

# *Long-Acting Reversible Contraception*

AN IMPORTANT SOLUTION TO REDUCE UNINTENDED PREGNANCY



Jointly provided by the Elsevier Office of Continuing Medical Education  
and Miller Medical Communications, LLC.



Office of  
Continuing  
Medical Education



This live activity is supported by an independent educational grant from Teva Pharmaceuticals.

## **An Overview of Long-Acting Reversible Contraception Methods**

## Unintended Pregnancy

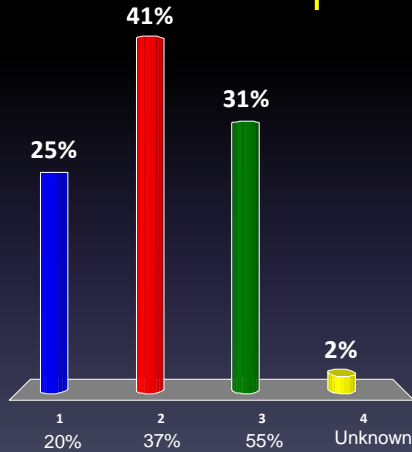
*“All pregnancies should be intended; that is, they should be consciously and clearly desired at the time of conception.”*

*- IOM Committee on Unintended Pregnancy*

## What Percentage of US Pregnancies Are Planned and Prepared For?

1. 20%
2. 37%
3. 55%
4. Unknown

## What Percentage of US Pregnancies Are Planned and Prepared For?

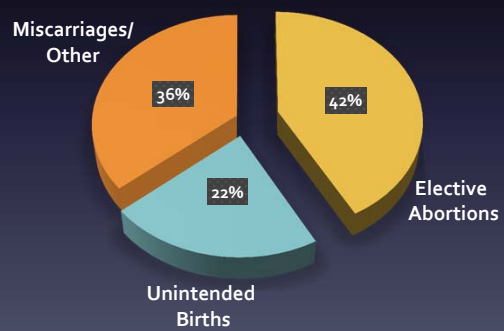


## Unintended Pregnancy in the United States

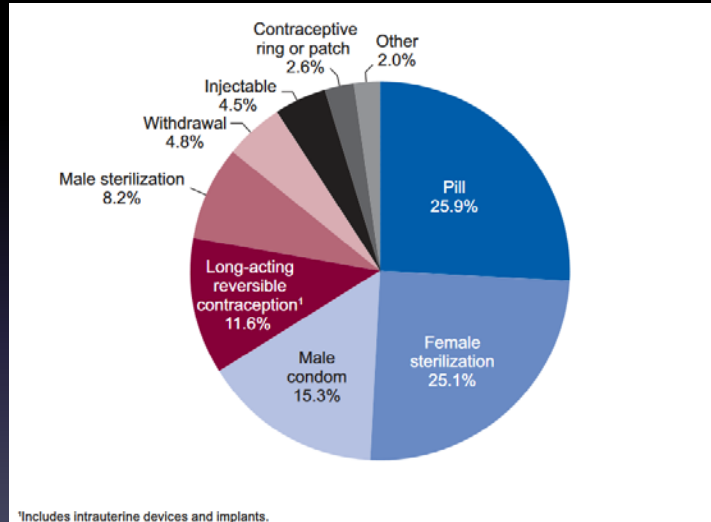
6.1 MILLION PREGNANCIES (2011)

Intended: 55%

Unintended: 45%



## United States Contraceptive Use



Centers for Disease Control and Prevention/National Center for Health Statistics. National Survey of Family Growth, 2011-2013. [http://www.cdc.gov/nchs/nsfg/nsfg\\_2011\\_2013\\_puf.htm](http://www.cdc.gov/nchs/nsfg/nsfg_2011_2013_puf.htm). Accessed September 12, 2016; Daniels K et al. *Natl Health Stat Report*. 2015;(86):1-14.

## Why Do Problems Persist?

- Under-appreciation of the health risks of pregnancy
- No concept that pregnancy is something a woman *should* prepare for
- High rates of ambivalence and indifference
- Over-estimation of risks of contraception
  - Teens worried about weight, acne
  - Older women worry about cancer

Gordon CM, Pitts SA. *J Clin Endocrinol Metab*. 2011;97(1):9-15.

## First Good News for US Unintended Pregnancy Rates in Decades

- Rates of unintended pregnancy in United States overall dropped for first time in a decade
  - 51%–45% 2008–2011
- Same time use of implants and IUDs increased from 8.5% in 2009 to 11.6% in 2011

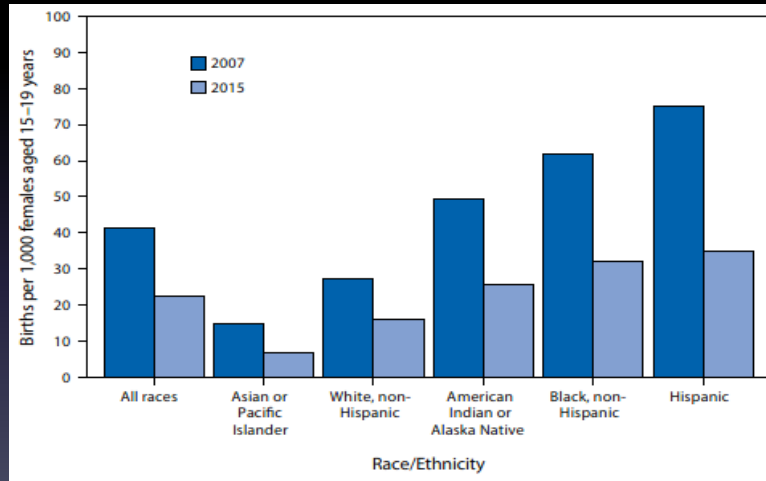
Finer LB, Zolna MR. *N Engl J Med.* 2016;374(9):843-852; Kavanaugh ML et al. *Obstet Gynecol.* 2015;126(5):917-927.

## Good News for Teens, Too!

- Pregnancy rates declined 25% in women aged 15 to 19 years
- Disparities declining
- Hispanic teens down 51%
  - Black teens down 44%
    - Minority groups shared in this process
- Somber news
  - US teen pregnancy rates still higher than teen pregnancy rates in other developed countries

Finer LB, Zolna MR. *N Engl J Med.* 2016;374(9):843-852; Romero L et al. *MMWR Morb. Mortal Wkly Rep.* 2016;65(16):409-414.

## Birth Rates Among Teens Aged 15-19 Years, by Race/Ethnicity



MMWR Morb Mortal Wkly Rep. 2016;65(32):832.

## Why Now? What Changed?

- ACA being phased in
  - Beware. Not all methods will be covered ever!
- New practice developments
- CHOICE Study
- Colorado Initiative
- CDC: PID can be treated with IUD in place
- Medicaid coverage for postpartum placement of IUD and implants in more than a dozen states

## New Practice Developments

- One key question (or maybe 3–5 questions)
- US Medical Eligibility Criteria updated 7/16
- Selected Practice Recommendations, Contraception Update, 2016
  - Key points –
    - Quick Start
    - Adequate supplies
    - Counsel from most to least effective
- ACOG Committee Opinion Number 672 (9/2016)
  - Management of challenges of LARC

Centers for Disease Control and Prevention. United States Medical Eligibility Criteria (US MEC) for Contraceptive Use, 2016. <http://www.cdc.gov/reproductivehealth/contraception/usspr.htm>. Accessed October 11, 2016; CDC US Selected Practice Recommendations for Contraceptive Use, 2016. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6205a1.htm>.

## Contraception for Adolescents

- AAP Committee on Adolescence 2014
  - . . . “Given the efficacy, safety and ease of use, LARC methods should be considered first line contraceptive choices for adolescents. . .”
- ACOG
  - “Encourage implants and IUDs for all appropriate candidates, including nulliparous women and adolescents”
  - “Adopt same-day insertion protocol”

Committee on Adolescence. *Pediatrics*. 2014;134(4):e1244-e1256; American College of Obstetricians and Gynecologists Committee on Gynecologic Practice: Long-Acting Reversible Contraception Working Group. *Obstet Gynecol*. 2009;114(6):1434-1438.

## US CHOICE Study

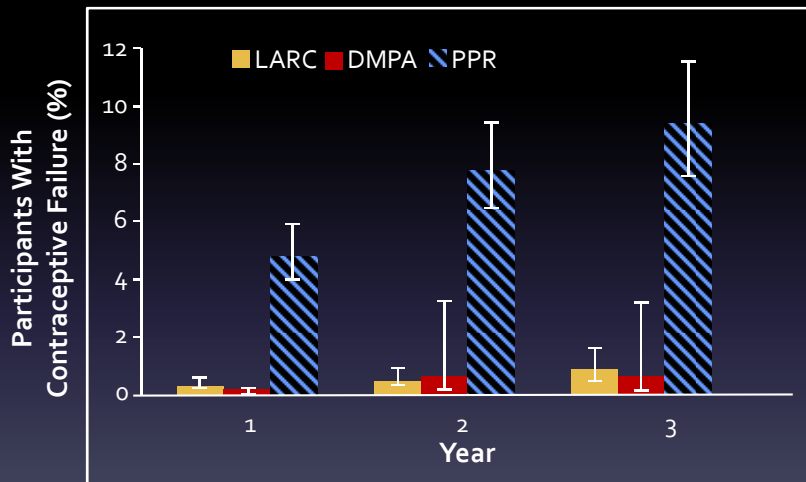
- Longitudinal, observational study in St. Louis
  - 9256 women given free contraception with counselling
  - Choices: IUD, implant, DMPA, pill, patch, ring
- 75% of women chose IUDs or implants

1st Year		
	Continuation Rate	Pregnancy Rate
IUD, Implant	86%	0.27%
Pill, Patch, Ring	55%	4.55%

DMPA=depot medroxyprogesterone acetate.

Peipert JF et al. *Obstet Gynecol.* 2012;120(6):1291-1297; Rosenstock JR et al. *Obstet Gynecol.* 2012;120(6):1298-1305; Winner B et al. *New Engl J Med.* 2012;366(21):1998-2007.

## CHOICE Study: Contraceptive Failure



PPR=pills, patch, or ring.

Winner B et al. *N Engl J Med.* 2012;366(21):1998-2007.

From *N Engl J Med.* Winner B, Peipert JF, Zhao Q, et al. Effectiveness of long-acting reversible contraception. 366, 1998-2007. Copyright © 2012 Massachusetts Medical Society. Reprinted with permission from Massachusetts Medical Society.



## Provision of No-Cost, Long-Acting Contraception and Teenage Pregnancy CHOICE

- Less than 5% of US teens use implants/IUDs
- 14,04 teenaged women in CHOICE study
  - 72% chose implants or IUDs

	CU-IUD	Implant	LNG-IUD	DMPA	Ring	COC	Patch
Teen Years	57.3	633.3	394.2	193.8	72.2	229.0	32.9
Failure rates/ 1000wy	0	0	5.1	5.4	51.8	56.8	60.8

COC=combined oral contraceptive pill; CU=copper; LNG=levonorgestrel.

Finer LB et al. *Fertil Steril.* 2012;98(4):893-897; Secura GM et al. *N Engl J Med.* 2014;371(14):1316-1323.

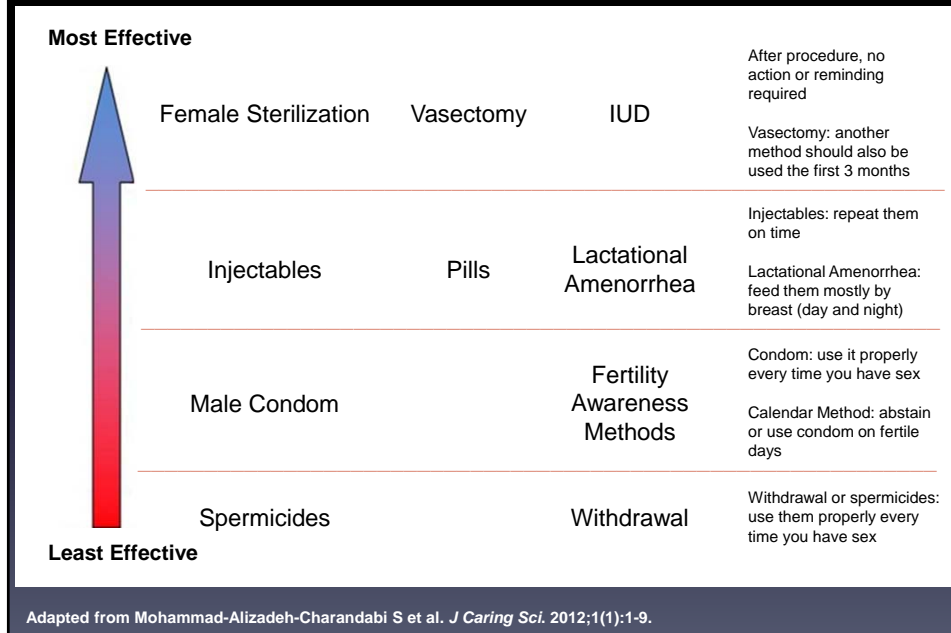
## Why Immediate Post-Pregnancy Initiation?

- Women may fail to return
  - 42% of women wanting IUD and scheduled for delayed placement never returned
- Pregnancy rates higher when initiation delayed

12-Month Outcomes		
	Immediate	Delayed
Pregnancy	15%	27.3%
Repeat abortion	9.9%	17.7%

Gillett PG et al. *Fertil Steril.* 1980;34(2):121-124; Langston AM et al. *Contraception.* 2014;89(2):103-108.

## The Effectiveness of Contraceptive Methods



## Types of LARC

Generic	Brand	Reservoir
Etonogestrel implant	Nexplanon	68 mg ENG
LNG IUD 20 mcg/24 hr	Mirena/Liletta	52 mg LNG
LNG IUD 19.5 mg	Kyleena	19.5 mg LNG
LNG IUD 13.5 mg	Skyla	13.5 mg LNG
T380A Copper IUD	ParaGard	380 mm <sup>2</sup>

## IUDs and Implants

- Top tier of efficacy
- Rapidly reversible
- Extremely cost effective
- Not abortifacients

## Who Are Appropriate Candidates for IUDs and Implants?

- Just about every woman of reproductive age who seeks very effective, convenient, safe, and reversible contraception
- Long-acting refers to 1 year or more
- Very few contraindications
- Candidates include:
  - Adolescents
  - Nulliparous women
  - Patients with contraindications to estrogens
  - Understand placement and removal risks

## Take Home Messages

- IUDs and implants provide top-tier contraception
  - Pills, patches, rings, injection have 21 times higher pregnancy risk
- Provide method to all candidates who are not actively seeking pregnancy within 12 months
- Use US MEC Eligibility Criteria
  - Be aware of labeling
- Eliminate barriers to access
- Counsel effectively
- Provide method same day as visit

## Case Studies

## Patient Case #1

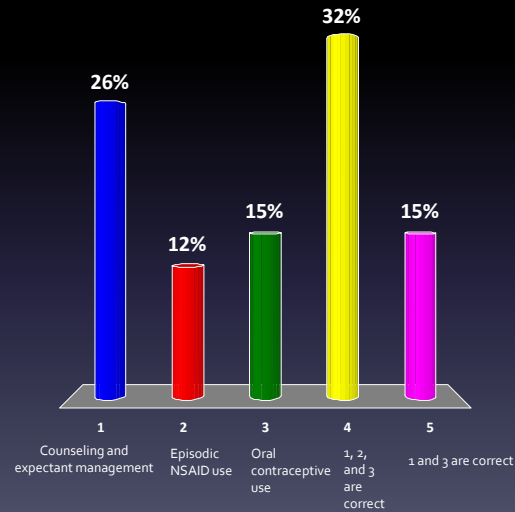
- A 28-year-old woman returns 10 months after a contraceptive implant was placed
- Unhappy regarding persistent irregular bleeding that requires daily protection
- Speculum examination: small amount of old dark blood at the cervical os
  - No cervicitis noted

What strategy is most appropriate for this woman's irregular bleeding?

---

1. Counseling and expectant management
2. Episodic NSAID use
3. Oral contraceptive use
4. Answers 1 and 3 are correct
5. Answers 1, 2, and 3 are correct

## What strategy is most appropriate for this woman's irregular bleeding?



## Management of Patient With Contraceptive Implant and Irregular Bleeding

- Anticipatory guidance and subsequent reassurance appropriate for women reporting bleeding during implant use
- Pharmacologic management appropriate if bleeding will result in implant removal
- Small short-term trials: NSAIDs reduce irregular bleeding in implant users

## Management of Patient With Contraceptive Implant and Irregular Bleeding

- Estrogen-progestin OC use reduces bleeding in implant users
  - 32 participants, randomized trial
  - 14-day course of OC use reduced bothersome bleeding in implant users
  - However, most participants had a bleeding recurrence after OC discontinuation

Guiahi M et al. *Obstet Gynecol.* 2015;126(3):508-513.

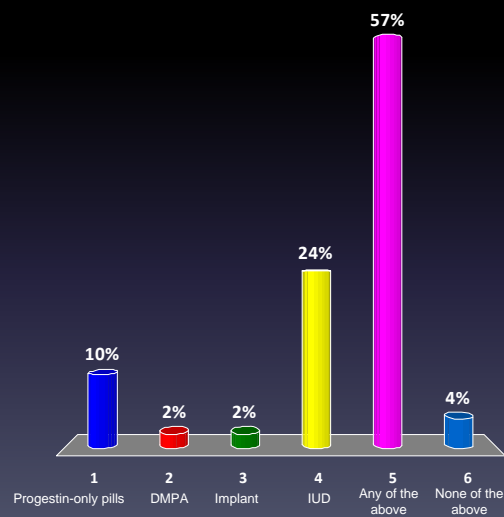
## Patient Case #2

- A 23-year-old parous woman at 25 weeks gestation
- Plans to breastfeed her infant, but will return to work within 1 month of delivery, making exclusive breastfeeding difficult after that time

## Which contraceptive options would you offer her to initiate before she leaves the hospital?

1. Progestin-only pills
2. DMPA
3. Implant
4. IUD
5. Any of the above
6. None of the above

## Which contraceptive options would you offer her to initiate before she leaves the hospital?





## Patient Case #3

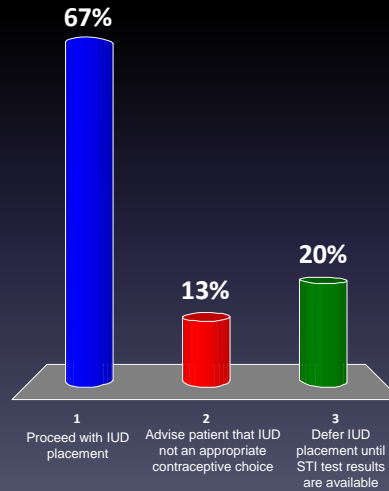
- A 33-year-old woman presents for IUD placement
- Not an adherent pill taker; not receptive to using implant
- Homeless; transportation for office visits difficult
- Reports numerous recent sexual partners
- 18 months ago treated for chlamydia
- Speculum examination
  - No evidence of vaginitis or cervicitis

In addition to testing for STI and recommending consistent condom use, what plan would be best for this patient?

---

1. Proceed with IUD placement
2. Advise patient that IUD not an appropriate contraceptive choice
3. Defer IUD placement until STI test results are available

In addition to testing for STI and recommending consistent condom use, what plan would be best for this patient?



## IUD Placement in Patients With Uncertain STI Status

- Deferring IUD placement or refusal to place an IUD would put this patient at elevated risk for unintended pregnancy
- ACOG recommends in absence of obvious infection, proceeding with STI screen and IUD placement on same day with prompt treatment if STI screen positive
- However, if clinical evidence of cervicitis/salpingitis, placement should be deferred until after treatment

## Patient Case #4

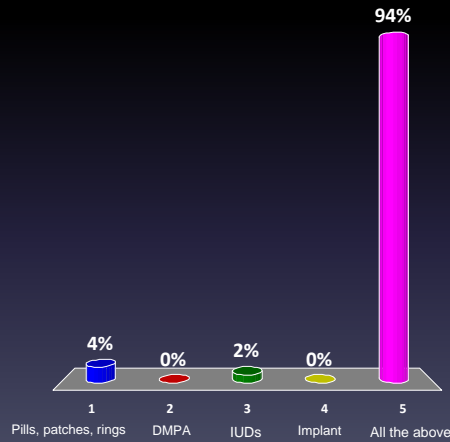
- A healthy 17-year-old woman presents to discuss contraceptive options
- Sexual debut in previous week with boyfriend of 3 months
- Imperfect use of condom; she used emergency contraceptive just to make sure; wants to use something to protect herself
- As you talk to her about IUDs and implants, you begin to suspect she does not know the difference. She refers to them as “invasive methods” and she does not want anything like that inside her body
- She is also deeply concerned about using hormones

Medically, for which method(s) is this patient a candidate?

---

1. Pills, patches, rings
2. DMPA
3. IUDs
4. Implant
5. All the above

## Medically, for which method(s) is this patient a candidate?



## Patient Case #4: Other Issues

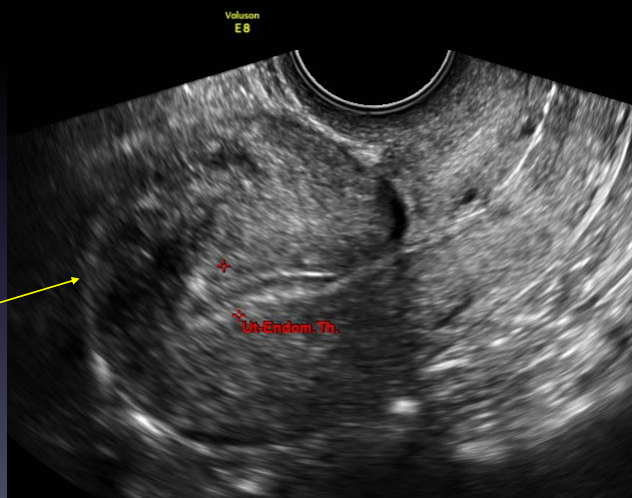
- In what order do you offer her options?
- How do you address her concerns about the tier one/tier two methods?
  - Where did she get those images?
- Do you think it would be reasonable to:
  - Promote the superior efficacy of IUDs/implants?
  - Compare the health risks of these methods with pregnancy?
- Do you know any age-appropriate Web site that could give her accurate and engaging information?

## Patient Case #5

- A 36-year-old P2 presents regarding heavy regular menses
- Prior tubal sterilization
- Bimanual examination: bulky, mobile, nontender uterus
- Transvaginal ultrasonography finds bulky uterus, no fibroids
  - Globular uterus with diffuse myometrial changes/heterogeneity suggests adenomyosis...

## Patient Case #5

Globular uterus with myometrial heterogeneity



*Courtesy of Andrew Kaunitz, MD*

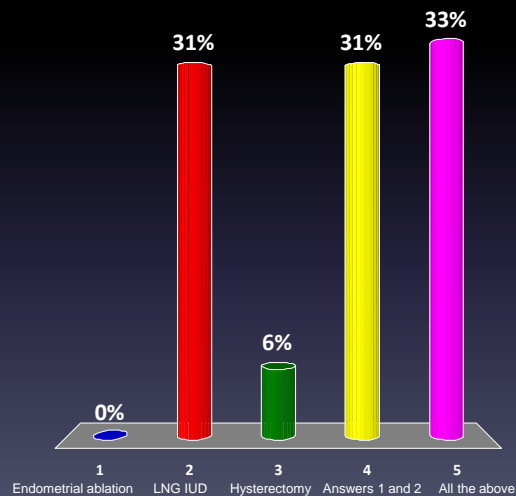
## Patient Case #5 (cont'd)

- Patient desires no future pregnancies
- Recently started a new job and wishes to minimize absence from work
- A friend recently underwent endometrial ablation with good results
  - Patient wonders if this would be a good choice for her

Which of the following options would be reasonable for this patient?

1. Endometrial ablation
2. LNG IUD
3. Hysterectomy
4. Answers 1 and 2 are correct
5. All the above

Which of the following options would be reasonable for this patient?



## Management of Heavy Menstrual Bleeding Due to Adenomyosis

- Endometrial ablation a reasonable option
  - However, ablation may be less effective in setting of adenomyosis
- LNG IUD as effective as endometrial ablation in treating heavy menstrual bleeding
  - In women with adenomyosis, IUD expulsion rates elevated
- In some women with symptomatic adenomyosis, neither ablation nor IUD may provide adequate long-term relief

El-Nashar SA et al. *Obstet Gynecol.* 2009;113(1):97-106; Kaunitz AM et al. *Obstet Gynecol.* 2009;113(5):1104-1116; Kaunitz AM, Inki P. *Drugs.* 2012;72(2):193-215.

## Management of Heavy Menstrual Bleeding Due to Adenomyosis

- Hysterectomy: definitive treatment of heavy bleeding associated with adenomyosis
  - Is associated with greater risks than ablation or IUD
  - Involves missing work

## Patient Case #6

- A 42-year-old user of LNG IUD presents with amenorrhea
- Two LNG IUDs over past 8 years
- Medically controlled hypertension
- BMI 32 kg/m<sup>2</sup> , prediabetes, gained 8 lbs in past 6 months
- Notwithstanding counseling that amenorrhea with LNG IUD does not indicate menopause, she wants to see her period at least once in a while so she will know she is not menopausal

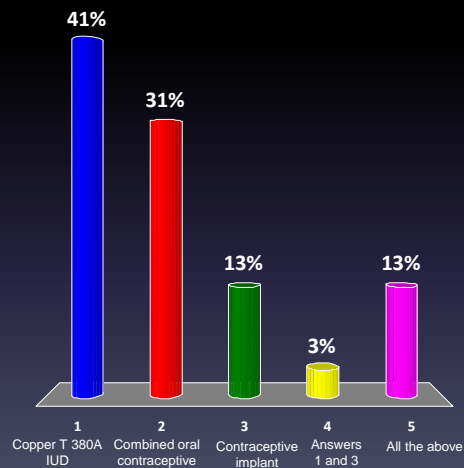


## Which contraceptive method would you offer this patient?

---

1. Copper T 380A IUD
2. Combined oral contraceptive
3. Contraceptive implant
4. Answers 1 and 3 are correct
5. All the above

## Which contraceptive method would you offer this patient?



## Patient Case #6: Issues

- What would you do if she had intercourse last night?
- How would you start her on her method?
- How do we choose which emergency contraceptives would be best for each woman?
- What is the 5-day rule for UPA EC?



Thank you!