Examinations or tests needed before initiation¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper-containing IUD</td>
<td>Anytime</td>
<td>Not needed</td>
<td>Bimanual examination and cervical inspection²</td>
</tr>
<tr>
<td>Levonorgestrel-releasing IUD</td>
<td>Anytime</td>
<td>If &gt;7 days after menses started, use back-up method or abstain for 7 days.</td>
<td>Bimanual examination and cervical inspection²</td>
</tr>
<tr>
<td>Implant</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 7 days.</td>
<td>None</td>
</tr>
<tr>
<td>Injectable</td>
<td>Anytime</td>
<td>If &gt;7 days after menses started, use back-up method or abstain for 7 days.</td>
<td>None</td>
</tr>
<tr>
<td>Combined hormonal contraceptive</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 7 days.</td>
<td>Blood pressure measurement</td>
</tr>
<tr>
<td>Progestin-only pill</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 2 days.</td>
<td>None</td>
</tr>
</tbody>
</table>

¹ Examinations or tests needed before initiation vary depending on the specific contraceptive method used. Please consult the latest guidelines for detailed instructions.

² Bimanual examination and cervical inspection are recommended for all methods to assess the presence of a pregnancy or any potential medical conditions.

---

MMWR. Recommendations and Reports. 2016 Jul;65(4):1-66
Tier 3: “Least Effective”

- Condoms (male and female)
- Diaphragms, cervical cap, sponge
- Fertility awareness-based methods
- Withdrawal
- Spermicides

Contraceptive Technology, 20th edition
Emergency Contraception

- Up to 120 hours after unprotected sex
- Two methods of delivery
  - Copper IUD
  - Emergency Contraceptive Pills (ECPs)
Emergency contraceptive pills

- Ulipristal acetate
  - Anti-progesterone, single pill
  - More effective than LNG between 3-5 days
  - May be more effective than LNG among obese
  - Prescription only

- Levonorgestrel
  - Available as one or two pills over the counter
  - Progestin-only

- Yuzpe Method
  - Combined estrogen/progestin pills, multiple pills
  - less effective, more side effects

Contraceptive Technology, 20th edition
MMWR. Recommendations and Reports. 2016 Jul;65(4):1-66
Non-contraceptive benefits

- **Dysmenorrhea**: COCs, implant, LNG-IUD
- **Cycle Control**: LNG-IUD, DMPA, COCs
- **Cancer protection**: COCs protect against ovarian and endometrial cancer
- **Ectopic Pregnancy**: COCs
- **Acne**: COCs and possibly patch and ring
- **Menstrual suppression**: Continuous CHCs, DMPA, implants, LNG-IUD
- **Pain from Endometriosis**: COCs, DMPA, implant, LNG-IUD
- **Premenstrual or menstrual-related symptoms**: extended or continuous use of CHCs, or any menstrual suppression
DUAL PROTECTION
Typical effectiveness of family planning methods

Effectiveness of Family Planning Methods

- **Most Effective**
  - Implant
  - Intrauterine Device (IUD)
  - Male Sterilization ( Vasectomy)
  - Female Sterilization (Abdominal, Laparoscopic, Hysteroscopic)

- **Injectable**
  - LNG - 0.2%
  - Copper T - 0.8%

- **Pill**
  - 0.05%

- **Patch**
  - 0.15%

- **Ring**
  - 0.5%

- **Diaphragm**
  - Injectible: Get repeat injections on time.
  - Pessary: Take a pill each day.
  - Ring: Keep in place, change on time.
  - Diaphragm: Use correctly every time you have sex.

- **Least Effective**
  - Male Condom
  - Female Condom
  - Withdrawal
  - Sponge

- **Fertility-Awareness Based Methods**
  - January

- **Spermicide**
  - 24%

*Note: The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.

Tier 1
Tier 2
Tier 3

Condoms

- Male and female condoms
- Male latex condoms reduce risk of STIs, including HIV, when used correctly and consistently
- Female condoms give women shared responsibility of the condom in addition to reducing the risk of STIs and HIV.

Contraceptive Technology, 20th edition
Chlamydia – Rates of Reported Cases by Age and Sex, United States, 2014

<table>
<thead>
<tr>
<th>Men</th>
<th>Rate (per 100,000 population)</th>
<th>Women</th>
<th>Age 0</th>
<th>800</th>
<th>1600</th>
<th>2400</th>
<th>3200</th>
<th>4000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>10-14</td>
<td>15-19</td>
<td>20-24</td>
<td>25-29</td>
<td>30-34</td>
<td>35-39</td>
</tr>
<tr>
<td>4000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td>12.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>718.3</td>
<td></td>
<td></td>
<td>718.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1368.3</td>
<td></td>
<td></td>
<td>1368.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>837.0</td>
<td></td>
<td></td>
<td>837.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>430.6</td>
<td></td>
<td></td>
<td>430.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>234.0</td>
<td></td>
<td></td>
<td>234.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>132.3</td>
<td></td>
<td></td>
<td>132.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66.4</td>
<td></td>
<td></td>
<td>66.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.6</td>
<td></td>
<td></td>
<td>20.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td></td>
<td></td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>278.4</td>
<td></td>
<td></td>
<td>278.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CDC 2015; STD Surveillance 2014 – Chlamydia: Figure. 5
Effectiveness of Contraceptive Methods at Preventing STIs and Pregnancy

STI Protection

Good

Male Condoms

Moderate

Female Condoms Spermicides

Periodic Abstinence

None

OCs

IUD Injectables Implants

Pregnancy Protection (Typical Use)

Dual Protection Strategies

- Hormonal/IUD+ condoms (dual method)
- Consistent condom use

Adapted from Cates, Sex Transm Dis. 2002 Mar;29(3):168-74
Dual Protection Guidance

- “Although hormonal contraceptives and IUDs are highly effective at preventing pregnancy, they do not protect against STDs, including HIV. Consistent and correct use of the male latex condom reduces the risk for HIV infection and other STDs, including chlamydial infection, gonococcal infection, and trichomoniasis” --- U.S. Medical Eligibility Criteria for Contraceptive Use, 2016

- “Condoms…should be used by all sexually active adolescents regardless of whether an additional method of contraception is used….. When initiating any hormonal contraceptive method, the need for consistent protection against STIs (either male or female condoms) should be reinforced. “ --- American Academy of Pediatrics, Committee on Adolescence

MMWR. Recommendations and Reports. 2016 Jul;65(3):1-104
Blythe, Pediatrics. 2007 Nov;120(5):1135-48
Dual Protection in Healthy People 2020

- FP-10 Increase the proportion of sexually active persons aged 15 to 19 years who use condoms to both effectively prevent pregnancy and provide barrier protection against disease

- FP-11 Increase the proportion of sexually active persons aged 15 to 19 years who use condoms and hormonal or intrauterine contraception to both effectively prevent pregnancy and provide barrier protection against disease

### Prevalence of Dual Protection among Female Teens in the U.S.

<table>
<thead>
<tr>
<th>Source</th>
<th>Population</th>
<th>Dual Method (at last sex) (hormonal and condom)</th>
<th>Consistent Condom Use (last 4 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSFG, 2006-2008</td>
<td>Ages 15-19, sexually active unmarried females</td>
<td>20.8%</td>
<td>51.6%</td>
</tr>
</tbody>
</table>

SECTION III.
U.S. FAMILY PLANNING GUIDANCE
U.S. MEDICAL ELIGIBILITY CRITERIA, 2016
U.S. Medical Eligibility Criteria for Contraceptive Use, 2016 (U.S. MEC)

- First published in 2010 and updated in 2016

- Guidelines for providers to determine safety of contraceptives for women with certain medical conditions or characteristics
  - Ex: Is it safe for woman with hypertension to use the pill?
  - Ex: Is it safe for a postpartum woman to use IUDs?

- Guidance for 17 contraceptive methods and >120 conditions

- Providers should always consider individual clinical circumstances when counseling patients
MEC Categories

1. A condition for which there is no restriction for the use of the contraceptive method.

2. A condition where the advantages of using the method generally outweigh the theoretical or proven risks.

3. A condition where the theoretical or proven risks usually outweigh the advantages of using the method.

4. A condition which represents an unacceptable health risk if the contraceptive method is used.
How YOU can use the US MEC
Online access

CDC Contraceptive Guidance for Health Care Providers

U.S. Medical Eligibility Criteria for Contraceptive Use, 2016 (US MEC)

The 2016 U.S. Medical Eligibility Criteria for Contraceptive Use (US MEC) comprises recommendations for the use of specific contraceptive methods by women and men who have certain characteristics or medical conditions. The recommendations in this report are intended to assist health care providers when they counsel women, men, and couples about contraceptive method choice.

U.S. Selected Practice Recommendations for Contraceptive Use, 2016 (US SPR)

The 2016 U.S. Selected Practice Recommendations for Contraceptive Use (US SPR) addresses a select group of common, yet sometimes controversial or complex, issues regarding initiation and use of specific contraceptive methods. The recommendations in this report are intended to serve as a source of clinical guidance for health care providers and provide evidence-based guidance to reduce medi

Quality Family Planning

Providing Quality Family Planning Services (QFP) recommends how to provide family planning services so that in their desired number and spacing of children, increase the chances that a baby will be born healthy, and improve choose to not have children.
2016 U.S. MEC App

CDC Contraception 2016

MEC by Condition

MEC by Method

SPR

About this App

Full Guidelines

Provider Tools

Select Method (MEC)

Intrauterine Contraception

Progestin-only Contraceptives

Combined Hormonal Contraceptives

Barrier Methods

Fertility Awareness-based Methods

Lactational Amenorrhea Method

Coitus interruptus
U.S. MEC Summary Chart and Wheel
### US MEC categories for safety of methods among women of different ages

<table>
<thead>
<tr>
<th>Age</th>
<th>IUD</th>
<th>Implant</th>
<th>DMPA</th>
<th>POP</th>
<th>CHCs</th>
<th>Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20</td>
<td>All ages</td>
<td>&lt;18</td>
<td>All ages</td>
<td>&lt;40</td>
<td>All ages</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No restriction</td>
</tr>
<tr>
<td>2</td>
<td>Generally can use</td>
</tr>
<tr>
<td>3</td>
<td>Generally do not use</td>
</tr>
<tr>
<td>4</td>
<td>Do not use</td>
</tr>
</tbody>
</table>
Myth: IUDs cause pelvic inflammatory disease and infertility
   – Fact: Chlamydia and gonorrhea cause PID and can lead to infertility
Myth: DMPA causes fractures
   – Fact: Small amount of bone mineral density lost during use, regained after discontinuation
Myth: Contraceptive pills cause cancer
   – Fact: Protects against ovarian and endometrial cancer
Clinical Scenario 1

- 16 year old female, healthy, nulliparous, currently using condoms, but wants more reliable method. Which of the following options are available to her?

A. IUD (copper or levonorgestrel)
B. Implants
C. DMPA
D. Combined hormonal methods (pill, patch, ring)
Safety of IUDs for Teens

- **IUDs and age <20: US MEC 2**
- **IUDs and Expulsion**
  - Evidence shows slightly increased risk of expulsion in younger women
- **IUDs and infertility**
  - No evidence that IUDs cause later infertility
  - Infertility associated with gonorrhea and chlamydia
- **IUDs and STIs**
  - No evidence that IUDs increase risk of STI acquisition
  - Women with current purulent cervicitis, chlamydial infection, gonorrhea should not start an IUD (US MEC 4)
  - Women with risk factors for STDs may be screened at the time of IUD insertion, but insertion should not be delayed (US MEC 2)
Safety of DMPA for Teens

- DMPA and age <18: US MEC 2
- DMPA and Bone mineral density (BMD)
  - Small amounts of BMD lost using DMPA
  - BMD regained after discontinuation
  - Unclear how BMD relates to fracture risk in adolescents
  - No evidence that DMPA increases fracture in adolescents
- DMPA and Obesity
  - Obese adolescents who use DMPA may be more likely to gain weight than non-obese DMPA users and obese users of other methods
Clinical Scenario 1

- 16 year old female, healthy, nulliparous, currently using condoms, but wants more reliable method. What options are available to her?

A. IUD (copper or levonorgestrel) (US MEC 2)
B. Implants (US MEC 1)
C. DMPA (US MEC 2)
D. Combined hormonal methods (pill, patch, ring) (US MEC 1)

ALL OF THE ABOVE! Plus…

Encourage continued condom use for dual protection
Clinical Scenario 2

• 18 year old G1P0, pregnant, and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her immediately postpartum?

A. IUD (copper or levonorgestrel)
B. Progestin-only methods (pill, injectable, implant)
C. Combined hormonal methods (pill, patch, ring)
## Postpartum: Hormonal Contraception

<table>
<thead>
<tr>
<th>Condition</th>
<th>Combined methods</th>
<th>Progestin-only methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum (non-breastfeeding women)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) &lt; 21 days</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>b) 21 days to 42 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) With other risk factors for VTE</td>
<td>3*</td>
<td>1</td>
</tr>
<tr>
<td>ii) Without other risk factors for VTE</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c) &gt; 42 days</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Legend:**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No restriction</td>
</tr>
<tr>
<td>2</td>
<td>Generally can use</td>
</tr>
<tr>
<td>3</td>
<td>Generally do not use</td>
</tr>
<tr>
<td>4</td>
<td>Do not use</td>
</tr>
</tbody>
</table>
## Postpartum IUD Insertion

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sub-Condition</th>
<th>LNG-IUD</th>
<th>Cu-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum (including cesarean delivery)</td>
<td>a) &lt;10 minutes after delivery of placenta</td>
<td>2*</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td>Breastfeeding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not breastfeeding</td>
<td>1*</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td>b) 10 minutes after delivery of placenta to &lt;4 weeks</td>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td></td>
<td>c) ≥ 4 weeks</td>
<td>1*</td>
<td>1*</td>
</tr>
<tr>
<td></td>
<td>d) Postpartum sepsis</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

* Higher rates of expulsion should be considered

<table>
<thead>
<tr>
<th>Number</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No restriction</td>
</tr>
<tr>
<td>2</td>
<td>Generally can use</td>
</tr>
<tr>
<td>3</td>
<td>Generally do not use</td>
</tr>
<tr>
<td>4</td>
<td>Do not use</td>
</tr>
</tbody>
</table>
Clinical Scenario 2

- 18 year old G1P0, pregnant, and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her immediately postpartum?

A. IUD: Cu-IUD (US MEC 1) or LNG-IUD (US MEC 2)
B. Progestin-only methods (pill, injectable, implant) (US MEC 1)
C. Combined hormonal methods (pill, patch, ring) (US MEC 4) (Wait until 21-42 days postpartum, depending on VTE risk factors)

Encourage Dual protection with condom use
Clinical Scenario 3

16yo nulliparous female with heavy cycles and dysmenorrhea presents with her mother since she is missing school at the start of most periods. She is sexually active with her boyfriend using condoms. What options are available to her?

A. IUD (copper or levonorgestrel)
B. Implants
C. DMPA
D. Combined hormonal methods (pill, patch, ring)
Clinical Scenario 3

• 16yo nulliparous female with heavy cycles and dysmenorrhea presents with her mother since she is missing school at the start of most periods. She is sexually active with her boyfriend using condoms. What options are available to her?

A. IUD (copper or levonorgestrel) (US MEC 2)
B. Implants (US MEC 1)
C. DMPA (US MEC 2)
D. Combined hormonal methods (pill, patch, ring) (US MEC 1)
E. All of the above

Encourage continued condom use for dual protection
US SELECTED PRACTICE RECOMMENDATIONS
US Selected Practice Recommendations for Contraceptive Use, 2016

- Companion document to US MEC, 2016
- First published in 2013 and updated in 2016
- Intent: Evidence-based guidance for common contraceptive management questions
  - When to start
  - Missed pills
  - Bleeding problems
  - Exams and test
  - Follow-up
  - How to be reasonably certain that a woman is not pregnant
US Selected Practice Recommendations for Contraceptive Use, 2016

- Target audience: health-care providers
- Guidance for healthcare providers when counseling patients about initiation and use of specific contraceptive methods
- Applies to women of all ages, including adolescents
- What is NOT included in the US SPR
  - NOT the Medical Eligibility Criteria
  - NOT comprehensive textbook
  - NOT rigid guidelines
  - NOT well-woman care
Format of US SPR

- Arranged by contraceptive method

- For each recommendation:
  - Recommendation itself
  - Comments and evidence summary

- Simplified text of actual recommendations

- Bullets, tables, flowcharts, algorithms
How YOU can use the US SPR
Online access

http://wwwdev.cdc.gov/reproductivehealth/contraception/contraception_guidance.htm
CLINICAL SCENARIOS
Clinical Scenario 1: When to start a contraceptive method?

- 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: When can she start?
When can a woman start a contraceptive method

- **Barriers to starting any method**
  - Waiting for next menses to initiate method
  - Coming back for a second (or more) visit
  - Filling a prescription

- **Starting when woman requests contraception ("Quick start")**
  - May reduce time woman is at risk for pregnancy
  - May reduce barriers to starting
### When to Start Using Specific Contraceptive Methods

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>When to start (if the provider is reasonably certain that the woman is not pregnant)</th>
<th>Additional contraception (i.e., back up) needed</th>
<th>Examinations or tests needed before initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper-containing IUD</td>
<td>Anytime</td>
<td>Not needed</td>
<td>Bimanual examination and cervical inspection 2</td>
</tr>
<tr>
<td>Levonorgestrel-releasing IUD</td>
<td>Anytime</td>
<td>If &gt;7 days after menses started, use back-up method or abstain for 7 days.</td>
<td>Bimanual examination and cervical inspection 2</td>
</tr>
<tr>
<td>Implant</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 7 days.</td>
<td>None</td>
</tr>
<tr>
<td>Injectable</td>
<td>Anytime</td>
<td>If &gt;7 days after menses started, use back-up method or abstain for 7 days.</td>
<td>None</td>
</tr>
<tr>
<td>Combined hormonal contraceptive</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 7 days.</td>
<td>Blood pressure measurement</td>
</tr>
<tr>
<td>Progestin-only pill</td>
<td>Anytime</td>
<td>If &gt;5 days after menses started, use back-up method or abstain for 2 days.</td>
<td>None</td>
</tr>
</tbody>
</table>
When to start a contraceptive method: Other situations

- Amenorrheic
- Postpartum
  - Breastfeeding
  - Not breastfeeding
- Postabortion
- Switching from another contraceptive method
Clinical Scenario 1: When to start a contraceptive method?

• 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: When can she start?

A: Anytime, if reasonably certain she is not pregnant.
  • If it has been more than 5 days since menstrual bleeding started, she will need to abstain from sex or use additional contraceptive protection for the next 7 days
Clinical Scenario 2: How to be reasonably certain that a woman is not pregnant

- 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: How can you be reasonably certain she is not pregnant?
Evidence: Pregnancy test limitations

- Pregnancy detection rates can vary based on sensitivity of test and timing with respect to missed menses
- Pregnancy test not able to detect pregnancy resulting from recent intercourse
- Pregnancy test may remain positive several weeks after pregnancy ends

BOX 2. How to be reasonably certain that a woman is not pregnant

A health care provider can be reasonably certain that a woman is not pregnant if she has no symptoms or signs of pregnancy and meets any one of the following criteria:

• is ≤7 days after the start of normal menses
• has not had sexual intercourse since the start of last normal menses.
• has been correctly and consistently using a reliable method of contraception
• is ≤7 days after spontaneous or induced abortion
• is within 4 weeks postpartum
• is fully or nearly fully breastfeeding (exclusively breastfeeding or the vast majority [≥85%] of feeds are breastfeeds), amenorrheic, and <6 months postpartum
### Evidence on Pregnancy Checklist (PC)

<table>
<thead>
<tr>
<th>Study, year, country</th>
<th># Women</th>
<th>Positive preg test</th>
<th>Sensitivity of PC</th>
<th>Specificity of PC</th>
<th>PPV of PC</th>
<th>NPV of PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanback, 1999, Kenya</td>
<td>1852</td>
<td>1%</td>
<td>64%</td>
<td>89%</td>
<td>6%</td>
<td>99%</td>
</tr>
<tr>
<td>Stanback, 2006, Kenya</td>
<td>1852</td>
<td>1%</td>
<td>55%</td>
<td>90%</td>
<td>6%</td>
<td>99%</td>
</tr>
<tr>
<td>(without signs/sx)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanback, 2008, Nicaragua</td>
<td>263</td>
<td>1%</td>
<td>100%</td>
<td>60%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Torpey, 2010, Africa</td>
<td>535 HIV+</td>
<td>4%</td>
<td>90.9%</td>
<td>38.7%</td>
<td>6%</td>
<td>99%</td>
</tr>
<tr>
<td>Whiteman, 2015, USA</td>
<td>350 teens</td>
<td>9%</td>
<td>71%</td>
<td>76%</td>
<td>22%</td>
<td>96%</td>
</tr>
</tbody>
</table>

Stanback, J Fam Plann Reprod Health Care, 2006;32:27.
Whiteman, Obstet Gynecol, 2014;123;777-84.
Clinical scenario 2: How to be reasonably certain that a woman is not pregnant

• 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: How can you be reasonably certain she is not pregnant?

A: If she has no signs or symptoms of pregnancy and fulfills one of criteria, a provider can be reasonably certain that the women is not pregnant.
Clinical Scenario 3: Exams and tests

- 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: Do you need to do any exams or test before she starts?
US SPR
Exams and tests prior to initiation

- Unnecessary tests may be barrier to starting
  - Women (adolescents) may not be comfortable with pelvic exam
  - Coming back for a second (or more) visit to receive test results

- Recommendations address exams and test needed prior to initiation
  - Class A = essential and mandatory
  - Class B = contributes substantially to safe and effective use, but implementation may be considered within the public health and/or service context
  - Class C = does not contribute substantially to safe and effective use of the contraceptive method
# US SPR
Exams and tests prior to initiation

<table>
<thead>
<tr>
<th>Examination or test</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>A*</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Weight (BMI)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>C</td>
</tr>
<tr>
<td>Clinical breast examination</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Bimanual examination and cervical inspection</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratory test</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Lipids</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Liver enzymes</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Thrombogenic mutations</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Cervical cytology (Papanicolaou smear)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>STD screening with laboratory tests</td>
<td>—§</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>HIV screening with laboratory tests</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>
## US SPR

### Exams and tests prior to initiation

<table>
<thead>
<tr>
<th>Examination or test</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>A*</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Weight (BMI)</td>
<td>_†</td>
<td>_†</td>
<td>_†</td>
<td>_†</td>
<td>_†</td>
<td>C</td>
</tr>
<tr>
<td>Clinical breast examination</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Bimanual examination and cervical inspection</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

### Laboratory test

<table>
<thead>
<tr>
<th>Examination</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Lipids</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Liver enzymes</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Thrombogenic mutations</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Cervical cytology (Papanicolaou smear)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>STD screening with laboratory tests</td>
<td>_§</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>HIV screening with laboratory tests</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

---

*Note: LNG and Cu-IUD: Long-acting reversible contraception (LARC) and Copper Intrauterine Device (Cu-IUD).

*CHC: Combined hormonal contraceptive.

*POP: Progestin-only pill.

*Condom: Condom as a backup contraceptive method.

†: Mandatory.

§: Optional.
Pelvic Exam before Initiating Contraception

- Is not necessary before starting implant
- No US MEC 3 or 4 conditions will be detected by pelvic

Evidence:
- Two case-control studies
- Delayed versus immediate pelvic exam before contraception
- No differences in risk factors for cervical neoplasia incidence of STDs, incidence of abnormal Papanicoolou smears, or incidence of abnormal wet mounts were found

Tepper, Contraception. 2013 May;87(5):650-4.
## US SPR
Exams and tests prior to initiation

<table>
<thead>
<tr>
<th>Examination or test</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Weight (BMI)</td>
<td>___↑</td>
<td>___↑</td>
<td>___↑</td>
<td>___↑</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Clinical breast examination</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Bimanual examination and cervical inspection</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

### Laboratory test

<table>
<thead>
<tr>
<th>Examination</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Lipids</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Liver enzymes</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Thrombogenic mutations</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Cervical cytology (Papanicolaou smear)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>STD screening with laboratory tests</td>
<td>___§</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>HIV screening with laboratory tests</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>
Weight (BMI) Measurement before Initiating Contraception

- **Is not necessary before starting implant**

- **Footnote states:**
  
  “Weight (BMI) measurement is not needed to determine medical eligibility for any methods of contraception because all methods can be used (U.S. MEC 1) or generally can be used (U.S. MEC 2) among obese women. However, measuring weight and calculating BMI at baseline might be helpful for monitoring any changes and counseling women who might be concerned about weight change perceived to be associated with their contraceptive method.”
Clinical Scenario 3: Exams and tests

- 16 y.o. female comes to office desiring contraception and decides she wants the implant.

Q: Do you need to do any exams or test before she starts?

A: No
16 y.o. female comes to office desiring contraception and now decides she wants the levonorgestrel IUD.

Do any of the previous steps change?
Q1: When can she start?
Q2: How can you be reasonably certain she is not pregnant?
Q3: Do you need to do any exams or tests before she starts?
## US SPR

### Exams and tests prior to initiation

<table>
<thead>
<tr>
<th>Examination or test</th>
<th>LNG and Cu-IUD</th>
<th>Implant</th>
<th>Injectable</th>
<th>CHC</th>
<th>POP</th>
<th>Condom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>A*</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Weight (BMI)</td>
<td>___†</td>
<td>___†</td>
<td>___†</td>
<td>___†</td>
<td>___†</td>
<td>C</td>
</tr>
<tr>
<td>Clinical breast examination</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Bimanual examination and cervical inspection</td>
<td>A</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

### Laboratory test

<table>
<thead>
<tr>
<th>Glucose</th>
<th>C</th>
<th>C</th>
<th>C</th>
<th>C</th>
<th>C</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipids</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Liver enzymes</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Thrombogenic mutations</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Cervical cytology (Papanicolaou smear)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>STD screening with laboratory tests</td>
<td>___§</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>HIV screening with laboratory tests</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>
Clinical scenario 3: Exams and tests

• 16 y.o. female comes to office desiring contraception and now decides she wants the levonorgestrel IUD.

Q3: Do you need to do any exams or test before she starts?
A: Pelvic exam and STI screening as appropriate.
Clinical Scenario 4: Emergency Contraception

- 17 y.o. female had unprotected intercourse 4 days ago and is worried about pregnancy.

  Q: What are her emergency contraception options?
Four options available in the US

- **Intrauterine device**
  - copper intrauterine device (Cu-IUD)

- **Emergency contraceptive pills (ECPs)**
  - ulipristal acetate (UPA) available in a single dose (30 mg)
  - levonorgestrel (LNG) in a single or split dose
  - estrogen/progestin in 2 doses
SPR Recommendation on Effectiveness

- Large systematic review of 42 studies showed that the pregnancy rate among emergency Cu-IUD users is 0.09%

- UPA and LNG ECPs have similar effectiveness when taken within 3 days after unprotected intercourse
  - UPA has been shown to be more effective than the LNG formulation between 3 and 5 days after unprotected intercourse.

- UPA may be more effective than LNG for women who are obese.

- The combined estrogen/progestin regimen is less effective than UPA or LNG and is associated with more frequent side effects

Clinical Scenario 4: Emergency Contraception

17 y.o. female had unprotected intercourse 4 days ago and is worried about pregnancy.

Q: What are her emergency contraception options?

A:

- Copper IUD
- Ulipristal acetate
- Levonorgestrel ECPs
- Combination estrogen/progestin pills
Clinical Scenario 4: Initiation of regular contraception after emergency contraception pills

- 17 y.o. female had unprotected intercourse 4 days ago and is worried about pregnancy. She has chosen to take UPA

  Q: When can she start regular contraception after ECPs?
Evidence

- Data limited to pharmacodynamics data and expert opinion.

- One pharmacodynamic study raised concern for decreased effectiveness of UPA if hormonal contraception was started the next day.

Cameron et al, Human Reproduction, 2015
Brache et al, Human Reproduction, 2015
Salcedo et al, Contraception, 2013
US SPR Recommendation:
When to initiate regular contraception after ECPs

- **Levonorgestrel or combined ECPs:**
  - Any regular contraceptive method can be started immediately
  - Abstain from intercourse or use backup for 7 days

- **UPA ECPs:**
  - Resume or start hormonal contraception no sooner than **five** days after UPA
  - Non-hormonal contraception can be started immediately
  - Abstain from intercourse or use backup for 7 days after starting contraception

- Advise the woman to have a pregnancy test, if she does not have a withdrawal bleed within 3 weeks.
Clinical Scenario 4: Initiation of regular contraception after emergency contraception pills

- 17y.o. female had unprotected intercourse 4 days ago and is worried about pregnancy.
  - Q: When can she start regular contraception after ECPs?
  - A: Depends on the type of ECP:
    - UPA: After 5 days
    - LNG/CHCs: Immediately
    - She will need to abstain from sex or use barrier contraception until she has been on the new method for 7 days or until her next menses, whichever comes first.
Take Home Messages

- Rates of adolescent pregnancy in the US are decreasing, but remain high.
- Adolescents who are at risk of unintended pregnancy need access to highly effective contraceptive methods.
- Adolescents are eligible to use all methods of contraception. There is no contraceptive method that an adolescent cannot use based on age alone.
- Long-acting, reversible contraception (LARCs) may be particularly suitable for many adolescents. IUDs and Implants are examples of LARCs.
- Dual protection should be encouraged for adolescents.
Take Home Messages

- Most women of any age can start methods anytime
- Few, if any, exams or tests are needed
- Anticipatory counseling for potential bleeding problems and proper management provided
- Routine follow-up generally not required
- Discuss emergency contraception often
- Regular contraception should be started after EC
How to find Teen Pregnancy information?

www.cdc.gov
The Importance of Prevention

In 2014, almost 250,000 babies were born to women aged 15–19 years, for a birth rate of 24.2 per 1,000 women in this age group. This is another historic low, and a drop of 9% from 2013. Birth rates fell 11% for women aged 15–17 years, and 7% for women aged 18–19 years. While reasons for the declines are not clear, teens seem to be less sexually active, and more of those who are sexually active seem to be using birth control than in previous years.
CDC Contraceptive Guidance

U.S. Medical Eligibility Criteria for Contraceptive Use, 2016 (US MEC)

The 2016 U.S. Medical Eligibility Criteria for Contraceptive Use (US MEC) comprises recommendations for the use of specific contraceptive methods by women and men who have certain characteristics or medical conditions. The recommendations in this report are intended to assist health care providers when they counsel women, men, and couples about contraceptive method choice.

U.S. Selected Practice Recommendations for Contraceptive Use, 2016 (US SPR)

The 2016 U.S. Selected Practice Recommendations for Contraceptive Use (US SPR) addresses a select group of common, yet sometimes controversial or complex, issues regarding initiation and use of specific contraceptive methods. The recommendations in this report are intended to serve as a source of clinical guidance for health care providers and provide evidence-based guidance to reduce medical barriers to contraception access and use.

Quality Family Planning

Providing Quality Family Planning Services (QFP) recommends how to provide family planning services so that individuals can achieve their desired number and spacing of children, increase the chances that a baby will be born healthy, and improve their health even if they choose to not have children.

Social Media Tools: Badges to Share

CDC has created buttons and badges to promote action and awareness for a number of health topics, campaigns, and health observances. You can become an advocate for health by posting one of the buttons or badges featured below to your Web site, blog, or social networking site.

http://www.cdc.gov/reproductivehealth/contraception/contraception_guidance
Resources

http://www.cdc.gov/mmwr/volumes/65/rr/rr6503a1.htm?_cid=rr6503a1_w

http://www.cdc.gov/mmwr/volumes/65/rr/rr6504a1.htm

CDC evidence-based family planning guidance documents:
http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm

CDC Vital Signs:
http://www.cdc.gov/vitalsigns/teenpregnancy
Use of trade names and commercial sources is for identification only and does not imply endorsement by the US Department of Health and Human Services.

The findings and conclusions in this presentation have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.