Maryland Assembly for School-Based Health Care Webinar

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Common Conundrums Clarified:

The management of common adolescent clinical challenges within SBHCs

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DISCLOSURES

- No relevant financial relationships to disclose
- Trainer for the Nexplanon® Clinical Training Program through Organon

Learning Objectives

- To describe the work-up and management of common (GYN/SRH) conditions in SBHCs
- To review:
  - Comprehensive birth control options
  - The updated 2024 CDC U.S. Medical Eligibility Criteria for Contraceptive Use
  - General STI screening guidelines
- To analyze audience-submitted clinical case conundrums related to GYN/SRH conditions encountered at SBHCs

Learning Objectives

- To describe the work-up and management of common (GYN/SRH) conditions in SBHCs

Common GYN/SRH encounters

- Menstrual concerns
  - Menstrual irregularities, PCOS, Painful periods
- SRH concerns
  - Female: breast health, vaginitis
  - Male: penile concerns, testicular pain
- Pregnancy testing/options counseling
- STI screening and treatment

PCOS

- PCOS is the most common endocrine disorder (8-13%) of reproductive age females
- Most common cause of excess androgen production
- It is a leading cause of infertility in women
- It is associated with:
  - Metabolic syndrome (cardiovascular disease, insulin resistance, sleep-disordered breathing and excessive daytime sleepiness)
  - Type 2 diabetes
  - Dysfunctional Uterine bleeding
  - Endometrial cancer
  - Psychosocial (depression, anxiety, cosmetic concerns)

PCOS

Clinical Case

- A 14 y/o student comes in for an annual visit but is also concerned that she may be depressed.
- She had menarche at age 12 and she has had menses every 2 months for the past 2 years, however, has missed 4 months of her cycle most recently.
- She has a BMI of 32 and in the past year has experience increased facial hair growth. She has never had acne.
- The student asks: "why do I have some much facial hair?"

PCOS Clinical Features

Clinical Feature	Prevalence
Menstrual irregularity (eg, oligo- or amenorrhea, or irregular bleeding)	75%
Hyperandrogenism (eg, hirsutism, severe acne, and/or pattern alopecia)	60–80%
Polycystic ovaries	75%
Obesity	35–80%

Family History

Hirsutism

Adrenal enzyme deficiencies

Menstrual disorders including PCOS

Diabetes

Infertility

Diagnostic Criteria

TABLE 1. Diagnostic criteria for PCOS in adolescents[3,4]

Criteria	Evaluation	Considerations
Irregular menses/ovulatory dysfunction	Comprehensive history and physical/menses tracking. Irregular menses are defined as: • From 1 to 3 years postmenarche: <21 or >45 days • From 3 years postmenarche: <21 days or >35 days, or <8 cycles per year • Menstrual cycle >90 days for any one cycle >1 year postmenarche • Primary amenorrhea by age 15 years or age 13 years with absence of menses and no secondary sexual characteristics such as breast development	Generally, patients with irregular menses must be 2 years postmenarche
Hyperandrogenism: clinical or biochemical	• Clinical hyperandrogenism • Progressive hirsutism • Complete physical examination; use validated visual scale to evaluate hirsutism • Moderate to severe acne; follow-up with evaluation for biochemical hyperandrogenism • Biochemical hyperandrogenism • Use of high-quality assays for total and free testosterone	Moderate to severe acne alone is not adequate to diagnose clinical hyperandrogenism, must use follow-up testing
Rule out other disorders of hyperandrogenism	Laboratory evaluation for pregnancy, thyroid disorders, nonclassic congenital adrenal hyperplasia, Cushing syndrome, androgen-secreting tumor	Ultrasound is not recommended to evaluate ovarian morphology*

*Ultrasound should not be used to evaluate for PCOS in patients <8 years postmenarche. Ultrasound should be reserved for evaluation of other conditions as needed, such as evaluation for structural abnormalities in primary amenorrhea.

Conlon, J. Leocadia PhD, MPH, PA-C; Malcolm, Sharyn MD, MPH, FAAP; Monaghan, Maureen PhD. Diagnosis and treatment of polycystic ovary syndrome in adolescents. JAAPA: October 2021 - Volume 34 - Issue 10 - p 15-22.

Ibáñez L, Oberfield SE, Witchel S, et al. An international consortium update: pathophysiology, diagnosis, and treatment of polycystic ovarian syndrome in adolescence. *Horm Res Paediatr*. 2017;88(6):371–395.

Teede, H. J., Tay, C. T., Laven, J. J. E., Dokras, A., Moran, L. J., Piltonen, T. T., Costello, M. F., Boivin, J., Redman, L. M., Boyle, J. A., Norman, R. J., Mousa, A., & Joham, A. E. (2023). Recommendations From the 2023 International Evidence-based Guideline for the Assessment and Management of Polycystic Ovary Syndrome. *The Journal of clinical endocrinology and metabolism*, *108*(10), 2447–2469. https://doi.org/10.1210/clinem/dgad463.

Treatment

TABLE 3. Recommendations and medication options for managing PCOS in adolescents[3,4]

Treatment or medication	Indication	Potential effect	Common adverse reactions, contraindications, special considerations
Lifestyle modifications: combine weight loss and physical exercise	• Excess weight or obesity • Physical exercise without recommendations for weight loss in normal-weight adolescents	Decreased androgen levels, normalized menstrual cycles, improved markers of cardiometabolic health	• Interdisciplinary care recommended when available. • Consider family preferences and cultural norms. • Family should be involved in lifestyle changes.
Metformin (850 mg/day up to 1 g twice a day)	Evidence of insulin resistance (regardless of BMI)	Improve insulin sensitivity, improve glycemic control, decrease BMI, decreased androgen levels, ovulation	• Common adverse reactions include GI discomfort. • Cannot be used in patients with renal or hepatic dysfunction.
Combined oral contraceptives	Menstrual irregularities	Increased production of hepatic SHBG results in less circulating androgens, normalized menstrual cycles	• Adverse reactions may include breast tenderness, headache, increased risk of VTE, increased insulin resistance. • Consider family preferences and cultural norms.
Cosmetic procedures such as photoepilation or topical eflornithine (13.9% twice a day)	Localized hirsutism	Long-term removal of unwanted hair growth	• Cost if not covered by insurance • Discomfort
Spironolactone (50-200 mg/day)	Features of hyperandrogenism that do not resolve after 6 months of combined oral contraceptives or cosmetic procedures	Reduced excess androgens	• Adverse reactions may include irregular menses, headache, hypotension, nausea, feminization of male fetus. • Contraindicated in patients with renal failure. • Monitor for hyperkalemia. • Prescribe with contraception due to fetal effects.
Flutamide (62.5 mg/day to 250 mg/day)	Hyperandrogenism that do not resolve after 6 months of combined oral contraceptives or cosmetic procedures	Reduced excess androgens	• Dose-dependent hepatotoxicity at doses greater than 1 mg/kg/day. • Prescribe with contraception due to fetal effects of feminization of male fetus.

Case Management

Abnormality	In PCOS	Metformin	Spironolactone (Anti-androgen)	Oral Contraceptives
Androgens	↑	↓	↓	↓
Insulin resistance	↑	↓	← no effect →	↔/ ↓
SHBG	↓	↑	↔	↑
Triglycerides	↑	↓	↔	↔/ ↑
HDL	↓	↑	↔	↔/ ↑
LH	↑	Normalize	↓	↓
Ovulation	↓	↑	↔	↓ or ↑
Irregular periods	↑	↓	↔or ↑	↓
Hirsutism	↑	↓	↓	↔ /sl ↓
Acne	↑	↓	↓	↔/ ↓
Obesity	↑	↓	↔	↔/ ↓
Insulin level	↑	↓	↑	↑

~~DUB~~/AUB/HMB….what is to Be?

- Abnormal uterine bleeding (AUB) may affect over 50% of reproductive-aged women and girls, may be acute or chronic, and is defined as bleeding from the uterus that is abnormal in:
- regularity
- volume
- frequency
- duration
- occurs in the absence of pregnancy

Jain, Varsha , Munro, Malcolm, Critchley, Hilary. 2023. Contemporary evaluation of women and girls with abnormal uterine bleeding: FIGO Systems 1 and 2. Int J Gynaecol Obstet. Aug;162 Suppl 2(Suppl 2):29-42. doi: 10.1002/ijgo.14946.

Management of acute abnormal uterine bleeding in nonpregnant reproductive-aged women. Committee Opinion No. 557. American College of Obstetricians and Gynecologists. Obstet Gynecol 2013; 121:891–6. Number 557 (Reaffirmed 2024)

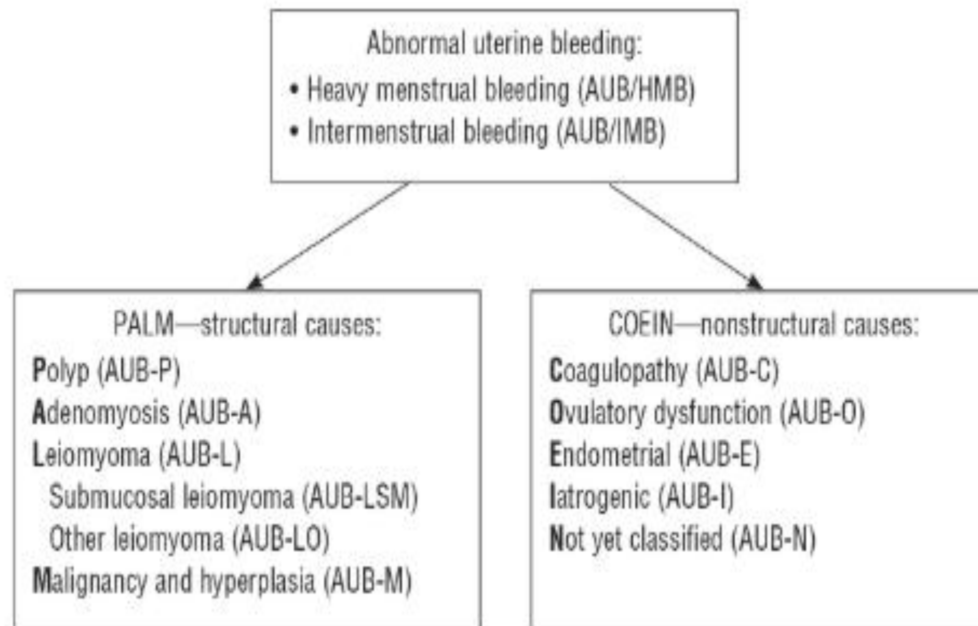


Fig. 1. Basic PALM–COEIN classification system for the causes of abnormal uterine bleeding in nonpregnant reproductive-aged women. This system, approved by the International Federation of Gynecology and Obstetrics, uses the term "abnormal uterine bleeding" paired with terms that describe associated bleeding patterns ("heavy menstrual bleeding" or "intermenstrual bleeding"), a qualifying letter (or letters) to indicate its etiology (or etiologies), or both. Abbreviation: AUB indicates abnormal uterine bleeding. (Data from Munro MG, Critchley HO, Broder MS, Fraser IS. FIGO classification system [PALM-COEIN] for causes of abnormal uterine bleeding in nongravid women of reproductive age. FIGO Working Group on Menstrual Disorders. Int J Gynaecol Obstet 2011;113:3–13. [PubMed] [Full Text]) ⇦

Management of acute abnormal uterine bleeding in nonpregnant reproductive-aged women. Committee Opinion No. 557. American College of Obstetricians and Gynecologists. Obstet Gynecol 2013; 121:891–6. Number 557 (Reaffirmed 2024)

AUB/HMB Screening Tool Philipp's

Box 1. Screening Tool to Identify Adolescents With Heavy Menstrual Bleeding for Testing and Evaluation for Underlying Bleeding*

1. How many days did your period usually last, from the time bleeding began until it completely stopped?
   i. Less than 7 days
   ii. Greater than or equal to 7 days
   iii. Don't know
2. How often did you experience a sensation of "flooding" or "gushing" during your period?
   i. Never, rarely, or some periods
   ii. Every or most periods
   iii. Don't know
3. During your period did you ever have bleeding where you would bleed through a tampon or napkin in 2 hours or less?
   i. Never, rarely, or some periods
   ii. Every or most periods
   iii. Don't know
4. Have you ever been treated for anemia?
   i. No
   ii. Yes
   iii. Don't know
5. Has anyone in your family ever been diagnosed with a bleeding disorder?
   i. No
   ii. Yes
   iii. Don't know
6. Have you ever had a tooth extracted or had dental surgery?
   i. No (If no, go to question 7)
   ii. Yes
   iii. Don't know

   6a. Did you have a problem with bleeding after tooth extraction or dental surgery?
   i. No
   ii. Yes
   iii. Don't know
7. Have you ever had surgery other than dental surgery?
   i. No (If no, go to question 8)
   ii. Yes
   iii. Don't know

   7a. Did you have bleeding problems after surgery?
   i. No
   ii. Yes
   iii. Don't know

(continued)

Box 1. Screening Tool to Identify Adolescents With Heavy Menstrual Bleeding for Testing and Evaluation for Underlying Bleeding* *(continued)*

8. Have you ever been pregnant?
   i. No
   ii. Yes
   iii. Don't know

   8a. Have you ever had a bleeding problem following delivery or after a miscarriage?
   i. No
   ii. Yes
   iii. Don't know

How to Use the Screening Tool

The screening tool is considered to be positive if 1 of the following 4 criteria were met:

1. The duration of menses was greater than or equal to 7 days and the woman reported either "flooding" or bleeding through a tampon or napkin in 2 hours or less with most periods;
2. A history of treatment of anemia;
3. A family history of a diagnosed bleeding disorder; or
4. A history of excessive bleeding with tooth extraction, delivery or miscarriage, or surgery

Adapted from Philipp CS, Faiz A, Dowling NF, Beckman M, Owens S, Ayers C, et al. Development of a screening tool for identifying women with menorrhagia for hemostatic evaluation. Am J Obstet Gynecol 2008;198:163.e1–8; Philipp CS, Faiz A, Heit JA, Kouides PA, Lukes A, Stein SF, et al. Evaluation of a screening tool for bleeding disorders in a US multisite cohort of women with menorrhagia. Am J Obstet Gynecol 2011;204:209.e1–7.

Philipp CS, Faiz A, Dowling NF, et al. Development of a screening tool for identifying women with menorrhagia for hemostatic eval uation. Am J Obstet Gynecol 2008;198:163.e1-163.e8.

Heavy Menstrual Bleeding

How much bleeding occurs in a normal menses?

- Average is 30 – 40 ml; Range 25-70ml
  - 10 -15 soaked pads or tampons per cycle

What is the best way to assess amount of bleeding?

- Hemoglobin; pad counts can be unreliable

How much blood loss causes iron deficiency anemia?

- Greater than 80 ml of bleeding

Heavy Menstrual Bleeding

The Rule of Seven's (7)

- Periods lasting longer than 7 days
- Bleeding heavier than one pad/tampon every 2 hours (soaking it fully)
- Using more than 7 pads/tampons per day
- Blood clots greater than 1 inch
- Good uses of measure: coin and fruit size (quarter sized; lemon sized; etc)

If YES to anything above…patients should seek medical attention!

Menstrual Disorders History and Physical

History

- Detailed past menstrual history
- Systemic diseases
- CNS (headache, neuro sx.)
- Breast & pubic hair development
- Family Hx of menarche and HMB
- Emotional status
- Nutritional status- excessive weight gain or loss
- Sexual & contraceptive history, sx's of pregnancy
- Medications, drugs, exercise
- Hx of androgen excess
- Hx of nose bleeds
- Prolonged bleeding after dental work (cleaning or extractions)
- Family History of known bleeding disorder (vWD, hemophilia, other)

Physical

- General Appearance
- Weight, Height & BMI
- Orthostatic measurements
- Thyroid enlargement
- Galactorrhea
- Ecchymosis, purpura
- Signs of Androgen Excess (hirsutism)
- Abdominal masses (pregnancy, tumors)
- Tanner Staging (clitoral enlargement)
- Signs of Gonadal Dysgenesis
- Pelvic examination/Pelvic Ultrasound (imperforate hymen, blind vaginal pouch, absent uterus)

Laboratory Evaluation

- **Laboratory Evaluation**
  - Urine Pregnancy Test
  - CBC with differential
- ** If >2 yrs post menarche and evaluating PCOS (add)*
- FSH/LH (hypothalamus/pituitary function)*
- DHEA-S, free & total testosterone, 17-OH progesterone (hyperandrogenism)*

- **Lab tests based on history and physical exam**
- PT/INR, aPTT (coagulopathies)
- Testing for Von Willebrand Disease (coagulopathies)
  - Ristocetin Cofactor activity vWF activity (vWF:Rco)
  - vWF antigen level (vWF: Ag)
  - Factor VIII activity level
- Iron studies (chronic losses)
- TSH, Prolactin (endocrinopathies)
- STI screening: Gonorrhea/Chlamydia/Trichomonas/RPR/HIV (as indicated)

Medical management depends on severity of Heavy Menstrual Bleeding and resultant Anemia

Hemoglobin levels

- **Normal 12-15 gm/dL (female)**
- **Mild**
  - Hgb 10-12 gm/dL
- **Moderate**
  - Hgb 8-10 gm/dL
- **Severe**
  - Hgb < 8 gm/dL

- **Indications for hospitalization:**
  - **Symptomatic anemia** (fatigue, lethargy, syncope)
  - **Hemodynamic instability** (tachycardia, hypotension, orthostatic vital signs)
  - **Actively bleeding or not**
  - **CBC is critical**

Medical Management: Mild Heavy Menstrual Bleeding or Anemia

- Observation and reassurance
- Menstrual calendar/apps to track bleeding
- Anti-prostaglandins
    - Decrease flow
        - Ibuprofen 600 mg every 6hrs – 800 mg every 8 hrs for 5-7 days
        - Naproxen 500 mg every 12 hrs for 5-7 days
- Consider OCPs or other hormonal methods (as long as no contraindication)
- Always ask if sexually active (and order appropriate screening labs)
- Iron supplementation 325mg (65 mg elemental iron) daily or every other day

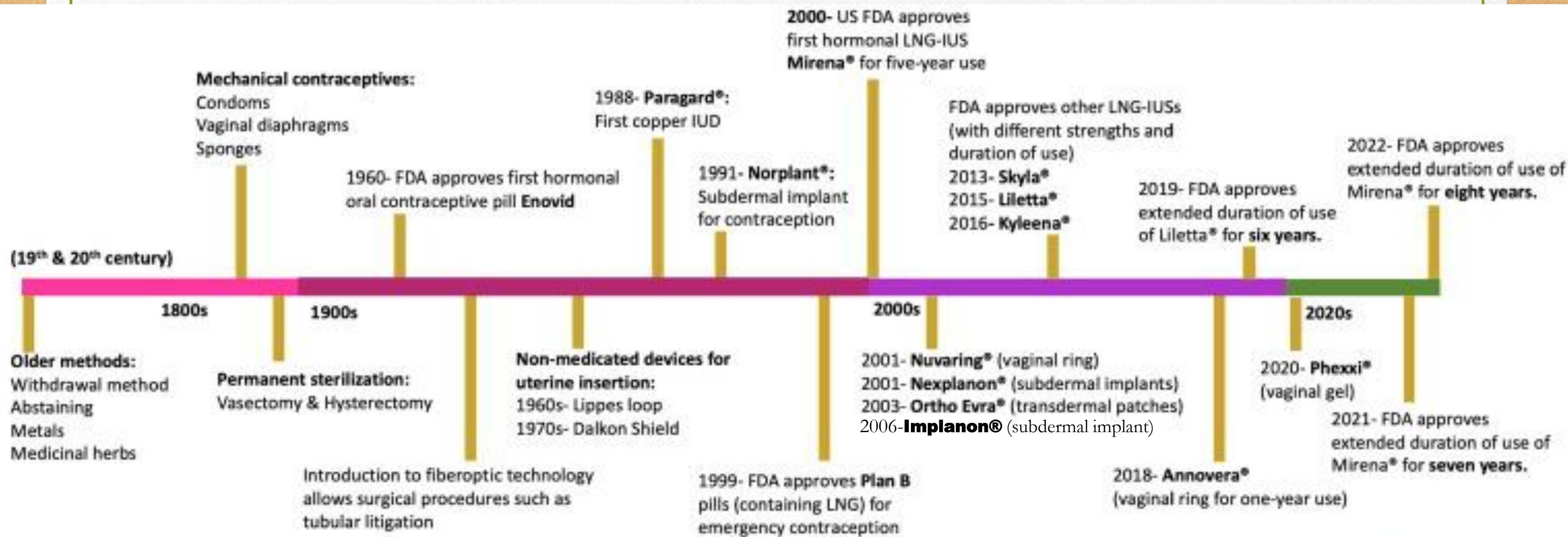
Male Reproductive Health Concerns

- **Penile discharge**
  - Thorough history and physical and STI screening with empiric therapy as necessary
- **Testicular pain**
  - Most common in boys aged 12 to 18
  - Sudden, severe pain on one side of the scrotum
  - If concerns on history and physical exam refer to ER for ultrasound and surgery within 6 hours to preserve testicle/fertility
- **Gynecomastia**
  - Thorough history and physical
  - Thorough substance use history
  - Most require reassurance and lifestyle changes

Learning Objectives

- To review:
  - Comprehensive birth control options
  - The updated 2024 CDC U.S. Medical Eligibility Criteria for Contraceptive Use
  - General STI screening guidelines

Timeline of Birth Control



Contraceptive Use in Adolescents

Non-Contraceptive uses:

- Patients with complex medication regimens or medical problems
  - Developmental delay, seizure disorders, uncontrolled hypertension, lupus, migraines, HIV and others

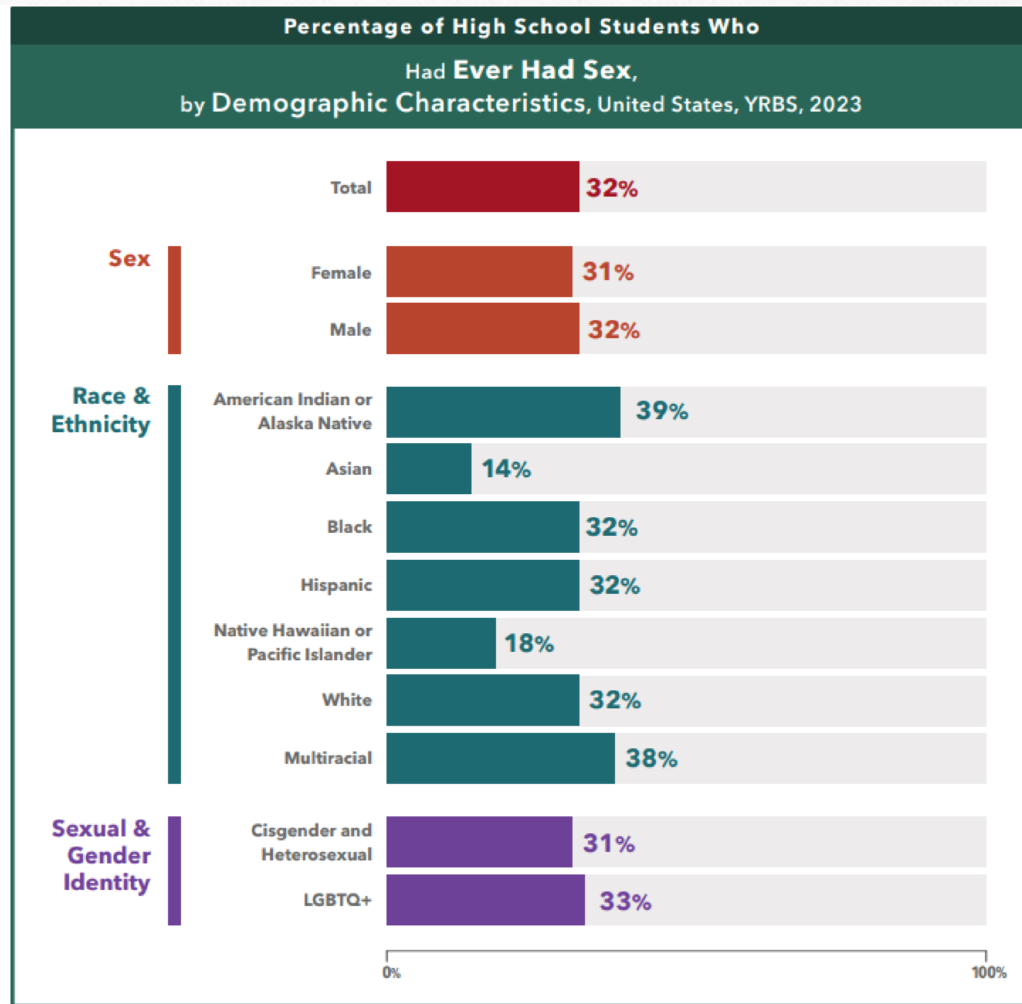
Benefits beyond contraception:

- Menstrual suppression
- Dysmenorrhea and menorrhagia control
- PCOS treatment
- Endometriosis treatment

Contraceptives in Adolescents

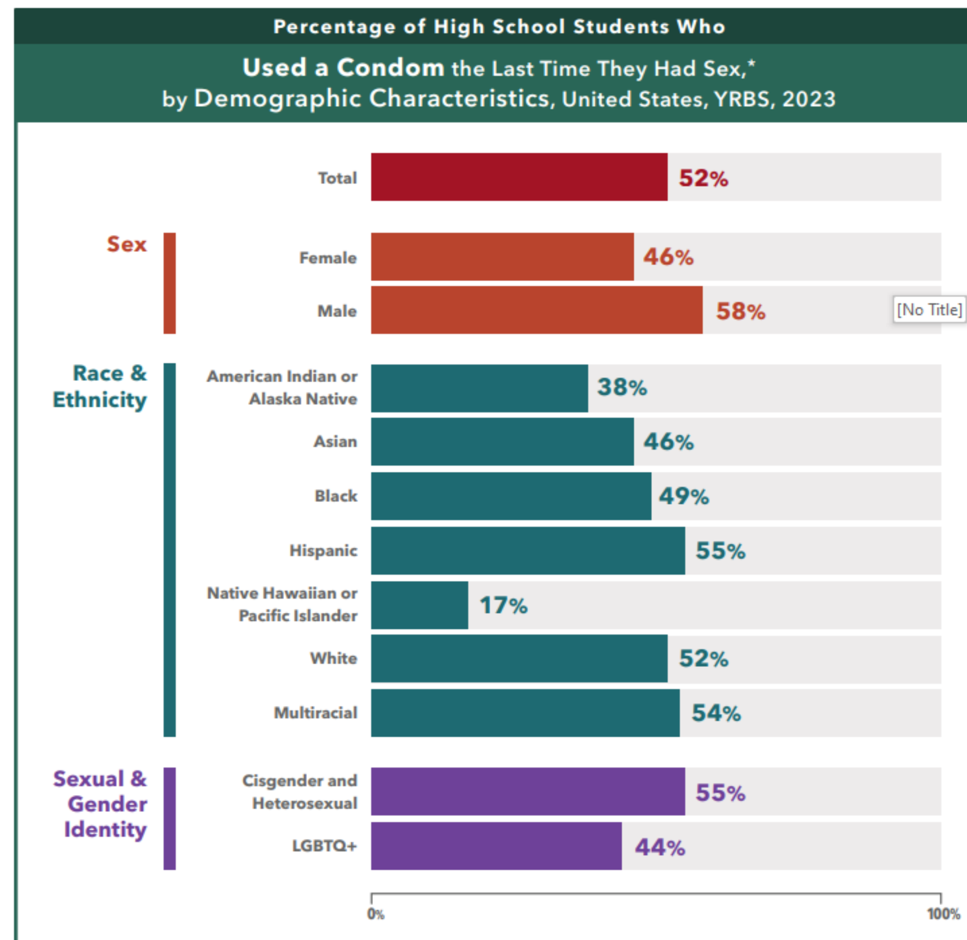
- Adolescence is a common time for sexual debut
- 750,000 teens become pregnant each year (82% unintended)
- Comprehensive, shared-decision counseling within reproductive justice frameworks are necessary in all conversations about birth control

Percentage of High School Students Who Ever Had Sex



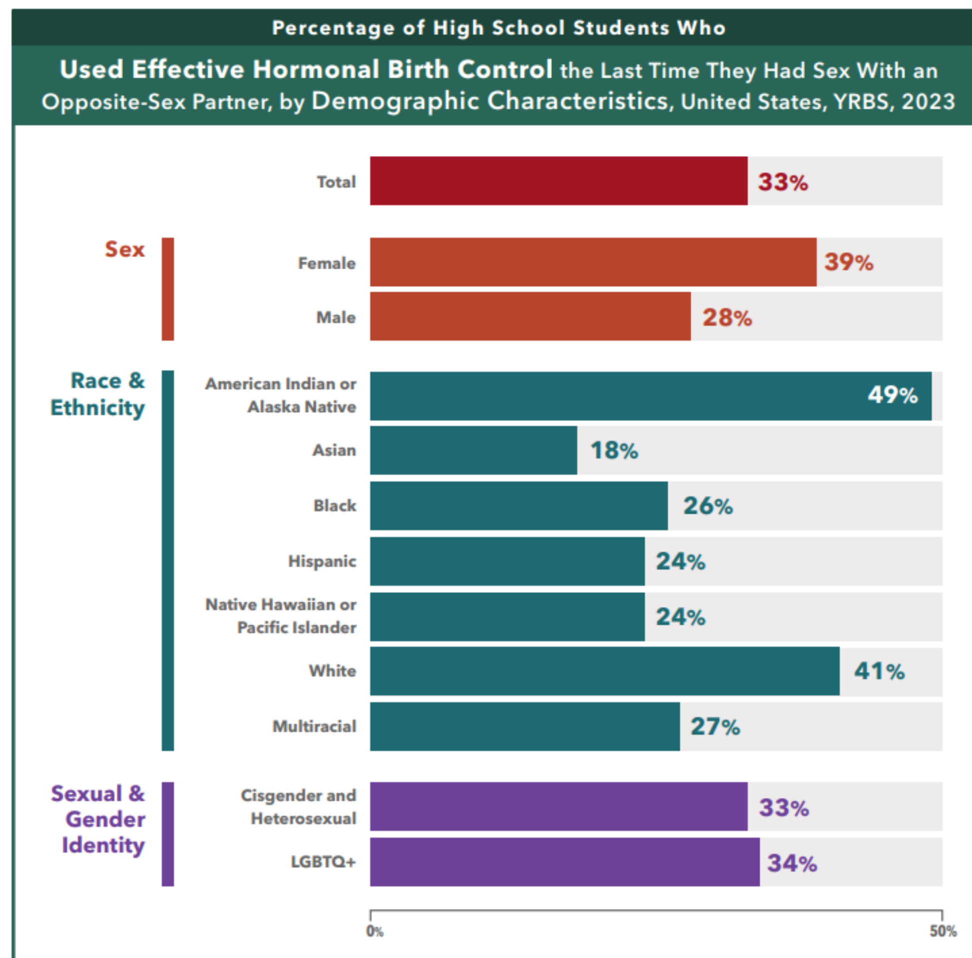
National Youth Risk Behavior Survey, 2023

Condom use During Last Sexual Intercourse



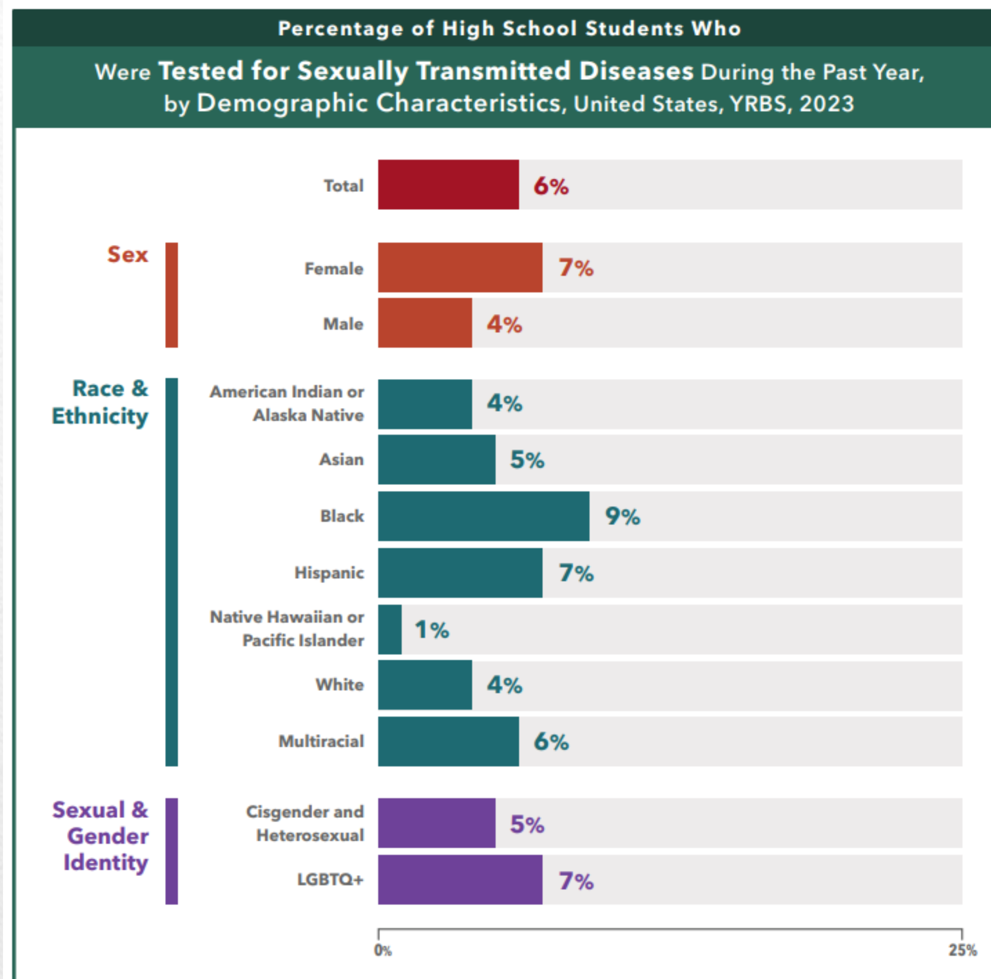
National Youth Risk Behavior Survey, 2023

Percentage of High School Students Who Used Effective Birth Control



National Youth Risk Behavior Survey, 2023

STI screening in Adolescents



Routine STI and Triple site screening: (oropharyngeal, vaginal, anal) testing as indicated by history:

- GC/CT/ Trichomonas urine/vaginal swab/op/anal
- RPR, HIV from serum

National Youth Risk Behavior Survey, 2023

Contraception in Adolescents

American Academy of Pediatrics

American Congress of Obstetricians and Gynecologists

- Based on the safety and effectiveness of LARC methods, ACOG and the AAP endorse the use of IUDs and implants as contraceptive options for adolescents.
- A reproductive justice framework for contraceptive counseling and access is essential to providing equitable health care, accessing and having coverage for contraceptive methods, and resisting potential coercion by health care providers.
- Supports access for adolescents and young adults to all contraceptive methods approved by the U.S. Food and Drug Administration (FDA).

Contraception in Adolescents: Reproductive Autonomy

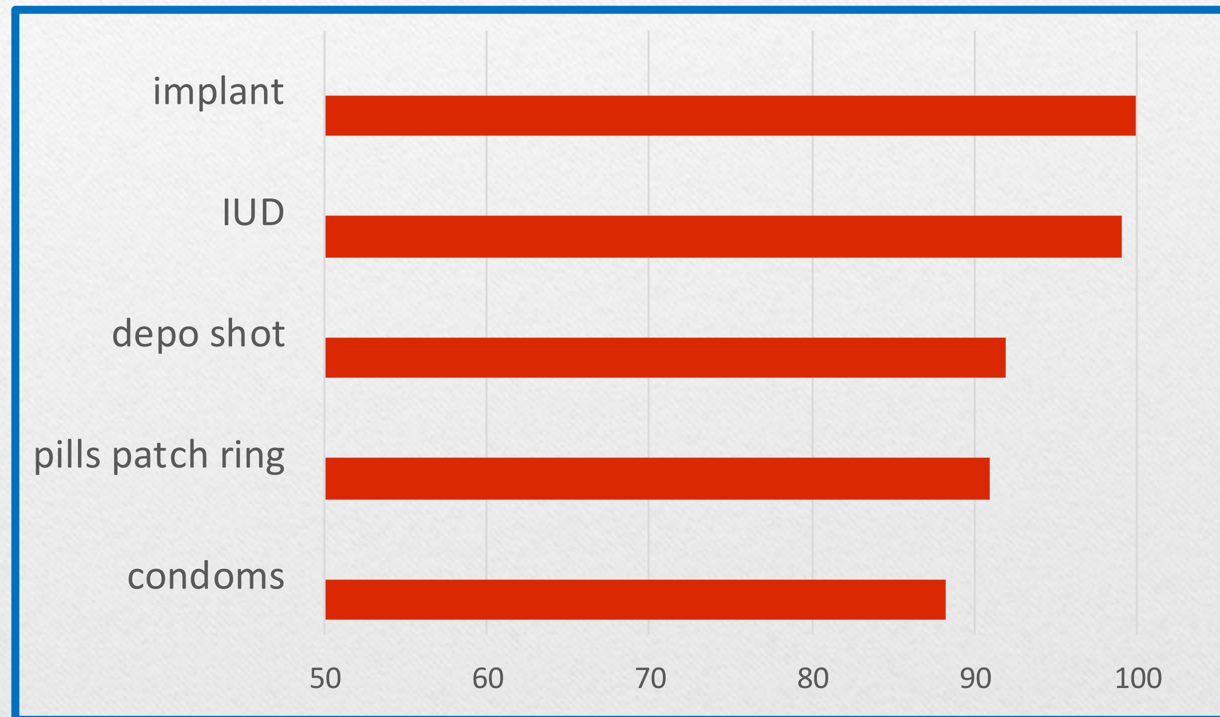
The power to decide and control birth control use, pregnancy, and childbearing

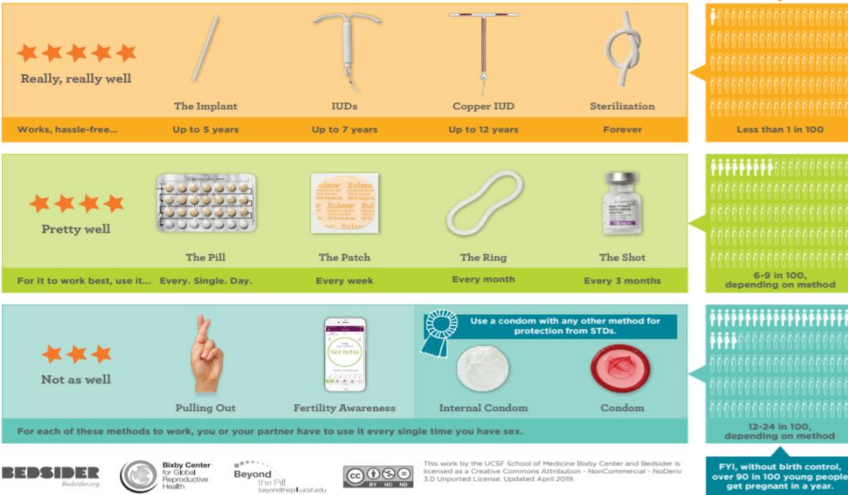
The best method is what works best for the patient

Shared Decision Making: *Elicit patient needs, concerns, and preferences*

- **Adherence issues**
  - Effort: years vs. every 3 months, monthly, weekly, daily
  - Needle/procedure required: fears, access
  - Discreetness: obtaining, storage, use
  - Control in starting/stopping
- **Side effects**
  - Weight changes
  - Changes to menstrual flow:
  - Predictable vs. unpredictable
  - Potential to induce amenorrhea or keep periods
- **Timing desired for return of fertility**
  - Ovulatory suppression
  - Non-contraceptive benefits
  - How it will feel for them or partner(s)
- **Effectiveness**

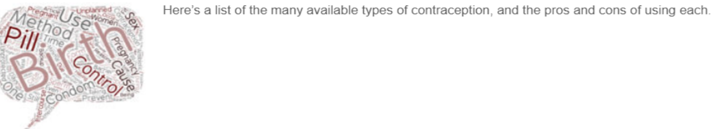
Contraceptive method effectiveness: typical use





Contraception: Pros and Cons of Different Contraceptive Methods

Posted under Health Guides. Updated 7 February 2020.



Here's a list of the many available types of contraception, and the pros and cons of using each.

Hormonal Implants	
Success Rate with Typical Use: 99%	
Pros	**Cons**
• Long-term method of birth control (protects against pregnancy for 3 years after insertion–it can be removed by a health care provider when you want to or you can wait for 3 years when it's time for a change of implant) • Very effective against pregnancy • May cause light or no menstrual periods	• Doesn't protect against STIs • Requires minor surgery and insertion of the tiny rod(s) underneath the skin • Requires minor surgery to remove device • Can cause side effects such as irregular menstrual periods, depression, nervousness, hair loss, and weight gain • Could get infection at area where rod is implanted

Intra-Uterine Device: Two types- LNG-IUS (Levonorgestrel hormone-releasing intrauterine system) and Copper IUD (no hormones)

Method	How to Use	Impact on Bleeding	Things to Know	How well does it work?*
The Patch Ortho Evra®	• Apply a new patch once a week for three weeks • No patch in week 4	• Can make monthly bleeding more regular and less painful • May cause spotting the first few months	• You can become pregnant right after stopping patch • Can irritate skin under the patch • This method contains estrogen - it is unclear if estrogen interacts with testosterone	93%
The Pill	• Take the pill daily	• Often causes spotting, which may last for many months	• Can improve PMS symptoms • Can improve acne • Helps prevent cancer of the ovaries • This method contains estrogen - it is unclear if estrogen interacts with testosterone • You can become pregnant right after stopping the pills • May cause nausea, weight gain, headaches, change in sex drive - some of these can be relieved by changing to a new brand	93%
Progestin-Only Pills	• Take the pill daily	• Can make monthly bleeding more regular and less painful • May cause spotting the first few months	• You can become pregnant right after stopping the pills • It may lower the risk of uterine lining cancer, ovarian cancer, and polycystic ovary syndrome (PCOS) • May cause depression, hair or skin changes, change in sex drive	93%
Copper IUD ParaGard®	• Must be placed in uterus by a clinican • Usually removed by a clinician	• May cause cramps and heavy monthly bleeding • May cause spotting between monthly bleeding (if you take testosterone, this may not be an issue)	• May be left in place for up to 12 years • You can become pregnant right after removal • It may lower the risk of uterine lining cancer, ovarian cancer, and polycystic ovary syndrome (PCOS) • Rarely, uterus is injured during placement	> 99%
Progestin IUD Liletta®, Mirena®, Skyla® and others	• Must be placed in uterus by a clinican • Usually removed by a clinician	• May improve cramps • May cause lighter monthly bleeding, spotting, or no monthly bleeding at all	• May be left in place 3 to 7 years, depending on which IUD you choose • You can become pregnant right after removal • It may lower the risk of uterine lining cancer, ovarian cancer, and polycystic ovary syndrome (PCOS) • Rarely, uterus is injured during placement	> 99%

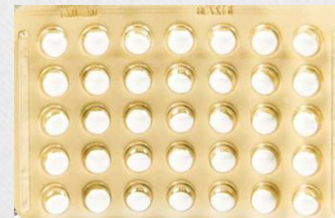
*Typical Use

Reproductive Health Access Project / October 2021 www.reproductiveaccess.org

Hormonal methods: Pills

Combined Oral Contraceptive Pills

- Pills taken once daily
- Progesterone + ethinyl estradiol
- Monophasic
- Aim for average 30 mcg estradiol component



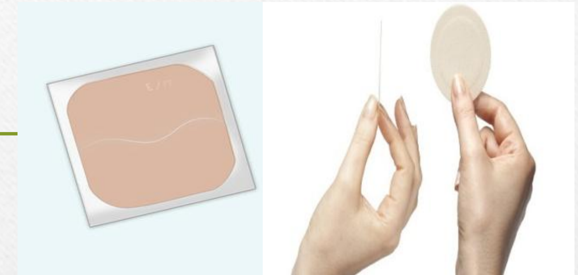
Progesterone Only Pills

- Time-sensitive for some methods
- Norethindrone 0.35 mg: Camila, Ortho Micronor,
- Drosperinone 4 mg: Slynd

OTC Hormonal methods: Pills

- The first FDA-approved over-the-counter (OTC) contraceptive pill in the United States
- Active Ingredient: Norgestrel, a type of progestin
  - inhibits ovulation
  - thickens cervical mucus
  - alters the uterine lining
- Effectiveness at preventing pregnancy:
  - Perfect use: up to 98%
  - Typical use: around 91%
- Cost: suggested retail price is $19.99 per pack

Hormonal methods: Hormonal Patch



Transdermal Hormonal Patch

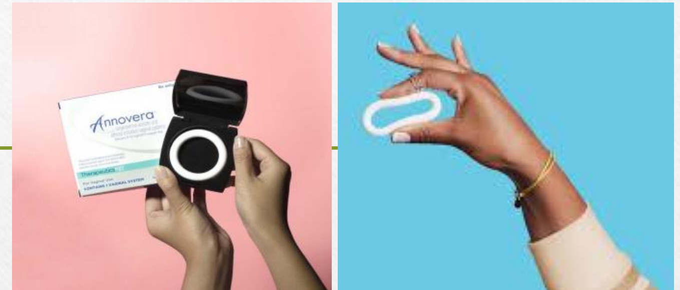
- Changed once a week for 3 weeks
- Norelgestromin/ethinyl estradiol 150mcg/35mcg)/24 hr
- OrthoEvra-> Xulane (generic) (plastic membrane)
- Twirla (cloth-like membrane)
- 90kg weight limit for effective contraception

Hormonal methods: Vaginal Ring

Nuva-Ring

- Changed once a month
- Etonogestrel/ethinyl estradiol vaginal ring
- Delivers 0.120 mg/day of etonogestrel and 0.015 mg/day of ethinyl estradiol over a three-week period of use

Hormonal methods: Vaginal Ring



Annovera

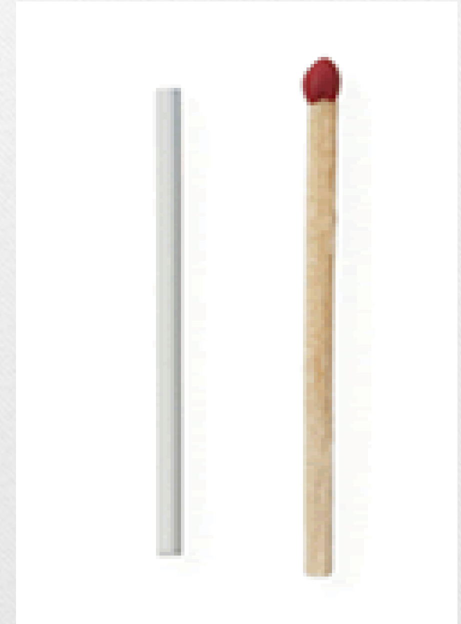
- Changed once a month
- Reusable vaginal ring for up to 1 year
- Segesterone acetate/ethinyl estradiol vaginal ring:103 mg segesterone acetate (SA) and 17.4 mg ethinyl estradiol (EE)
- Releases on average 0.15 mg/day of segesterone acetate and 0.013 mg/day of ethinyl estradiol

Hormonal methods: Depo-Provera

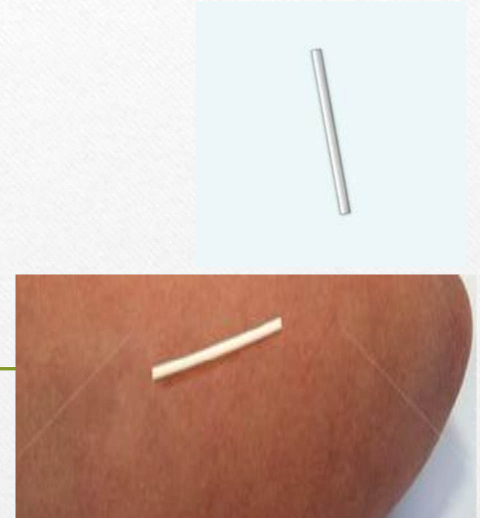
Depo-provera

- Progesterone only
- Every 3-month injection
- Medroxyprogesterone acetate
- 150 mg intramuscularly
- 104 mg subcutaneously

Long-Acting Reversible Contraception (LARC)



Nexplanon®



Progesterone only method

- Effective for up to 3*-5 years
- Hormonal implant
- Placed subcutaneously in the arm slowly releases hormone systemically over time
- Etonogestrel 68 mg (progesterone only)
- Inhibits ovulation
- Thins endometrium
- Thickens cervical mucus

*FDA approval

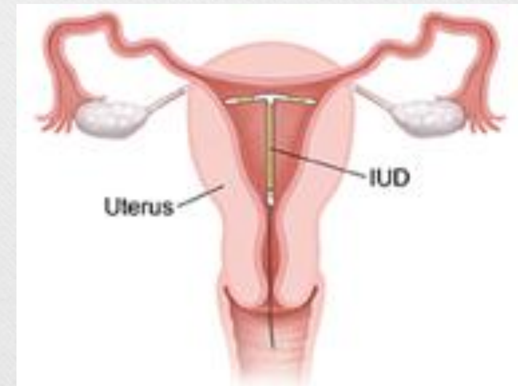
Intrauterine contraception

Intrauterine devices/contraceptives/systems (IUD, IUC, IUS)

- Paragard® Copper IUD—up to 10*-12 years

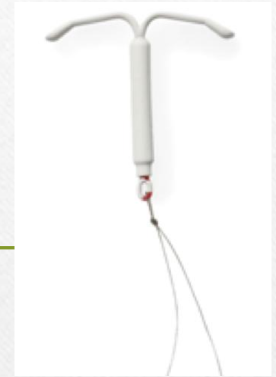
Levonogestrel containing

- Mirena® 52 mg– up to 5-8* years
- Kyleena® 19.5 mg– up to 5* years
- Skyla® 13.5 mg– up to 3* years
- Liletta® 52 mg– up to 8* years



*FDA approval

Intrauterine System (IUS)



Progesterone only method

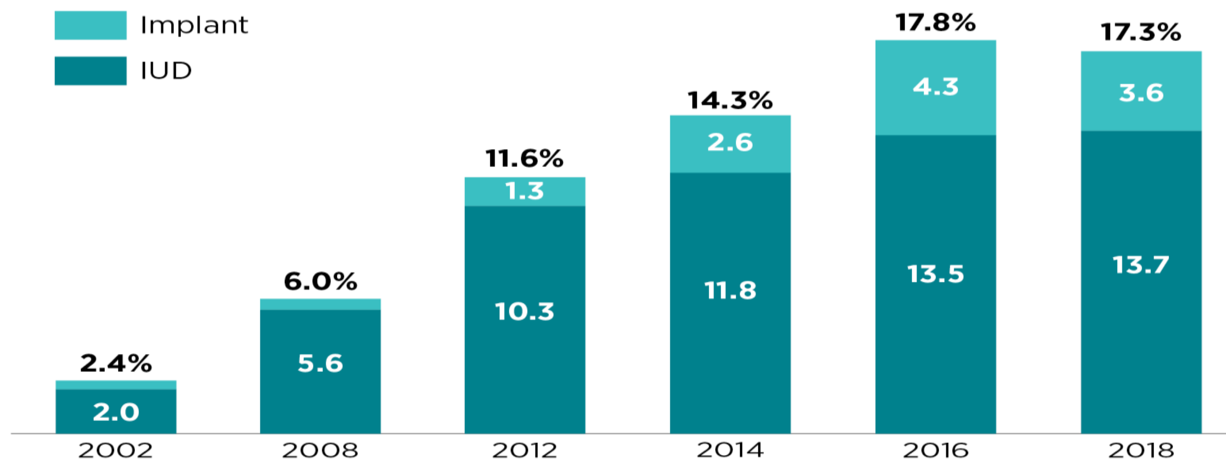
- Mainly local effect
- Thickens the cervical mucus and thins the uterine lining
- Inhibits ovulation
- 52 mg Levonorgestrel IUS: Only FDA approved for treatment of menorrhagia
- No age restriction for IUD

Copper IUD (Paragard®)

- Utilizes contraceptive properties of copper
- Local effect only; no impact on hormone cycling
- Can cause heavier and more painful periods
- Effective for up to 10*-12 years

*FDA approval

LARC usage rates have been increasing



Managing common side effects from LARCs

Bleeding pattern issues

- If no contraindications a monophasic Combined Hormonal Contraceptive (CHC) pill
- Cryselle-28: Ethinyl estradiol 0.03 mg and norgestrel 0.3 mg
- Short term NSAIDs (5-7 days) or CHCs plus time
    - Ibuprofen, Advil, or Motrin: take 600 mg every 6 hours, or 800 mg every 8 hours
    - Naprosyn, Naproxen, or Aleve 500 mg every 12 hours
    - Tylenol or Acetaminophen 500-650 mg every 4 hours (if NSAIDs contraindicated)

Managing common side effects from LARCs

Pain issues

- NSAIDs plus time for both LARCs
- Muscle Relaxants prn
- Nexplanon: Check site of placement, ensure no infection
- IUDS: Check placement, pelvic exam bimanual and/or speculum or Ultrasound

IUD string issues

- Leave long (3-4 cm, can always shorten), cut at right angle, tuck behind cervix (for IUD trained providers)

Non-hormonal methods: Vaginal pH modulator

- Inserted up to 60 minutes before intercourse and needs to be reapplied for each instance of intercourse within an hour
- Active ingredient: 5 grams of gel containing lactic acid (1.8%), citric acid (1%), and potassium bitartrate (0.4%)
- Acidic environment makes it difficult for sperm to move and survive
- 86% effective with typical use
- Contraindicated in pts. with history of recurrent UTIs

Non-hormonal methods: Diaphragm

- Bowl-shaped barrier over cervix to block sperm
- Needs to be removed within 24 hrs
- Requires prescription and fitting by provider
- 84-94% effective when used with spermicide as directed

Non-hormonal methods: Cervical cap

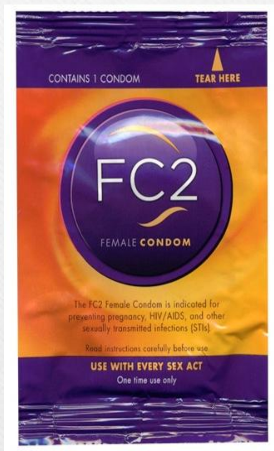
- Sailor's hat-shaped barrier over cervix to block sperm
- Can be in place for up to 48 hrs
- Requires prescription and fitting by provider
- Typically used with Spermicides
  - 86% effective for patients who have never given birth or given birth vaginally
  - 71% effective for patients who have given birth vaginally

Non-hormonal methods: Male Condoms

- Latex and non-latex options
- The typical use: failure rate of 14-15%
- Spermicidal agents increase the effectiveness to over 95% when used correctly and consistently
- Breakage: In various studies, between 0.8 percent and 40.7 percent

Non-hormonal methods: Internal Condoms

- Latex free Internal condoms for vaginal and anal sex



Non-hormonal methods: Spermicides

- Active ingredient: Nonoxynol-9
- Available over-the-counter as: gels, creams, foams, and films
- Often used in conjunction with other barrier methods like condoms, diaphragms and cervical caps
- Toxic to sperm and acts as a physical barrier to the cervix

Non-hormonal methods

- **Coitus Interruptus**
  - 22% failure rate with typical use
- **Fertility Awareness**
  - 76-88% effective with typical use

Non-hormonal methods: Sterilization

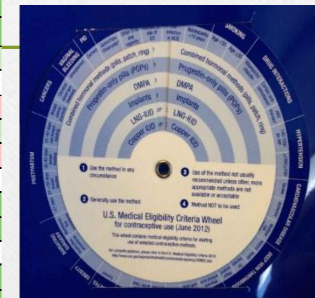
Vasectomy

Tubal Ligation

U.S. Medical Eligibility Criteria for Contraceptive Use

Condition	Sub-Condition	Cu-IUD I	Cu-IUD C	LNG-IUD I	LNG-IUD C	Implant I	Implant C	DMPA I	DMPA C	POP I	POP C	CHC I	CHC C
Diabetes	a. History of gestational disease	1		1		1		1		1		1	
	b. Nonvascular disease												
	i. Non-insulin dependent	1		2		2		2		2		2	
	ii. Insulin dependent[‡]	1		2		2		2		2		2	
	c. Nephropathy, retinopathy, or neuropathy[‡]	1		2		2		3		2		3/4*	
	d. Other vascular disease or diabetes of >20 years' duration[‡]	1		2		2		3		2		3/4*	
Dysmenorrhea	Severe	2		1		1		1		1		1	
Endometrial cancer[‡]		4	2	4	2	1		1		1		1	
Endometrial hyperplasia		1		1		1		1		1		1	
Endometriosis		2		1		1		1		1		1	
Epilepsy[‡]	(see *also* Drug Interactions)	1		1		1*		1*		1*		1*	
Gallbladder disease	a. Asymptomatic	1		2		2		2		2		2	
	b. Symptomatic												
	i. Current	1		2		2		2		2		3	
	ii. Treated by cholecystectomy	1		2		2		2		2		2	
	iii. Medically treated	1		2		2		2		2		3	
Gestational trophoblastic disease (GTD)[‡]	a. Suspected GTD (*immediate postevacuation*)												
	i. Uterine size first trimester	1*		1*		1*		1*		1*		1*	
	ii. Uterine size second trimester	2*		2*		1*		1*		1*		1*	
	b. Confirmed GTD												
	i. Undectectable or non-pregnant ß-hCG levels	1*	1*	1*	1*	1*		1*		1*		1*	
	ii. Decreasing ß-hCG levels	2*	1*	2*	1*	1*		1*		1*		1*	
	iii. Persistently elevated ß-hCG levels or malignant disease, with no evidence or suspicion of intrauterine disease	2*	1*	2*	1*	1*		1*		1*		1*	
	iv. Persistently elevated ß-hCG levels or malignant disease, with evidence or suspicion of intrauterine disease	4*	2*	4*	2*	1*		1*		1*		1*	
Headaches	a. Nonmigraine (*mild or severe*)	1		1		1		1		1		1*	
	b. Migraine												
	i. Without aura (*includes menstrual migraine*)	1		1		1		1		1		2*	
	ii. With aura	1		1		1		1		1		4*	
History of bariatric surgery[‡]	a. Restrictive procedures	1		1		1		1		1		1	
	b. Malabsorptive procedures	1		1		1		1		3		COCs: 3 P/R: 1	
History of cholestasis	a. Pregnancy related	1		1		1		1		1		2	
	b. Past COC related	1		2		2		2		2		3	
History of high blood pressure during pregnancy		1		1		1		1		1		2	
History of pelvic surgery	(see *also* Postpartum [including cesarean delivery])	1		1		1		1		1		1	
HIV	a. High risk for HIV	1*	1*	1*	1*	1		1		1		1	
	b. HIV infection					1*		1*		1*		1*	
	i. Clinically well receiving ARV therapy	1	1	1	1	*If on ARV, see also Drug Interactions.*							
	ii. Not clinically well or not receiving ARV therapy[‡]	2	1	2	1	*If on ARV, see also Drug Interactions.*							

Contraception App



U.S. Medical Eligibility Criteria for Contraceptive Use

2024 Some New Recommendations:

- Added guidance for individuals with chronic kidney disease
- Revisions for conditions like breastfeeding, postpartum, postabortion, obesity, surgery, deep venous thrombosis or pulmonary embolism with or without anticoagulant therapy, thrombophilia, superficial venous thrombosis, valvular heart disease, peripartum cardiomyopathy, systemic lupus erythematosus, high risk for HIV infection, cirrhosis, liver tumor, sickle cell disease, solid organ transplantation, and drug interactions with antiretrovirals used for prevention or treatment of HIV infection
- Expanded Contraceptive Options: Includes new doses or formulations of combined oral contraceptives, contraceptive patches, vaginal rings, progestin-only pills, levonorgestrel intrauterine devices, and vaginal pH modulators.

U.S. Medical Eligibility Criteria for Contraceptive Use

2024 Some New Recommendations:

Provision of Medications for IUD Placement

- Misoprostol is not recommended for routine use for IUD placement. Misoprostol might be useful in selected circumstances (e.g., in patients with a recent failed placement)
- Lidocaine (paracervical block or topical) for IUD placement might be useful for reducing patient pain*
- Person-Centered Counseling: Emphasizes removing unnecessary medical barriers and supporting noncoercive, individualized contraceptive counseling

U.S. Selected Practice Recommendations for Contraceptive Use

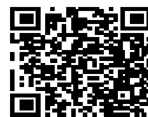
UPDATED

How to Be Reasonably Certain That a Patient is Not Pregnant

A health care provider can be reasonably certain that a patient is not pregnant if the patient 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

In situations in which the health care provider is uncertain whether the patient might be pregnant, the benefits of starting the implant, depot medroxyprogesterone acetate (DMPA), combined hormonal contraceptives and progestin-only pills likely exceed any risk. Therefore, starting the method should be considered at any time, with a follow-up pregnancy test in 2-4 weeks. For IUD placement, in situations in which the health care provider is uncertain whether the patient is pregnant, the patient should be provided with another contraceptive method to use until the health care provider is reasonably certain that they are not pregnant and can place the IUD.



When to Start Using Specific Contraceptive Methods

Contraceptive method	When to start (if the provider is reasonably certain that the patient is not pregnant)[1]	Additional contraception (i.e., back up) needed	Examination/Test needed before initiation[2]
Cu-IUD	Anytime	Not needed	Bimanual examination and cervical inspection[3]
LNG-IUD	Anytime	If >7 days after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 7 days.	Bimanual examination and cervical inspection[3]
Implant	Anytime[4]	If >5 days after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 7 days.	None
DMPA	Anytime[4]	If >7 days after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 7 days.	None
CHC	Anytime[4]	If >5 days after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 7 days.	Blood pressure measurement
Norethindrone or norgestrel POP	Anytime[4]	If >5 days after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 2 days.	None
Drospirenone POP	Anytime[4]	If >1 day after menses started, abstain from sexual intercourse or use barrier methods (e.g., condoms) for 7 days.	None

Abbreviations: BMI = body mass index; CHC = combined hormonal contraceptive; Cu-IUD = copper intrauterine device; IUD = intrauterine device; LNG-IUD = levonorgestrel intrauterine device; POP = progestin-only pill; STI = sexually transmitted infection; U.S. MEC = *U.S. Medical Eligibility Criteria for Contraceptive Use*

[1] As appropriate, see recommendations for Emergency Contraception.

[2] 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 patients with obesity (BMI ≥30 kg/m²). However, measuring weight and calculating BMI (weight [kg] / height [m]²) at baseline might be helpful for discussing concerns about any changes in weight and whether changes might be related to use of the contraceptive method.

[3] Most patients do not require additional STI screening at the time of IUD placement. If a patient with risk factors for STIs has not been screened for gonorrhea and chlamydia according to CDC's *STI Treatment Guidelines* (https://www.cdc.gov/std/treatment-guidelines/default.htm), screening may be performed at the time of IUD placement, and placement should not be delayed. Patients with current purulent cervicitis or chlamydial infection or gonococcal infection should not undergo IUD placement (U.S. MEC 4).

[4] In situations in which the health care provider is uncertain whether the patient might be pregnant, the benefits of starting the implant, DMPA, CHC, and POP likely exceed any risk; therefore, starting the implant, DMPA, CHC, and POP should be considered at any time, with a follow-up pregnancy test in 2–4 weeks.

Source: For full recommendations and updates, see the *U.S. Selected Practice Recommendations for Contraceptive Use* webpage at https://www.cdc.gov/contraception/hcp/usspr/

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UPDATED

Routine Follow-Up After Contraceptive Initiation*

Action	Contraceptive Method				
	Cu-IUD or LNG-IUD	Implant	DMPA	CHC	POP
General Follow-Up					
Advise the patient that they may contact their provider at any time to discuss side effects or other problems or if they want to change the method. Advise patients using IUDs, implants, or DMPA when the IUD or implant needs to be removed or when a reinjection is needed. No routine follow-up visit is required.	X	X	X	X	X
Other Routine Visits					
Assess the patient's satisfaction with their current method and whether they have any concerns about method use.	X	X	X	X	X
Assess any changes in health status, including medications, that would change the method's appropriateness for safe and effective continued use on the basis of U.S. MEC (i.e., category 3 and 4 conditions and characteristics).	X	X	X	X	X
Consider performing an examination to check for the presence of IUD strings.	X	–	–	–	–
Consider assessing weight changes and discussing concerns about any changes in weight and whether changes might be related to use of the contraceptive method.	X	X	X	X	X
Measure blood pressure.	–	–	–	X	–

Abbreviations: CHC = combined hormonal contraceptive; Cu-IUD = copper intrauterine device; DMPA = depot medroxyprogesterone acetate; IUD = intrauterine device; LNG-IUD = levonorgestrel intrauterine device; POP = progestin-only pill; U.S. MEC = *U.S. Medical Eligibility Criteria for Contraceptive Use*.

* These recommendations address when routine follow-up is recommended for safe and effective continued use of contraception for healthy patients. The recommendations refer to general situations and might vary for different users and different situations. Specific populations who might benefit from more frequent follow-up visits include adolescents, those with certain medical conditions or characteristics, and those with multiple medical conditions.

Source: For full recommendations and updates, see the *U.S. Selected Practice Recommendations for Contraceptive Use* webpage at https://www.cdc.gov/contraception/hcp/usspr/

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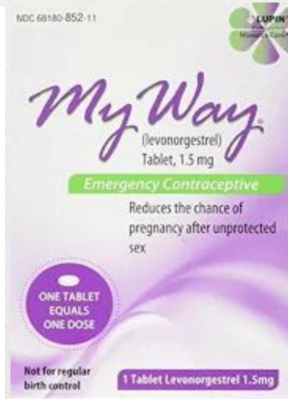
Next Steps: testing

- Pregnancy test (urine)
- STI screening (urine Gonorrhea, Chlamydia, Trichomonas, serum HIV and RPR)
  - Multiple site testing as indicated OP/Anal/Vaginal/Urine
- Bridge methods (any non-LARC method if no contraindications)
- Advanced prescription of emergency contraception if applicable
- Follow-up: 2, 4, 6 weeks-3 months, consider telehealth visits in between visits for adherence

Emergency Contraception

- Can be used up to120-hrs (5 days) after unprotected sex for pregnancy prevention



Next Steps

- **Training (local)**
  - Nexplanon clinical training program opportunities
  - IUD training and proctoring opportunities through Bayer

- **Referrals**
  - For a discussion and/or administration of contraceptive methods that are not available in your office (Depo, LARCS)
  - Adolescent Medicine Specialist
  - Pediatric and Adolescent Gynecology

Adolescent Medicine Specialty Consult Services

Eating Disorders Concerns

- Anorexia, bulimia, binge eating, ARFID, OSFED, body image issues and atypical anorexia
- Medication management related to eating and nutrition concerns
- Nutrition & lifestyle counseling for elevated BMI/obesity

Reproductive Health Concerns

- Breast health
- Chronic pelvic pain, endometriosis, ovarian cysts and other female reproductive concerns
- Contraceptive services and procedures, including LARC, Nexplanon, IUDs (Mirena, Paragard)
- Male reproductive organ concerns
- Menstrual problems
- Polycystic ovary syndrome (PCOS) and other gynecologic issues
- Pregnancy diagnosis/confirmation and options counseling
- STI testing, treatment and prevention (DoxyPEP)
- HIV prevention medication (PrEP, PEP); care for at-risk and HIV positive youth

Other Concerns

- Any adolescent-related concerns
- ADHD/school difficulties assessment, counseling and treatment
- Adolescent issues related to complex chronic medical conditions
- Chronic fatigue and related concerns
- Comprehensive care related to complex chronic medical conditions
- Delayed puberty or delayed sexual development
- Healthcare transition to adult care
- Medication management of depression and anxiety
- Primary care of complex teen concerns and complex care needs, including intellectual and developmental differences
- Primary care medical home for youth involved with/concerns for minor sex trafficking
- Sports Medicine/pre-participation physicals
- Nicotine, marijuana, other drug and alcohol cessation and substance use disorders

Available in person and via telehealth: Call 202-476-5464 to schedule

Available in person and via telehealth at:

Children's National Friendship Heights
5028 Wisconsin Ave. NW, Washington, DC 20016

Children's National Montgomery County
9580 Key West Ave., Rockville, MD 20850

Children's National Prince George's County
2900 North Campus Way, Lanham, MD 20706

Children's National Shaw Metro
641 S Street NW, Washington, DC 20001

Children's National Shepherd Park
7125 13th Pl. NW, Washington, DC 20012

Learning Objectives

- To analyze audience-submitted clinical case conundrums related to GYN/SRH conditions encountered at SBHCs

Common Conundrum!

- "Today a gal came in and said she had unprotected sex, then took Plan B the same day, then had sex again the next day. I read online that Plan B doesn't prevent pregnancy if you have sex AFTER you take it. But I was wondering what the reasoning was for that if Plan B stays in your system for up to 5-6 days. Should it also help prevent pregnancy if you have sex within 24 hours again? Not that we want to encourage that, but just curious how the medication works/why it wouldn't work in this situation."

Contraceptive Counseling Resources*

Centers for Disease Control and Prevention (CDC)

- **CONTRACEPTION [for patients]**
  - https://www.cdc.gov/reproductivehealth/contraception/index.htm
- **SELECTED PRACTICE RECOMMENDATIONS (SPR) [For health care providers]**
  - https://www.cdc.gov/reproductivehealth/contraception/mmwr/spr/summary.html
  - SPR AVAILABLE AS FREE APP
- **MEDICAL ELIGIBILITY FOR CONTRACEPTIVE USE (MEC) [For health care providers]**
  - https://www.cdc.gov/reproductivehealth/contraception/mmwr/mec/summary.html
  - MEC AVAILABLE AS FREE APP
  - **The MEC are developed by the CDC, and may contain information not in the Prescribing Information for the included contraceptive method categories**

CDC and Office of Population Affairs

- **PROVIDING QUALITY FAMILY PLANNING SERVICES (QFP) [For health care providers]**
  - https://www.hhs.gov/opa/guidelines/clinical-guidelines/quality-family-planning/index.html

American College of Obstetricians and Gynecologists (ACOG)

- **LARC (Long Acting Reversible Contraception) Program [For health care providers]**
  - http://www.acog.org/About-ACOG/ACOG-Departments/Long-Acting-Reversible-Contraception
  - https://www.acog.org/-/media/Departments/LARC/LARC-Clinical-Training-Opportunities-Replaceable.pdf?dmc=1&ts=20181015T0927084955
  - https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Adolescent-Health-Care/Counseling-Adolescents-About-Contraception
  - https://www.acog.org/teen
  - ACOG AVAILABLE AS FREE APP (Free access to Committee Opinions)

U.S Food and Drug Administration (FDA) Birth Control Guide

- **CONTRACEPTION [for patients]**
  - https://www.fda.gov/ForConsumers/ByAudience/ForWomen/WomensHealthTopics/ucm117971.htm
- **DOWNLOADABLE BIRTH CONTROL CHART [For patients]**
  - https://www.fda.gov/downloads/ForConsumers/ByAudience/ForWomen/FreePublications/UCM517406.pdf
- **BIRTH CONTROL GUIDE [for patients]**
  - https://www.fda.gov/ForConsumers/ByAudience/ForWomen/FreePublications/ucm313215.htm

Association for Reproductive Health Professionals (ARHP)

- **CONTRACEPTION RELATED RESOURCES FOR HEALTH CARE PROVIDERS AND PATIENTS**:
- http://www.arhp.org/Topics/Contraception

Other Adolescent friendly websites

- www.bedsider.org
- www.reproductiveaccess.org
- www.youngwomenshealth.org
- www.youngmenshealthsite.org
- www.plannedparenthood.org
- https://healthfinder.gov/

***The resources listed do not represent a comprehensive list of all counseling resources and may contain information not found in the Product Information for the specific contraceptive methods mentioned.**

Trusted online sources for reproductive health: websites

- Advocates for Youth https://advocatesforyouth.org/
- Amaze www.amaze.org
- Beyond The Pill https://beyondthepill.ucsf.edu/educational-materials
- Center for Young Women's Health https://youngwomenshealth.org/
- Healthy Children:
  - www.healthychildren.org
  - https://www.healthychildren.org/English/ages-stages/teen/dating-sex/Pages/Birth-Control-for-Sexually-Active-Teens.aspx
- Latin American Youth Center https://www.layc-dc.org/
- Medical Institute for Sexual Health https://www.medinstitute.org/
- National Coalition for Sexual Health https://www.nationalcoalitionforsexualhealth.org/
- National Coalition for Sexual Health provider videos https://www.nationalcoalitionforsexualhealth.org/tools/videos/
- Young Men's Health https://youngmenshealthsite.org/
- Parents and Friends of Lesbians and Gays https://pflag.org/
- Partners In Contraceptive Choice And Knowledge https://picck.org/patient-resources/?fwp_resource_category=patient-counseling-and-education
- Planned parenthood
  - https://www.plannedparenthood.org/planned-parenthood-metropolitan-washington-dc/patient-resources/teen-health-services
  - https://www.plannedparenthood.org/learn/teens
- Reproductive Health Access Project https://www.reproductiveaccess.org/contraception/
- Scarlet teen www.scarletteen.com
- Sex,etc. www.sexetc.org
- Supporting and Mentoring Youth Advocates and Leaders https://smyal.org/
- STD Wizard https://stdwizard.com/#/home
- Reproductive Health Access Project Getting Started with LARC in your Health Center
- Training and technical assistance that eliminate barriers to offering the full range of contraception Upstream

Thank you

Questions?

Contact: smalcolm@childrensnational.org