# NONE? • A LITTLE? • A LOT?

## How to Help Contraceptors Get the Bleeding Pattern They Want

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# Learning Objectives

- List 2 treatments for unfavorable bleeding with progestin-only contraception
- Demonstrate patient centered language for discussing amenorrhea
- Describe the most common bleeding pattern experienced by IUD users

# Unfavorable Bleeding with Progestin-Only Contraceptives

- Etiology poorly understood
- Depends on dose/route of progestin
- Initially due to rapid endometrial thinning caused by progestin
- Sustained exposure may lead to endometrial instability and atrophy leading to fragile endometrium that bleeds easily

(Zigler, 2017)

# Bleeding Patterns are Influenced By…

- Type/dose of progestin
- How the progestin is delivered (local/systemic)
- Duration of use
- Patterns often change with time

(Zigler, 2017)

# Dose Dependent Effect of Progestin on Ovary

| Dose/ Potency | Minimal | Low | Mid | High |
|---|---|---|---|---|
| Examples | Levonorgestrel IUD | Norethindrone POP | Implant, Drospirenone POP, CHCs | DMPA injection 150 mg and 104 mg Sub-Q |
| Ovulation | Rarely inhibited, often affected | Sometimes inhibited, often affected | Reliably inhibited | Reliably inhibited |
| Ovarian production of endogenous hormones | Unaffected | Unaffected | Unaffected | Suppressed; may cause hypo-estrogenic state |
| Follicular growth | Yes | Possible | Possible | No |

(Erkkola, 2013 | Grimes, 2013 | Horvath, 2000 | Hatcher, 2018)

# Dose Dependent Effect of Progestin on Cervix/Uterus

| Dose/ Potency | Minimal | Low | Mid | High |
|---|---|---|---|---|
| Examples | Levonorgestrel IUD | Norethindrone POP | Etonogestrel implant, Drospirenone POP | DMPA injection 150 mg and 104 mg Sub-Q |
| Cervical mucous | Reliably thickened | Reliably thickened | Reliably thickened | Reliably thickened |
| Endometrium | Reliably thins endometrium | Reliably thins endometrium | Reliably thins endometrium | Reliably thins endometrium |

# Amenorrhea

- Don't…
  - Assume you know why the individual objects to amenorrhea
  - Ask "why?"… "Why on earth would you want to get your period?"
- Do…
  - Ask, "what is concerning to you about not getting your period?"
  - Validate: "I hear that a lot!"

**“I would always worry that I might be pregnant.”**

- “I can see that it’s very important to you not to get pregnant until you are ready.”
- “Many of my patients like to get their period every month because they feel like it lets them know they aren’t pregnant.”

**“I would always worry that I might be pregnant.”**

- “Interestingly many people still bleed in the beginning of a pregnancy…”
- “Pregnancy tests at the 99-cent store are plentiful and can be very reassuring!”

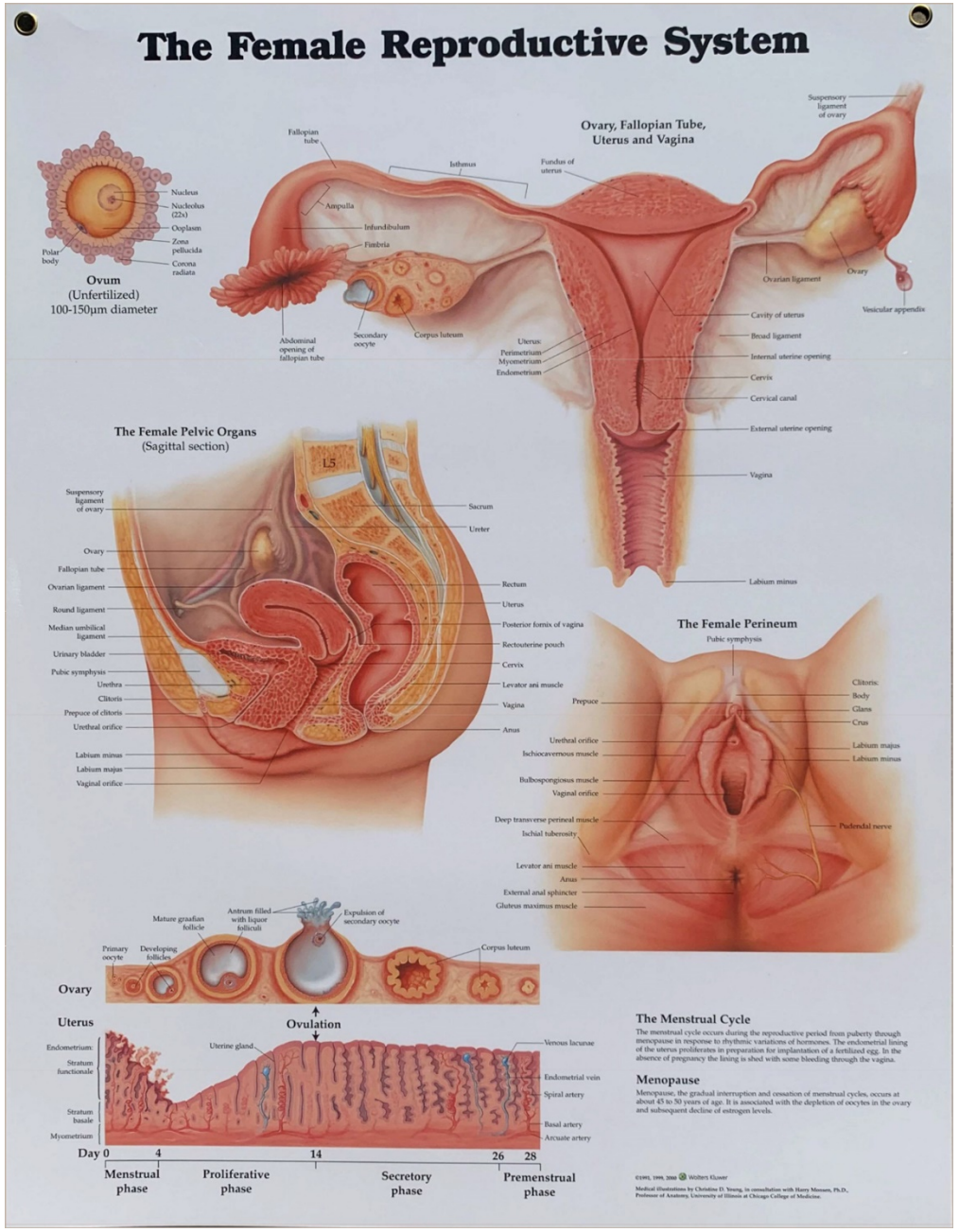
**“My mom said it’s not healthy not to get my period.”**

- “Your mother is completely right!…. when you are not on hormonal contraceptives, it is important to get a monthly period. It’s great that you know that.”
- “I’m so glad you know that when you are not using birth control with hormones and you miss your period you need to come in so we can see what’s up!”

**“My mom said it’s not healthy not to get my period.”**

“Interestingly, if someone is using birth control that is hormonal, the hormones keep their uterus very healthy and thin. It *actually prevents* cancer of the uterus” (Show a picture)

“My mom said it’s not healthy not to get my period.”



# Substantial Variability in How Individuals Respond to Bleeding

- Preferences
- Fears
- (Mis)information
- Tolerance
- Shaped by both personal, individual factors and external influences

(Polis, 2018 | DeMaria, 2019 | Nappi, 2016)

# How the Implant "changes the way your period comes"

- Bleeding pattern is unpredictable
- In each 90-day time period studied:
  >50% of users had either minimal bleeding/spotting, or no bleeding

"How would it be for you if you didn't get your period while you were using the implant?"

(Nexplanon, 2019 | Lazorwitz, 2019 | Lazorwitz, 2019 | Chen, 2018)

# How the Implant "changes the way your period comes" (cont'd)

- 1 in 4-5 users had frequent or prolonged bleeding ("bleeding that goes on for a long time and can be really annoying")

"Have you ever had bleeding like that?"
"How did you manage it?"

(Nexplanon, 2019 | Lazorwitz, 2019 | Lazorwitz, 2019 | Chen, 2018)

# Tends to Get Better with Time

- If one has a favorable bleeding pattern initially, it tends to stay favorable
- Pattern tends to get better with time
- Lower serum etonogestrel levels predict better bleeding patterns
- 20% discontinuation at one year– half of discontinuation is for bleeding

(Nexplanon, 2019 | Lazorwitz, 2019 | Lazorwitz, 2019 | Chen, 2018)

# Tends to Get Better with Time (cont'd)

80% of those with favorable and 40% of those with unfavorable bleeding patterns will have favorable bleeding in the next 90 days

(Mansour, 2019)

# How the Hormonal IUD "Changes the way your period comes"

- Most cycles are ovulatory so cyclic bleeding is menses
- 90% reduction in menstrual blood loss at 1 year
- Menses become increasingly light
- Amenorrhea 20-80%

(Bachmann, 2009 | Backman, 2002 | Hidalgo, 2002 | Mansour, 2012)

# Bleeding Usually Decreases After 3 Months

- First 3-month interval: 35.6 days of bleeding or spotting in the first 90 days
- 3-6 months: 19.1 days
- 6-9 months: 14.2 days
- 9-12 months: 11.7 days

(Maldonado, 2020 | Schreiber, 2018)

# Bleeding Usually Decreases After 3 Months (cont'd)

- Measures for bleeding-only and spotting-only days also decreased throughout the first year
- The greatest decrease is between the first and second intervals and the next biggest decrease is between the second and third interval

(Maldonado, 2020 | Schreiber, 2018)

# Unfavorable Bleeding Improves After 3 Months

- First 3-month interval:
  - 22% prolonged bleeding
  - 67% irregular bleeding
- 9-12 months:
  - 3% prolonged bleeding
  - 19% irregular bleeding

(Sørdal, 2013)

# Levonorgestrel 19.5 and 13.5 IUDs: Menstrual Effects

- Less amenorrhea than LNG 52
- More likely to have spotting and frequent irregular bleeding initially
- Virtually no ovulation suppression so cyclic bleeding is a menses

(Goldthwaite, 2019 | Gemzell-Danielsson, 2012 | Nelson, 2013)

# It Just Gets Better and Better…

Decreased bleeding with placement of subsequent LNG IUD

(Heikinheimo, 2014)

# How the shot "Changes the way your period comes"

- Most people have no menses while they are using DMPA IM or SQ
- Amenorrhea usually starts within 3-6 months -- after the first 1-2 shots
- Initial unfavorable bleeding improves with each subsequent injection
- Amenorrhea may last 1-2 years after discontinuing

(Zigler, 2017)

# How using a POP "Changes the way your period comes"

- With the norethindrone POP many people do not ovulate
- Bleeding ranges from regular light menses to amenorrhea
- Some unfavorable bleeding– can't schedule bleeding
- DRSP POP has a hormone-free interval (HFI) so bleeding can be scheduled

(Grimes, 2013 | Palacios, 2020)

# Addressing Bleeding Concerns

- Anticipatory guidance
- Ask what concerns them
- Normal side effect, not dangerous, doesn't indicate reduced effectiveness
- Any concomitant medications that may reduce effectiveness of progestin

# Work Up of Unscheduled Bleeding

Work up in context of other symptoms (pain, vaginal discharge, postcoital bleeding)

Consider:

- Pregnancy test
- Speculum and bimanual exam
- Cervical cancer screening
- GC/CT
- Pelvic ultrasound
- EMB

# 3 Buckets



# NSAIDs for Unfavorable Bleeding: First Line for all Progestin-only Methods

Inhibit prostaglandin synthesis which is increased in the endometrium with abnormal bleeding

Options

- Naproxen sodium 220 mg PO BID
- Ibuprofen 800mg PO TID
- Mefanamic acid 500 mg PO TID

(Zigler, 2017 | Curtis, 2016 | Friedlander, 2015 | Bofill Rodriguez, 2019)

# Estrogen for Unscheduled Bleeding with Implant (POP, DMPA)

- Estrogen to build/support/ repair endometrium
- Options
  - Monophasic combined OCP
  - Vaginal Ring
  - Estradiol 1 mg-2 mg PO
  - Conjugated Equine Estrogen 0.625 mg-1.25 mg PO

(Zigler, 2017 | Abdel-Aleem, 2013 | Hou, 2016 | Guiahi, 2015 | Curtis, 2016)

# Treatment for Bleeding with LNG IUD in the First 90 days

- NSAIDs
- Transdermal E2 shown not to work

(Madden, 2012 | Sordal, 2013 | Zigler, 2017 | Friedlander, 2015)

# Other Treatments Shown to be Effective but Not Practical or Still Experimental

- Doxycycline:  only works while using
- Mifepristone:  hard to obtain
- Tamoxifen:  promising data
- Ulipristal acetate:  hard to obtain
- Tranexamic Acid (250-1300 mg bid-QID):  frequent dosing, DVT risk

(Abdel-Aleem, 2013 | Zigler, 2017 | Zigler, 2018 | Cohen, 2019 | Simmons, 2017)

# Treat Bleeding with a Progestin-only Method with a Progestin-only Pill

- *No data*
- Anecdotal reports of benefit for unfavorable bleeding
- Safe
- Increased progestin effect may hasten thinning

(Kaislasuo, 2015)

# Who Would've Thought…?

Smaller uterine dimensions are associated with more favorable bleeding and less pain with IUD

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