

What's new and on the horizon in contraception?

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Disclosures

- None
- Will discuss brand names as pertinent for new contraceptive methods

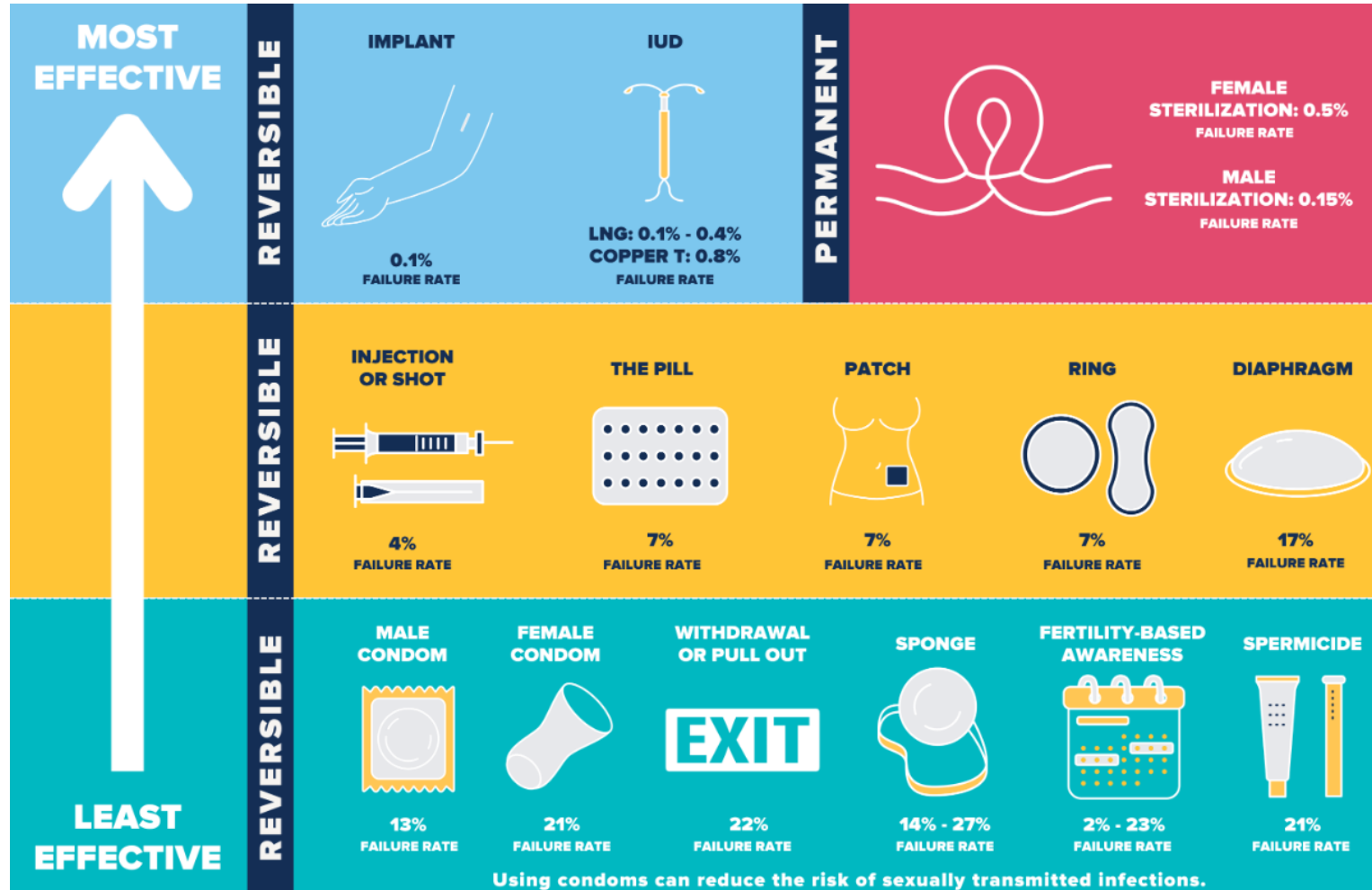


Objectives

1. Review updates and recent research on contraception.
2. Describe novel contraceptive methods and technologies in development.
3. Discuss contraceptive provision in the current landscape of reproductive health care.



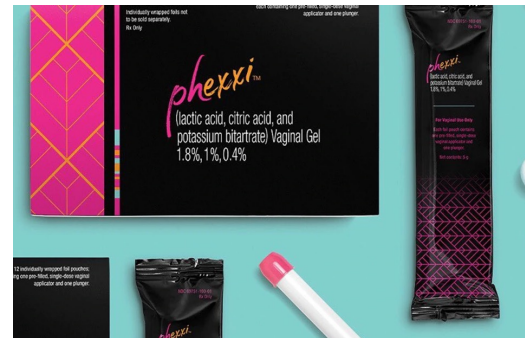
Contraceptive options



Newest options!



Annovera™
(segesteron acetate and ethinyl estradiol vaginal system)
Delivers 0.15 mg/0.013 mg per day



2019

2020

2021

2022

2023

2024



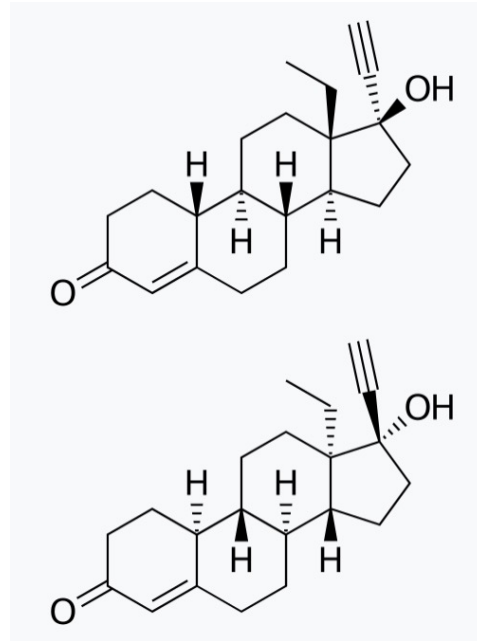
Over-the-counter progestin-only pill

- Norgestrel 0.075 mg daily (Opill[®])
- FDA approved July 2023 with planned availability in early 2024
- No age restrictions
- 28 pill pack, no placebo pills



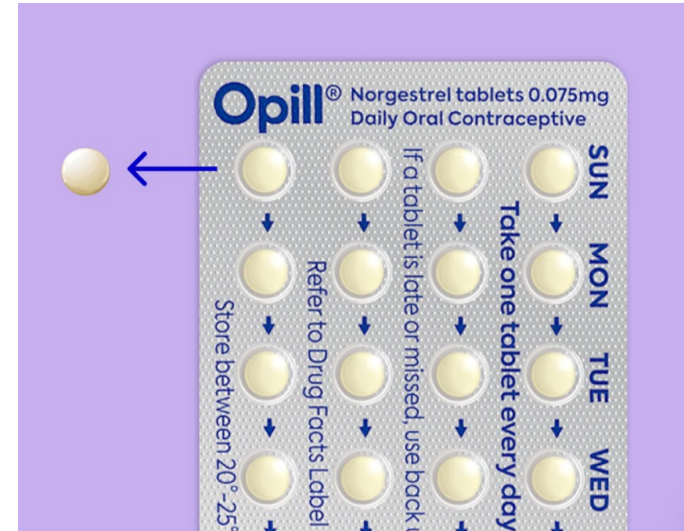
Norgestrel

- Synthetic 2nd generation progestin
- Racemic mixture of active levonorgestrel (LNG) and inactive dextronorgestrel
 - Half as potent as LNG
- Weak androgenic activity
- Available in combined OCP



Over-the-counter progestin-only pill

- Current breast cancer is only absolute contraindication
- Relative contraindications:
 - Benign or malignant liver tumors
 - Severe cirrhosis
 - Acute liver disease
 - Positive antiphospholipid antibodies
 - Past breast cancer
 - Malabsorptive bariatric surgery
 - Drug-drug interactions

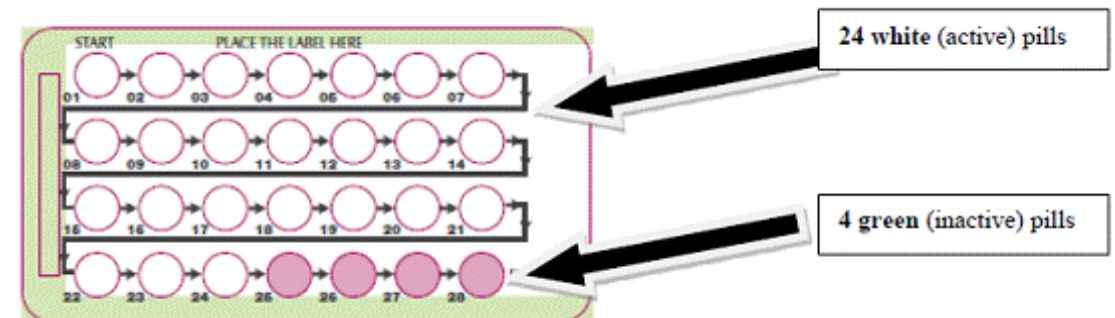


How does the Opill[®] compare to other POPs?

- Norethindrone 0.35 mg (Micronor[®])
 - 1st generation progestin
- Drospirenone 4 mg (Slynd[®])
 - 4th generation, derived from spironolactone

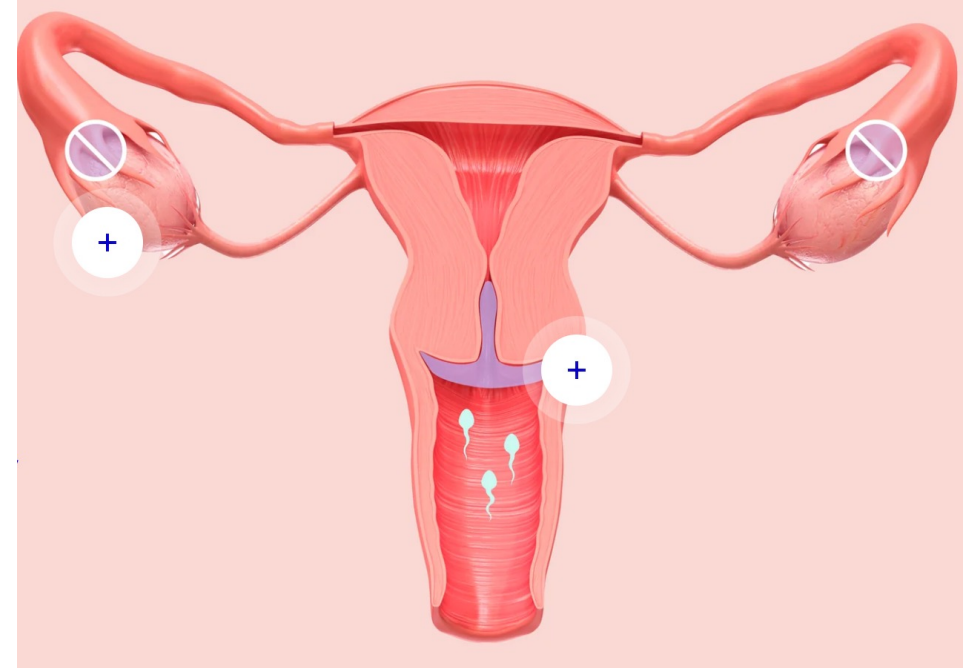


Slynd[®]
(drospirenone) tablets, 4 mg



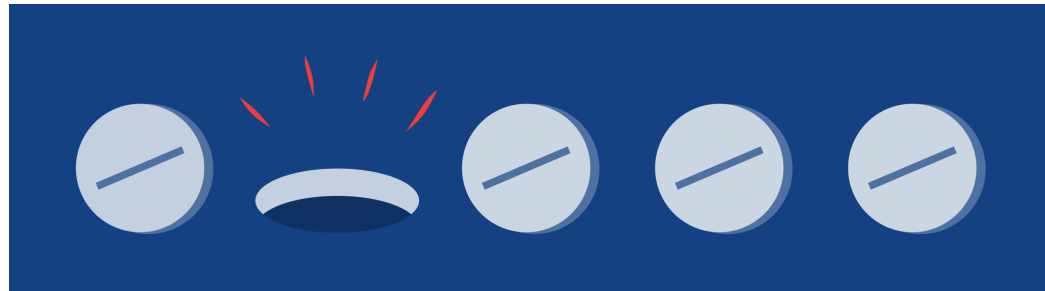
Mechanism of action

- OTC POP
 - Primary = thickens cervical mucus
 - Secondary = ovulation suppression (50-66%)
- DRSP only pill is similar except for higher ovulation suppression (99+%)
- NET only pill does not reliably suppress ovulation



Over-the-counter progestin-only pill

- Recommended to take at the same time/within 3 hours
 - Small study showed no changes in cervical mucus by 6 hours of missing OTC POP
- If late or miss a pill, need back-up for 48 hours
 - NET only pill: same
 - DRSP only pill: given long half-life, back-up is only needed if 2+ tabs are missed



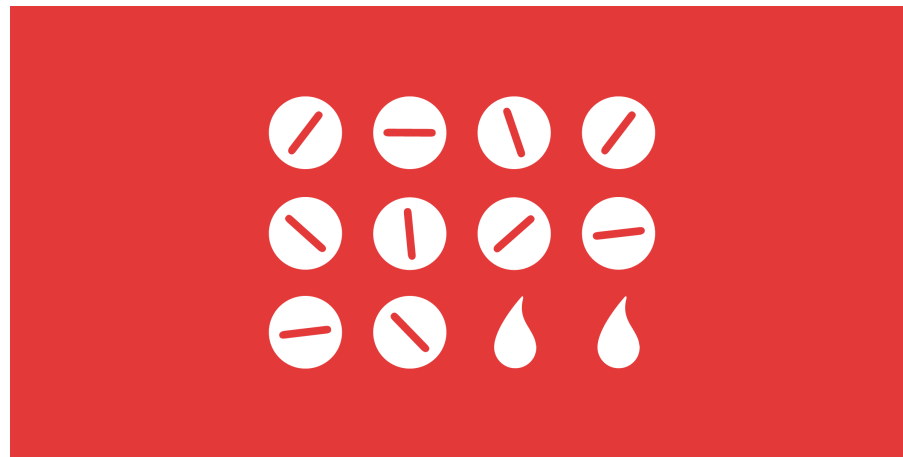
Contraceptive efficacy

- OTC POP: Pearl Index 4.4 (95% CI, 1.9-8.8)
- Perfect use of POPs – 99.5%, typical use – 95%
- DRSP only pill typical use – 98%



Bleeding profiles

- OTC POP: 48% BTB/spotting, up to 1/4 were amenorrheic
- DRSP only pill: 30% BTB/spotting, <5% prolonged bleeding, up to 1/3 amenorrheic
- NET only pill: 70% BTB/spotting, 33-50% prolonged bleeding



OTC POP: side effects

- 17.4% discontinued due to side effects
 - 2/3 were due to bleeding
- Headache
- Breast tenderness
- GI side effects
- Acne



Comparison

DRSP only pill:

- Highest ovulation suppression
- 24hr delayed intake window ($t_{1/2} = 30+$ hr)
- Anti-androgenic
- High cost without insurance coverage*

OTC pill:

- Decent ovulation suppression
- 3hr delayed intake window ($t_{1/2} = 12$ hr)
- Not yet available

NET only pill:

- Inconsistent ovulation suppression
- 3hr delayed intake window ($t_{1/2} = 9$ hr)
- Most bleeding side effects
- Cheap



Take home points: progestin-only pills

- DRSP only pill is the most forgiving, anti-androgenic pill with high ovulatory suppression and good bleeding profile
- But over a 1/3 of OCP users have missed pills due to issues with getting their next supply, making the OTC pill important!



OTC approval

Reminder Tips are inside the package to help you remember to take Opill® at the same time every day.

Do not flush tablets. Dispose via a take-back option or see www.fda.gov/drugdisposal

Opill®
Norgestrel tablets 0.075mg
Daily Oral Contraceptive

Drug Facts	
Active ingredient (in each tablet) Norgestrel 0.075 mg	Purpose Daily Oral Contraceptive
Use To prevent pregnancy	
Warnings Allergy alert: Do not use if you are allergic to this product or any of its ingredients, such as FD&C yellow No.5 (tartrazine). People allergic to aspirin often have a tartrazine allergy too. Symptoms may include hives, facial swelling, asthma (wheezing), shock, skin reddening, rash, blisters. If an allergic reaction occurs, stop use and seek medical help right away. Sexually transmitted diseases (STDs) alert: This product does not protect against HIV/AIDS or other STDs.	
Do not use	
<ul style="list-style-type: none"> ■ if you have or ever had breast cancer ■ if you are already pregnant or think you may be pregnant ■ together with another birth control pill, vaginal ring, patch, implant, injection or an IUD (intra-uterine device) ■ as an emergency contraceptive (morning after pill). This product does not prevent pregnancy when used after unprotected sex ■ if you are male 	
Ask a doctor before use if	
<ul style="list-style-type: none"> ■ you currently have vaginal bleeding between your periods and you have not already talked to a doctor ■ you have liver problems ■ you have or ever had any cancer 	
Ask a doctor or pharmacist before use if	
<ul style="list-style-type: none"> ■ you are taking a prescription drug for seizures, tuberculosis, HIV/AIDS, pulmonary hypertension ■ you are taking a supplement containing St John's Wort (an herbal ingredient) ■ if you have taken ulipristal acetate (an emergency contraceptive, or morning after pill) in the past 5 days 	
See the enclosed leaflet for a detailed list of medicines that may interact with this product. ▶	

LIFT FLAP

Drug Facts (continued)

When using this product

- you are likely to experience changes in your menstrual periods, such as irregular periods, spotting or bleeding between your periods, or you may stop having periods. To prevent pregnancy, keep taking the product.
- you may experience headaches, dizziness, nausea, increased appetite, abdominal pain, cramps or bloating
- **talk to a doctor (but continue taking every day) if**
 - you have repeated vaginal bleeding brought on by sex
 - you start having periods that last more than 8 days or are unusually heavy
 - you start having migraines with aura (headaches that start with changes in vision) or your migraine headaches get worse
- **take a pregnancy test or talk to a doctor if**
 - your period is late after missing any tablets in the last month
 - you have not had a period for 2 months or think you may be pregnant

Seek medical help right away if

- you have sudden or severe persistent pain in your lower belly mostly on one side (you could have an ectopic pregnancy)
- you develop yellowing of your skin or whites of your eyes especially with fever, tiredness, loss of appetite or dark colored urine

Stop use and ask a doctor if

- you become pregnant

Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.

Directions

- take 1 tablet **at the same time every day**
 - this product will work best to prevent pregnancy when taken exactly as directed
 - you can start on any day of the month
 - use a condom (or another barrier method) every time you have sex during the first 2 days of use (48 hours) after you start your first pack of this product, because it takes 2 days for this product to start working

See the enclosed leaflet for more information on how to switch from another contraceptive method. ▶



OTC approval

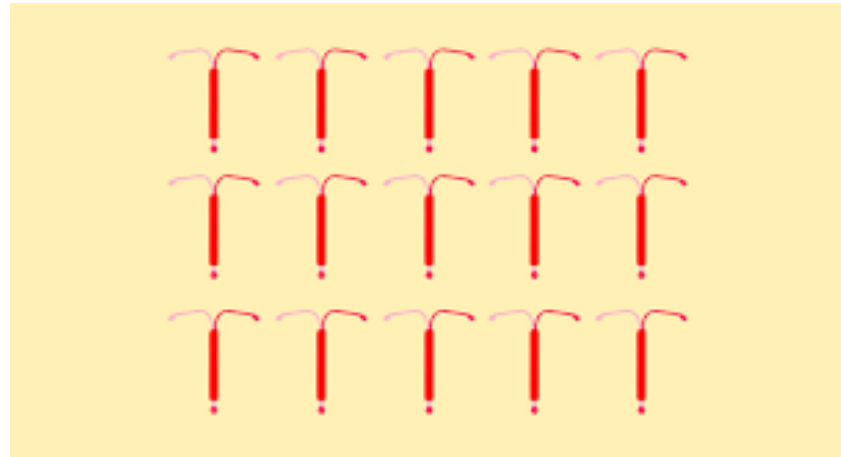


- ACCESS study of >1200 users
 - >99% correctly self-selected if they were appropriate users
 - 93% adherence to daily use
 - No difference in adolescents or individuals with low health literacy
 - 97% used back-up if a pill was missed
- Modeled data suggests potential to reduce up to 34,000 unintended pregnancies per year
- Zena[®] combined oral contraceptive pill seeking approval



Extended use of LARCs

- Offering when appropriate is patient centered
- Avoids barriers to accessing contraceptive care



Extended use of IUDs

- 8-year approval for 52 mg LNG IUD obtained in 2022
 - Year 7 (478 users): 1 ectopic, 1 implantation 4 days post-removal
 - Year 8 (343 users): 0 pregnancies
 - Amenorrhea rates 39% at years 7 & 8
- Mean LNG levels 119 pg/mL at 8.5 years (58.6 pg/mL at 3 years with 13.5 mg LNG IUD)
- Trials are ongoing up to 10 years



Extended use of IUDs

- 52 mg LNG IUD likely effective beyond 8 years to 10 years, can offer with joint decision making due to limited data
- Extended use not recommend for the 19.5 mg or 13.5 mg LNG IUD
- Good data supporting 12 years for 380 mm² copper IUD with some evidence up to 15 years



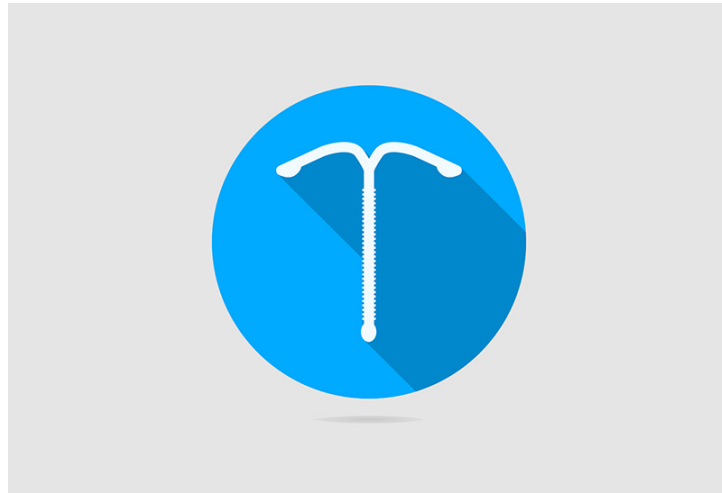
Extended use of ENG implant



- Data for extended use up to 5 years
- Limited data in patients with class 3 obesity (BMI >40)
 - Association between lower ENG levels and higher BMI
- Caution in patients using CYP3A4 inducers
- Nexplanon[®] extension trial is underway looking at up to 5 years to support an updated FDA label

Extended use of LARC

- Safe, effective, and desirable for many patients
- Need to shift thinking away from “expiring” devices
- Pharmacokinetic and prospective trials are ongoing for extended use

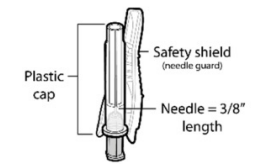


DMPA-SQ

- 104 mg subcutaneous injection every 13-15 weeks
- Self-administration is off-label
- Pre-filled syringe, need rx for other supplies
- Patient education materials are available online (bedsider.org, Reproductive Health Access Project)



Prefilled syringe



Needle with safety shield



DMMPA-SQ



- Long history of use globally
- Sayana Press[®]
 - Created for easy self-administration
 - Not approved or available in the US

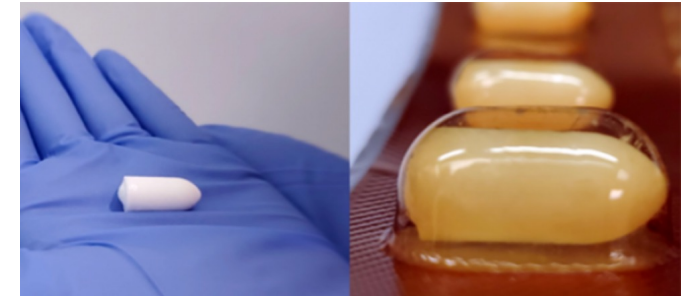
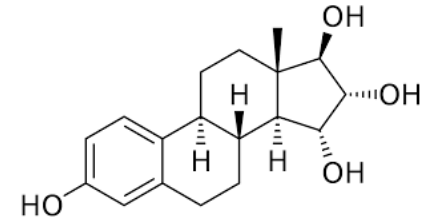
DMPA-SQ

- Increasing data that self-administration is safe, effective, and can improve continuation rates (10-30% higher)
- Renewed interest during COVID-19 pandemic, but availability is still limited



Novel contraceptive methods

- Enhance existing methods
- Use new delivery systems
- Alter hormonal composition
- Use multipurpose prevention technologies (MPT)
- Create novel agents and targets



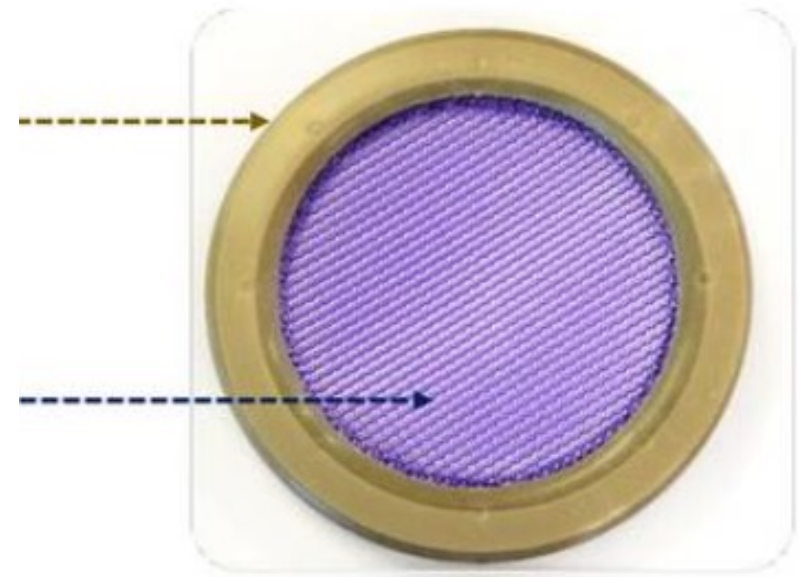
Nonhormonal ring

- Ovaprene®
- “One size fits most” ring inserted at the end of menses and removed at the start of next menses
- Phase 3 contraceptive efficacy trial started



Nonhormonal ring

- Spermistatic, silicone ring
 - Ferrous gluconate – immobilizes sperm
 - Ascorbic acid – increases cervical mucus
 - Polyglycolide – increases vaginal pH
- Physical barrier
 - Non-braided, fluid-permeable mesh barrier



Contraception in development

- IUD with NSAID reservoir
- Microneedle patch
- Monthly pill
- Six-month injectable
- Non-hormonal vaginal capsule to thicken vaginal mucus
- Hormonal contraceptives for sperm-producing people



Current landscape

- 19 million pregnancy-capable individuals live in “contraceptive deserts”
- Detrimental effects on contraceptive access:
 - COVID-19 pandemic
 - Legislative restrictions
- In current environment of restricted access to abortion care, increased access to contraception is vital



Summary

- Understanding the differences in new methods can help guide their use
- While the OTC pill itself is not novel, the approval is important for access
- Increasing data support extended LARC use and self-administration of DMPA-SQ
- New developments are on the horizon!



Questions?

