Contraception for Adolescents

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Topics for the Provider

- Condom Use and STIs
- Contraception and Emergency Contraception

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Condoms & STI's

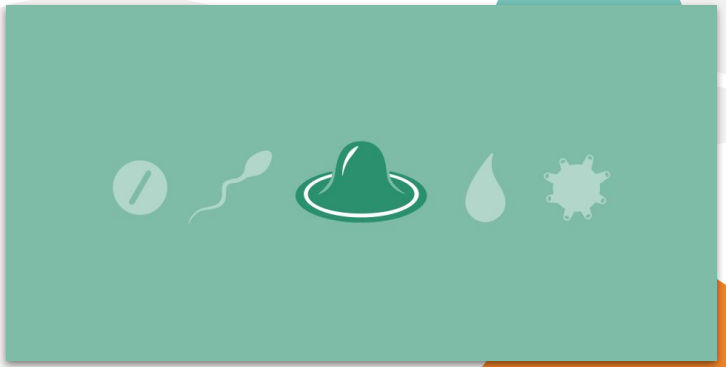
STI Statistics

- Rates of STI remain highest among adolescents and young adults (15 to 24 year olds) acquire nearly half of new STI's.
- Adolescent females have increased cervical ectopy (cervical columnar cells) more predisposed to infection.
- The highest Chlamydia rates in 2011 were seen in 15-19 year olds (3.4%) and 20-24 year olds (3.7%)
- Dual protection provided by condoms, STI's and pregnancy prevention.

Condom Use

- In 2017 YRBS, 40% of high school students reported ever having sexual intercourse.
  - 10% reported 4+ partners
- Less than 10% have been tested for HIV
- 46% sexually active students did not use a condom during their last encounter.
- The condom still remains the most popularly used contraception for adolescents.

Condoms



- Method failure for unintended pregnancy is 2% in 12 months of use (18 % with typical use).
- Latex and synthetic condoms can protect against passage of viruses including HIV, Hep B and HSV.
- Can also protect against STIs transmitted via skin-to-skin contact or mucosal contact (HSV, HPV, syphilis).

Factors that Influence Condom Use

- In a study of adolescent males, factors include African American race, positive condom attitudes, discussion of health topics with parents
- Higher rates of condom use noted in youth who perceived their partners as wanting to use condoms
- Others: receiving comprehensive sex and HIV education programs, attending schools where condoms are available, perceiving a risk of STIs.

Contraception

194,377

babies were born to adolescent girls (age 15-19) in 2017 in the U.S.

Methods of Contraception

Diaphragm, Cervical Cap, Sponge:

- NO STI protection
- Diaphragms must be used with spermicide and inserted prior to sex and kept in place for 6 hours afterward (6%)
- Cervical caps adhere to the cervix and provide up to 48 hours of protection (
- Require fitting by a professional

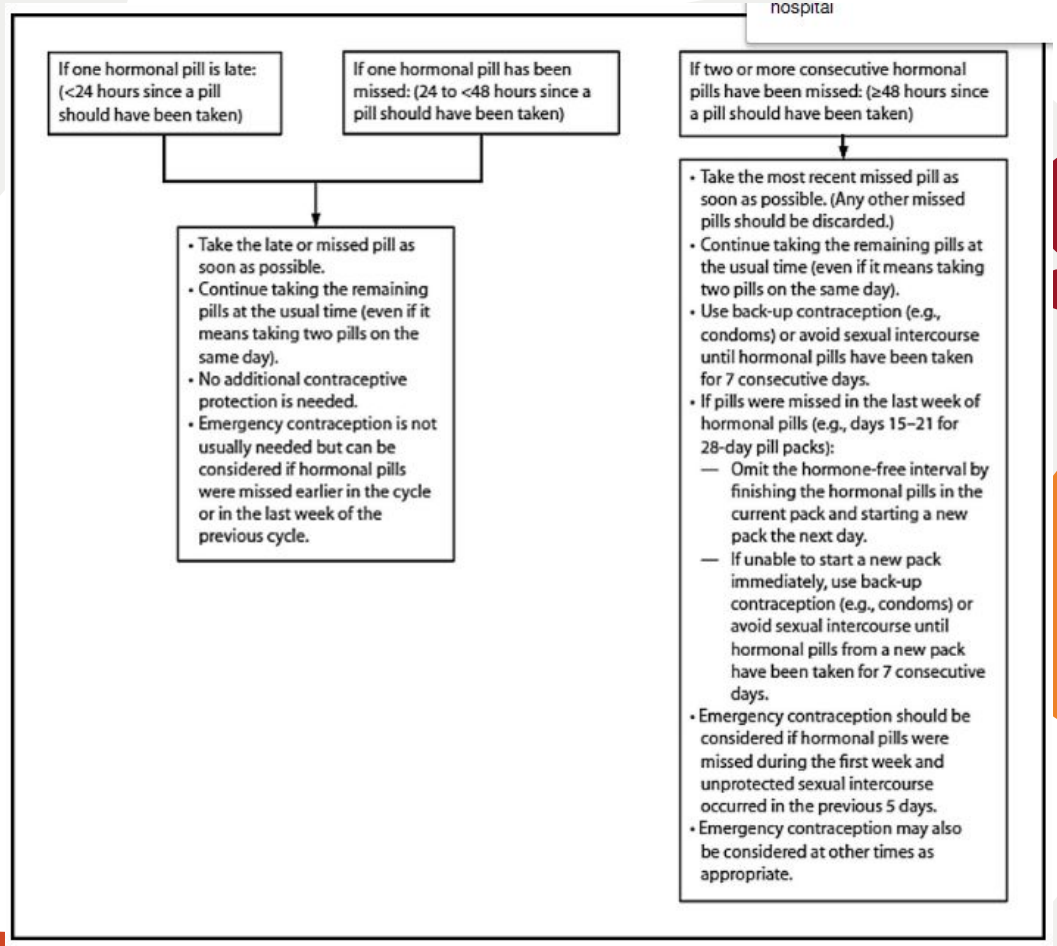
Contraceptive Method Efficacy

Method	% of Women Experiencing an Unintended Pregnancy Within the First Year of Use		% of Women Continuing Use at 1 Year[c]
	Typical Use[a]	Perfect Use[b]	
No method	85	85	—
Spermicides (foams, creams, gels, suppositories, and film,)	28	18	42
Fertility awareness-based methods	24	—	47
Withdrawal	22	4	46
Condom			
Female	21	5	41
Male	18	2	43
Diaphragm	12	6	57
Combined pill and progestin-only pill	9	0.3	67
Contraceptive patch	9	0.3	67
Contraceptive ring	9	0.3	67

DMPA injection	6	0.2	56
IUD			
Copper T	0.8	0.6	78
Levonorgestrel	0.2	0.2	80
Single-rod contraceptive implant	0.05	0.05	84
Female sterilization	0.5	0.5	100
Male sterilization	0.15	0.10	100

Combined OCPs

- Inhibits ovulation
- Ethinyl estradiol (10 to 50 ug)
- Can be started on the day of the visit
- Back-up method for 7 days
- Transient adverse effects: nausea, irregular bleeding, headaches
- Risks/contraindications: hypercoagulability
- Benefits: decrease menstrual cramping, blood loss (extended/continuous cycle), improvement in acne, completely reversable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If one hormonal pill is late: (<24 hours since a pill should have been taken)
If one hormonal pill has been missed: (24 to <48 hours since a pill should have been taken)
If two or more consecutive hormonal pills have been missed: (≥48 hours since a pill should have been taken)
• Take the late or missed pill as soon as possible.
• Continue taking the remaining pills at the usual time (even if it means taking two pills on the same day).
• No additional contraceptive protection is needed.
• Emergency contraception is not usually needed but can be considered if hormonal pills were missed earlier in the cycle or in the last week of the previous cycle.
• Take the most recent missed pill as soon as possible. (Any other missed pills should be discarded.)
• Continue taking the remaining pills at the usual time (even if it means taking two pills on the same day).
• Use back-up contraception (e.g., condoms) or avoid sexual intercourse until hormonal pills have been taken for 7 consecutive days.
• If pills were missed in the last week of hormonal pills (e.g., days 15–21 for 28-day pill packs):
— Omit the hormone-free interval by finishing the hormonal pills in the current pack and starting a new pack the next day.
— If unable to start a new pack immediately, use back-up contraception (e.g., condoms) or avoid sexual intercourse until hormonal pills from a new pack have been taken for 7 consecutive days.
• Emergency contraception should be considered if hormonal pills were missed during the first week and unprotected sexual intercourse occurred in the previous 5 days.
• Emergency contraception may also be considered at other times as appropriate.

Other combined hormonal methods

- Vaginal ring (NuvaRing): 15 ug e.e., 120ug etonogestrel
  - Effective for 1 month
  - Same-day start
- Transdermal patch: (Ortho Evra):
  - Lower continuation rates compared to other combined methods
  - Reasons: adverse effects (hyperpigmentation, dislodged patch, dermatitis)

LARC's

- Progestin implants (Nexplanon): etonogestrel
  - Insertion takes 1 minute
  - Remains for 3 years.
  - Most common reason for discontinuation: irregular bleeding
  - Rare adverse effects: emotional lability, weight gain, headache, acne

LARC's

- IUD's
  - Copper (Paragard): can remain for 10 years
  - Levonorgestrel (13.5mg *Skyla* for 3 years; 52mg *Mirena* for 5 years)
  - Safe for nulliparous adolescents
  - Can screen for GC/CT during insertion (if + can treat without removal unless not improving)
  - Benefits for levonorgestrel IUD: dysmenorrhea, heavy menses

LARC's

- Progestin injection (Depo-Provera)
  - Single injection every 13 weeks; ame-day initiation
  - Benefits: improvement in dysmenorrhea (similar to COCs)
  - Adverse: menstrual cycle irregularities (likely to improve with time), weight gain, interference with normal increase in bone density (suppress estradiol circulation) , headache, hair loss, long term use leads to delayed return to fertility (9-18 mos after last injection)

Progestin-only pill

- Thickens cervical mucus
- Timing: 4 or 22 hours before coitus
- Adverse effect: irregular bleeding
- Less effective than other progestin-only methods such as IUD, implant, injection

Emergency Contraception

- 14% of sexually active adolescents in 2008 survey reports ever having used EC
- How it works: inhibits ovulation, disrupts follicular development, interferes with corpus luteum maturation
- 4 forms in the US:
  - Progestin-only (levonorgestrel)
  - High dose combined OCP (Yuzpe method)
  - Progesterone receptor modulator (ulipristal acetate)
  - Copper IUD

Methods of EC

- Initiate up to 5 days after unprotected intercourse, but most effective sooner
- Advanced prescription for EC should be a part of routine adolescent care
- Plan B (progestin-only) is nonprescription, approved by FDA. Generic versions do not have age requirement for purchase.
- Ulipristral acetate is in pregnancy category X - need to rule out pregnancy

Yuzpe Method

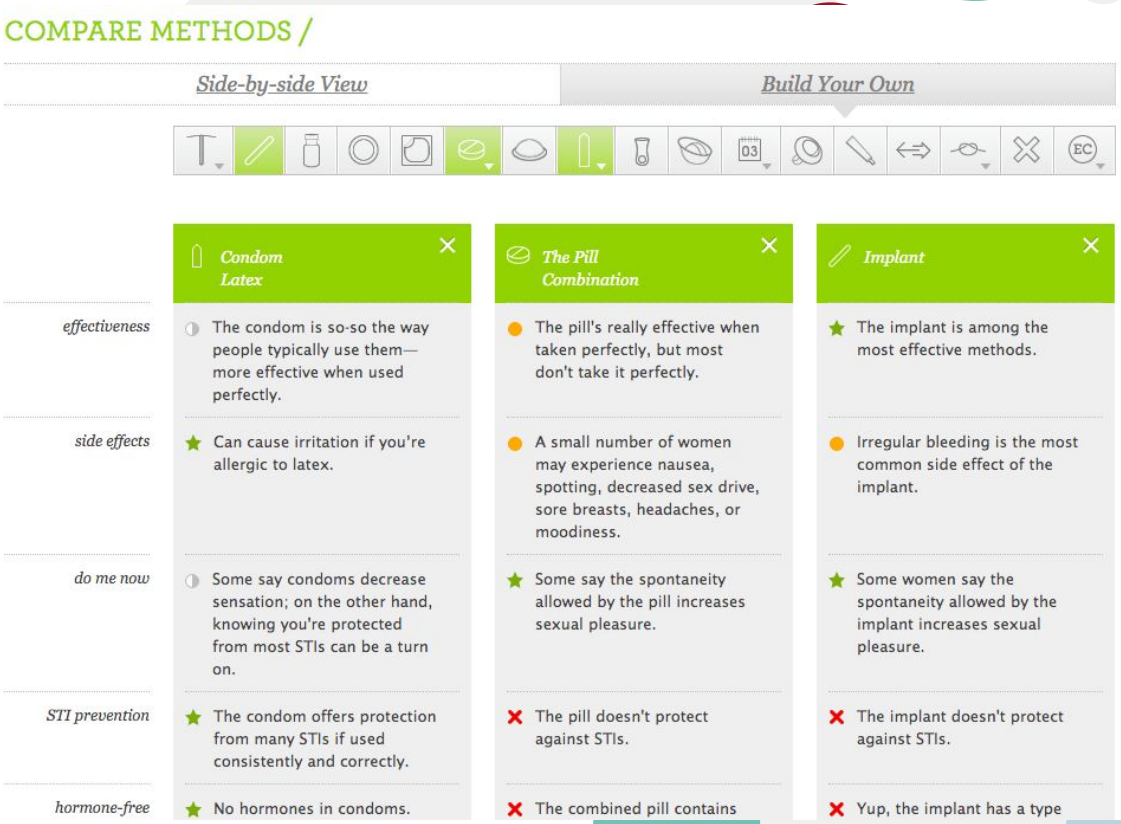
- 2 pills in a single dose:
  - Each with a *minimum* of 100 ug of ethinyl estradiol and *minimum* of 500ug of levonorgestrel
- Adverse effect: nausea, vomiting (levonorgestrel EC has half the rate of this adverse effect)
- Use an antiemetic 1 hour prior

Resource for Adolescents

Bedsider.org →

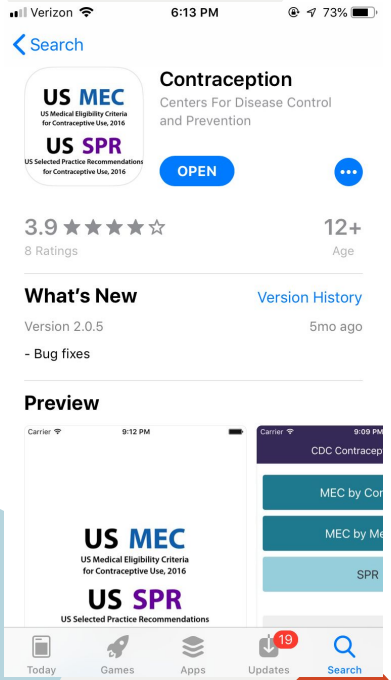
youngwomenshealth.org

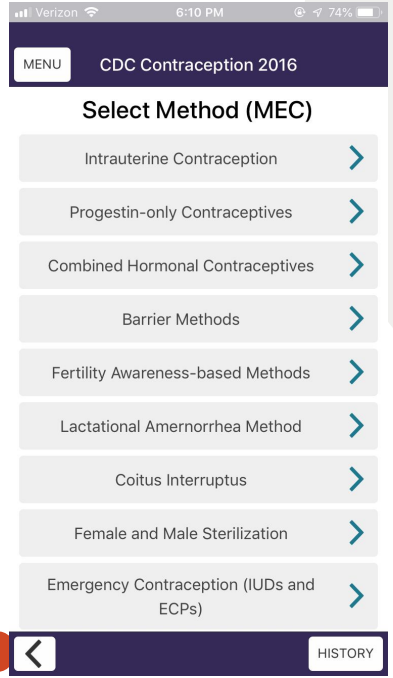
youngmenshealthsite.org

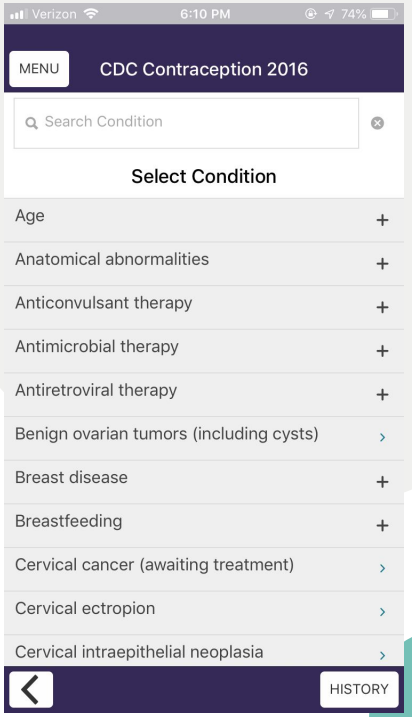


Resource for Providers

CDC Contraception App







Resources

1. Contraception for Adolescents. Mary A. Ott, Gina S. Sucato and Committee on Adolescence. *Pediatrics* October 2014, 134 (4) e1257-e1281; DOI: https://doi.org/10.1542/peds.2014-2300
2. Condom Use by Adolescents. Committee on Adolescence. *Pediatrics* November 2013, 132 (5) 973-981; DOI: https://doi.org/10.1542/peds.2013-2821
3. Emergency Contraception. Committee on Adolescence. *Pediatrics* December 2012, 130 (6) 1174-1182; DOI: https://doi.org/10.1542/peds.2012-2962
4. CDC Reproductive Health: Teen Pregnancy. Website: https://www.cdc.gov/teenpregnancy/about/index.htm. Accessed: March 25, 2020.
5. CDC. Youth Risk Behavior Surveillance—United States, 2017. *MMWR Surveill Summ* 2018;67(No. SS-8).

Thanks!

Any questions?

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