



From History to Practice: Evidence-Based Contraceptive Management in Military Medicine

September 24, 2026

2:45 – 3:45 p.m. ET

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Sarah Abel is the clinical pharmacist for Operational Medicine at Madigan Army Medical Center. She graduated the PGY-1 residency at MAMC and has been working there for the last 12 years. Dr. Abel specializes in women's health and hormone management working closely with the OB/GYN and Endocrinology departments. She is a Certified Contraceptive Specialty Pharmacist as well as a Menopause Society Certified Practitioner.



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Learning Objectives



At the conclusion of this activity, participants will be able to:

1. Review a brief history of contraception.
2. Describe the role of the provider in contraceptive care.
3. Discuss contraceptives available.
4. Outline current guidelines for contraceptive management
5. Generate plans of care using clinical knowledge for application in future patient scenarios.



Defense Health Agency

ADMINISTRATIVE INSTRUCTION

NUMBER 6025.09

September 27, 2022

DAD-MA

Subject: Walk-in Contraception Services at Military Medical Treatment Facilities

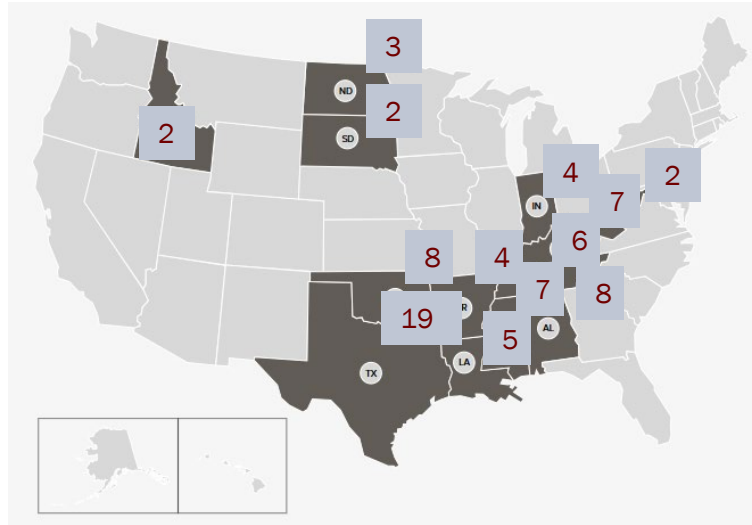
a. Establishes the Defense Health Agency's (DHA) procedures for implementation of walk-in contraception services at all Military Medical Treatment Facilities (MTF), for Active Duty members of the Armed Forces and for eligible beneficiaries of the Military Health System (MHS) on a space available basis. Walk-in contraception services include the provision of same-day, no appointment/no consult/no referral required contraception related care. The goal of walk-in contraception services is to support the overall wellbeing of the force and optimize warrior readiness and pregnancy planning throughout reproductive years. Walk-in contraception services include the provision of full scope, contraception related care for all Active Duty members and for eligible beneficiaries capable of becoming pregnant (e.g., women, transgender males, non-binary individuals, etc.) on a space available basis.



US Abortion Policies and Access After Roe

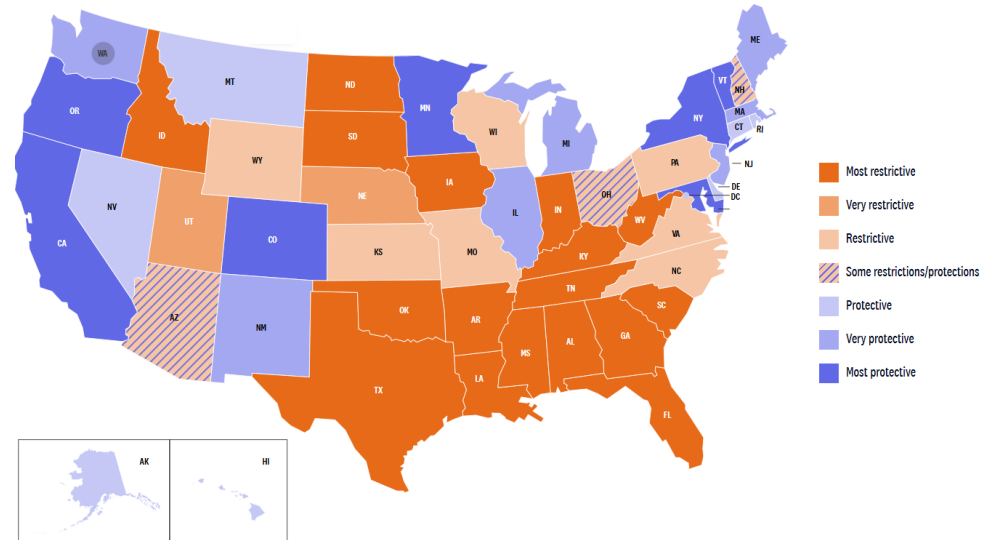


States with Total Abortion Bans



- 77 Military Bases in these states
- ~11-12% of the active-duty service members
- >27,000 female service members

Policies current as of July 1, 2026

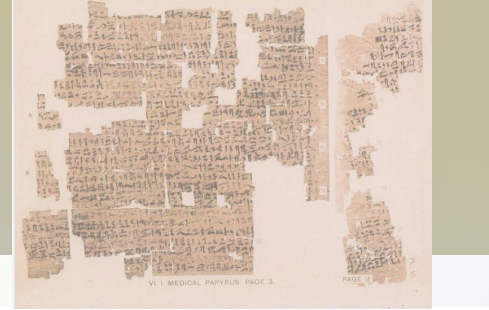


(Guttmacher Institute, 2026)



UNCLASSIFIED

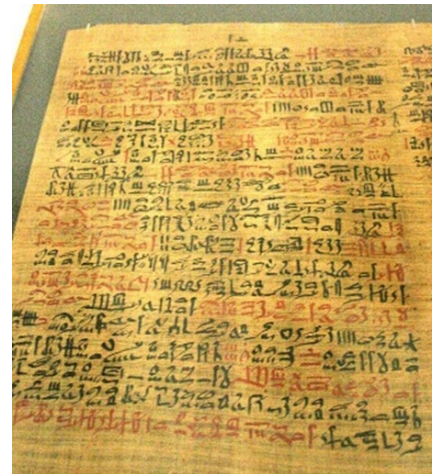
Egypt



1825 BC Kahun Gynecological Papyrus

1550 BC Ebers Papyrus

- The first primary evidence about female medicine and health in an ancient civilization
- Belief that much illness was generated from various conditions of the womb



(<https://cdnintech.com/media/chapter/78710/1512345123/media/F2.png> , n.d.)

(<https://www.britannica.com/plant/acacia>, n.d.)

(https://www.researchgate.net/figure/The-Ebers-Papyrus-left-image-ca-1550-BCE-from-Ancient-Egypt-has-a-prescription-for_fig1_290430960, n.d.)

Egypt (continued)

- Crocodile dung with sour milk – fumigation or pessary?
- Honey sprinkled over the womb with a carbonate salt (primary cleaning agent)
- Paste of dates, acacia, and honey to wool for pessary

(<https://egypttrips.blogspot.com/2009/03/crocodilopolis.html>, n.d.)

(<https://www.tastingtable.com/1216602/the-worlds-oldest-jar-of-honey-is-from-3500-bc/>, n.d.)

(https://www.freepik.com/premium-ai-image/baking-soda-wooden-spoon-light-background-top-view-sodium-carbonate-bicarbonate-food_151110831.htm, n.d.)



Greeks and Romans

1000 BC or earlier

- ***Silphium*** – species of giant fennel, only grew on the coast of North Africa
 - Heart shaped seeds
 - Became extinct due to high demand



(https://commons.wikimedia.org/wiki/File:Cyrene_coin.jpg, n.d.)

(<https://allthatsinteresting.com/silphium>, n.d.)



Greeks and Romans (continued)



Soranus – wrote formal work *Gynaecology*

- White lead mixed with cedar or balsam sap applied to a clump of wool
- Pessaries of pomegranate rind or oak gall
- Drink something cold



Dioscorides

- *De materia medica* - 5 volume work on pharmacology used for the next 1500 years in Europe and Middle East
- Oral contraception: white willow, white poplar, cabbage leaves, ivy, and barrenwort, kidney of a mule



(<https://www.naturalpigments.eu/artist-materials/stack-process-lead-white/>, n.d.)

(<https://www.health.com/pomegranate-benefits-7971294>, n.d.)

(<https://www.thetreecenter.com/what-is-tree-sap/>, n.d.)

(<https://www.davey.com/insect-disease-resource-center/oak-galls/>, n.d.)

Folk Medicine and Magic

- Salt poured in the naval of a female immediately after intercourse
- Testicles of a weasel worn around the thigh
- Jump backwards seven times after sex and drink “blacksmith water”
- Coke used as a douche
- Amulets made of mule earwax
- Necklace with a bone taken from the right side of a black cat

(<https://media.istockphoto.com/id/182370630>, n.d.)

(<https://encrypted-tbn0.gstatic.com/images?>, n.d.)

(<https://encrypted-tbn0.gstatic.com/images?q>, n.d.)



Modernization (1 of 4)

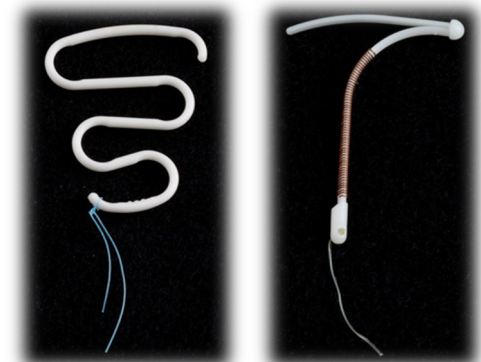
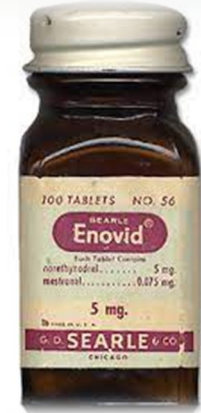
- 1827 – Discovery of the mammalian oocyte
- 1855 – First rubber condom in 1855 – first latex condom 1920
- 1909 – 1st intrauterine device (IUD) made from silkworm guts
- 1916 – 1st birth control clinic in America...shut down nine days later



(<https://artsci.case.edu/dittrick/>, n.d.)

Modernization (2 of 4)

- 1923 – Kyusaku Ogino first to correctly calculate a woman's most fertile and infertile days
- 1960 – Enovid; Food and Drug Administration (FDA) approves the first oral contraception (only married women)
- 1968 – FDA approves IUDs – Lippes Loop and Copper 7
- 1972 – Oral contraception becomes available to all women

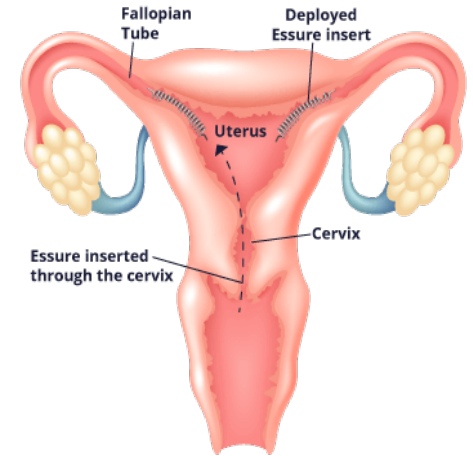


(<https://www.researchgate.net/publication/322845188/>, n.d.)

(<https://www.pbs.org/wgbh/>, n.d.)

Modernization (3 of 4)

- 1980 – FDA approves new low-dose hormonal contraceptive pills and Paragard IUD
- 1992 – FDA approves Depo Provera
- 1998-1999 – FDA approves Preven and Plan B (first emergency contraceptives)
- 2000 – FDA approves Mirena IUD



(<https://www.drugwatch.com/essure/>, n.d.)

Modernization (4 of 4)

- 2001 – FDA approves Ortho Evra patch and NuvaRing
- 2002 – FDA approves Essure
- 2006 – FDA approves Implanon
- 2010 – FDA approves Ella emergency contraception



(https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQV9VZVeSMOSQmDS8_UK_22DQ_S1rzeb9484w&s, n.d.)

(https://www.mmm-online.com/wp-content/uploads/sites/2/2018/07/nuvaring_2_538589.jpg, n.d.)

(<https://www.ella-now.com/wp-content/uploads/sites/82/fly-images/2355/ELLA-USA-850x9999.png>, n.d.)



Methods



(<https://highlandsexualhealth.co.uk/contraception/contraceptive-implant>, n.d.)



Situational Contraception



- Abstinence
- Coitus interruptus (withdrawal)
 - Unreliable, ~22% chance of pregnancy
- Douching after intercourse
 - Not recommended; may even facilitate conception
- Lactation Amenorrhea Method (LAM)
 - Lactation depresses ovarian function
 - Exclusive breastfeeding, in the first six months following birth is ~98% effective



Fertility Awareness



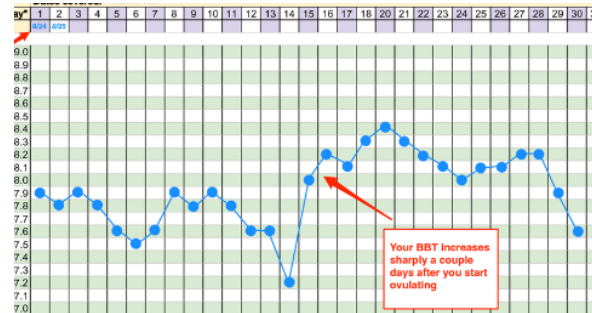
- Also known as “Natural Family Planning”
- Based on understanding ovulation
- Requires periods of abstinence & careful recording of events throughout cycle
- Free, safe and acceptable to all spiritual beliefs
- Approximately 24% of women will experience an unintended pregnancy in the first year (typical use) (only 3-5% with perfect use)



Basal Body Temperature (BBT)



- Woman takes her temperature with BBT every morning upon rising, before any activity
- Temperature increases slightly during ovulation
- Abstain from sexual intercourse for several days before and three days after anticipated ovulation



(<https://www.newkidscenter.org/images/1HT04710/1.png>, n.d.)

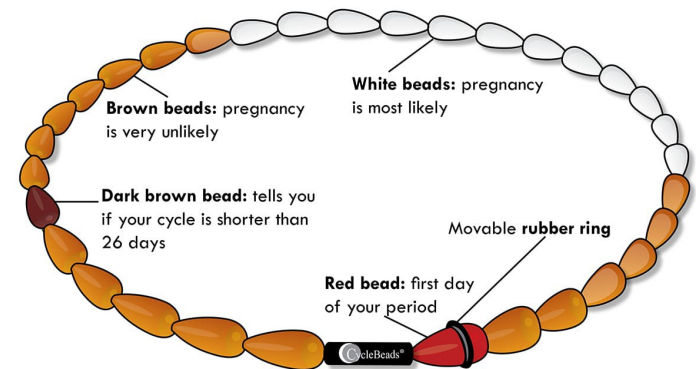
(<https://m.media-amazon.com/images/I/61G0vxMCX5L.jpg>, n.d.)



Calendar Method



- Also Known as the “Rhythm Method”
- Assumes ovulation takes place on day 14
- Assumes sperm is viable for 48-72 hours, ovum for 24 hours
- Record menstrual cycles for 6-8 months
- Use record to identify fertile and infertile periods
- Least reliable of fertility awareness method



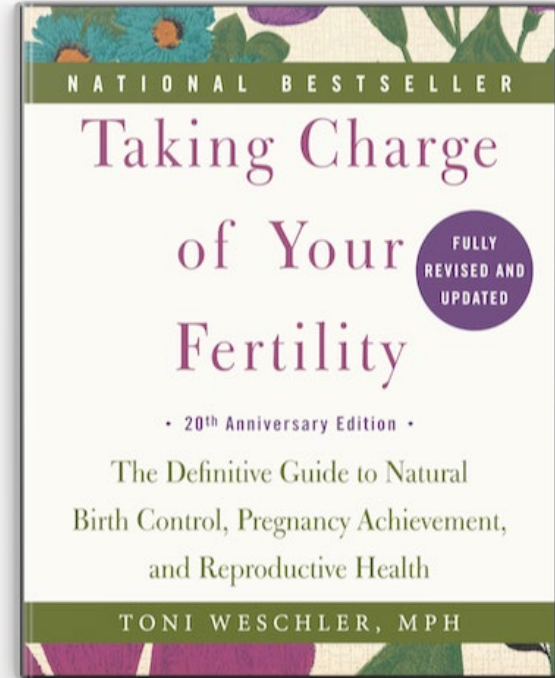


Cervical Mucus Method



- Also known as “Billings” or “Ovulation Method”
- Involves careful assessment of cervical mucus changes
- Ovulation mucus is clearer, more stretchable (spinnbarkeit), more permeable to sperm
- Luteal phase mucus: Thick, sticky, traps sperm
- Women abstain from intercourse for one cycle & assess mucus daily
- Peak day of wetness and clear, stretchable mucus is assumed day of ovulation
- Can be used by women with irregular cycles

No federal endorsement implied.



(Weschler, 2015)



Barrier Methods



- Diaphragms and cervical caps
 - Must be used with spermicide
 - Requires prescription and may require fitting by healthcare provider (Caya is one size fits most)
- Sponge
 - Available over-the-counter (OTC)



(<https://i.insider.com/56afb492dd089575158b4760?width=700>, n.d.)

(https://assets.babycenter.com/ims/2022/03/ScienceSource_SS2224262_wide.jpg, n.d.)

(<https://images.fineartamerica.com/images>, n.d.)



Barrier Methods (continued)



- Female condom
 - Available OTC
 - Offers protection from pregnancy and sexually transmitted infections (STIs)
- Male condom
 - Must be used correctly to be effective
 - Usually latex, but other types are available
 - Offers protection from pregnancy and STIs



(<https://www.1800safety2.com/v/vspfiles/photos/FHFC2-2T.jpg>, n.d.)

(<https://www.malecontraceptive.org/>, n.d.)



Hormonal Contraception

- Two types of contraceptives
 - Estrogen and Progestin (combined)
 - Progestin only
- Estrogen
 - Stabilizes the endometrial lining and provides cycle control
 - Suppresses follicle-stimulating hormone (FSH) release, preventing ovulation
- Progestin
 - Thickens the cervical mucus
 - Induces endometrial atrophy
 - Blocks luteinizing hormone (LH) surge, preventing ovulation



Combined Contraception Contraindications for Use:

- Pregnancy
- <1 month post partum
- Severe cirrhosis
- History of clotting disorder
- Gallbladder disease
- Breast cancer
- Major surgery with prolonged immobilization
- Diabetes with complications
- On seizure medications
- Systemic Lupus
- Viral hepatitis
- On human immunodeficiency virus (HIV) treatment and some antimicrobial treatments
- Undiagnosed abnormal heavy bleeding
- Smoking (esp. if over 35 years old)
- Migraines
- High blood pressure
- Heart disease
- Liver tumors
- Solid organ transplant
- Chronic kidney disease



Combined Contraception Cautions for Use:



-
- Bariatric surgery
 - Seizure disorder
 - Cholestasis related to past combined oral contraceptive pill (COC) use
 - Depression
 - Amenorrhea
 - Hyperlipidemia



Combined Contraception Risks (1 of 3)

- **Venous Thromboembolism (VTE)**
 - Baseline risk in reproductive-aged women: ~2–10 per 10,000 women-years
 - With CHC use: ~7–10 per 10,000 women-years (3–6× increase depending on progestin type)
 - Risk highest in first year of use and with 3rd/4th-generation progestins (desogestrel, gestodene, drospirenone)
 - For context: pregnancy VTE risk is ~5–20 per 10,000 women-years; postpartum risk up to 40–65 per 10,000



Combined Contraception Risks (2 of 3)

- **Arterial Thrombotic Events**
 - Ischemic stroke: baseline ~5 per 100,000 → ~7 per 100,000 with CHC (adjusted RR ~2.0)
 - Myocardial infarction: baseline ~8 per 100,000 → ~18 per 100,000 with CHC (adjusted RR ~2.0)

Clinical Pearl: All VTE/arterial risks are estrogen-mediated → progestin-only methods like the LNG-IUD do NOT carry these risks and are safe alternatives for high-risk patients.



Combined Contraception Risks (3 of 3)



- **Other Serious Risks**
 - Gallbladder disease
 - Hepatic adenomas (rare)
 - Mild blood pressure elevation
 - Possible small increase in breast cancer risk (data inconsistent)



Non-Contraceptive Benefits to Combined Contraception



Cancer Risk Reduction

- **Ovarian cancer:** ~28% risk reduction with ever-use (OR 0.73); >10 years of use associated with ~57% reduction (OR 0.43); protective effect persists ≥ 30 years after cessation
- Protection also demonstrated in BRCA1/2 carriers for ovarian cancer (~50% risk reduction)
- **Endometrial cancer:** ~39% risk reduction with ever-use (OR 0.61); 10 years of use reduces absolute risk from 2.3 to 1.3 per 100 women before age 75; protection persists decades after stopping
- **Colorectal cancer:** ~19% risk reduction (IRR 0.81)



(<https://www.nbcnews.com/health/womens-health/>, n.d.)



Non-Contraceptive Benefits to Combined Contraception (continued)



- Relief of menstrual symptoms (e.g. fewer/less painful cramps, lighter flow)
- Regulation of irregular menses
- Reduced risk of ovarian cysts
- Improvement in menstrual migraines
- Decreased incidence of ectopic pregnancy
- Decreased incidence of benign breast disease & iron deficiency anemia
- Decrease premenstrual syndrome (PMS)/premenstrual dysphoric disorder (PMDD) symptoms
- Reduced symptoms of endometriosis, acne, hirsutism



(<https://www.nbcnews.com/health/womens-health/>, n.d.)



Combined Contraception: Oral Contraception



- Traditional: 21 days of active pill with 7 inactive pills
- Extended cycle: 84 days of active pill and 7 days of inactive pill
- Continuous cycle: all active pill (no hormone-free interval)
- Many formulations
- Monophasic, biphasic, triphasic, quadriphasic
- Traditional vs. Extended cycle vs. Continuous cycle
- Multiple variations of progestin component



<https://mimsshst>



<https://encrypted-tbn0.gstatic.com/images?>



<https://encrypted-tbn0.gstatic.com/images?>



https://somalaser.com/wp-content/uploads/Ortho_tricyclen.jpg



<https://www.lawyersandsettlements.com/images/articles2/Natazia2.jpg>



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<https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQ0Ai4pU9jnlpMrCnYdobxT7B5AyUb3zBpRug&s>



Estrogens



Ethinyl Estradiol (EE)

- High-dose preparations
 - 50 mcg EE
- Average preparations
 - 30-35 mcg EE
- Ultra-low dose preparations
 - 20 mcg EE

Estrogen Valerate

- Synthetic prototype of natural 17 beta-estradiol, being rapidly metabolized to estradiol
- Contained in a quadriphasic formulation – Natazia with dienogest
- 2mg estradiol valerate = 10mcg ethinyl estradiol



Estrogens (continued)



Estetrol

- Estetrol 14.2 mg is a novel estrogen combined with 3-mg drospirenone - Nextstellis
- Estetrol is marketed as a “natural estrogen”
- Minimal impact on the synthesis of coagulation factors, hepatic metabolism, triglycerides, and breast stimulation
- Cannot be translated into an equivalent dose of ethinyl estradiol that applies to all tissues
- Studies have suggested lower venous thromboembolism (VTE) incidence compared to traditional COCs

Mestranol

- Estimated to be half as potent as ethinyl estradiol
- Metabolized to ethinyl estradiol in liver
- 50 mcg equivalent to ~35mcg of EE



Progestin Activity



GENERATION	PROGESTIN	ESTROGENIC	PROGESTATIONAL	ANDROGENIC
First	Norethindrone	++	++	++
	Ethinodiol diacetate	++	+++	+
	Norgestrel	--	+++	+++
	Norethindrone Acetate	++	++	++
Second	Levonorgestrel	--	++++	++++
Third	Norgestimate	--	++	++
	Desogestrel	+/--	++++	++
Fourth	Drospirenone	--	+/-	--

+/-- indicates low to no activity, -- indicates no activity, + indicates activity



Adverse Effects and Management



Estrogen Excess

Nausea, breast tenderness, headaches, cyclic weight gain due to fluid retention, bloating

Decrease estrogen component, consider progestin only methods or IUD

Dysmenorrhea, menorrhagia, uterine fibroid growth

Decrease estrogen component, consider extended cycle or continuous, progestin only or IUD, NSAIDs for dysmenorrhea

Estrogen Deficiency

Vasomotor symptoms: nervousness, decreased libido

Increase estrogen component

Early breakthrough bleeding or spotting (days 1-9)

Increase estrogen component

Absence of withdrawal bleeding (amenorrhea)

Exclude pregnancy, Increase estrogen if menses is desired



Adverse Effects and Management (continued)



Progestin Excess	
Increased appetite, weight gain, bloating, constipation	Decrease progestin component
Acne, oily skin, hirsutism	Decrease progestin component or choose less androgenic progestin
Depression, fatigue, irritability	Decrease progestin component
Progestin Deficiency	
Dysmenorrhea, menorrhagia	Increase progestin, consider extended cycle or continuous regimen, consider progestin only, NSAIDS for dysmenorrhea
Late cycle breakthrough bleeding and spotting	Increase progestin component



The Patches



- Xulane
- Norelgestromin 4.86mg/EE 0.53mg – Releases 0.15mg of norelgestromin and 0.035mg of EE per day
- Comparative trials have shown the patch to be as effective at COC in patients weighing less than 198lbs (90kg)
- Application site reactions most common
- Increased estrogen exposure, unclear if this correlates to an increased risk of VTE
- Applied to the abdomen, buttocks, upper torso or upper arm
- Replaced weekly



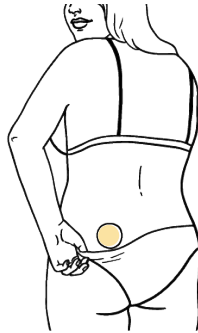
(<https://dailymed.nlm.nih.gov/>, n.d.)



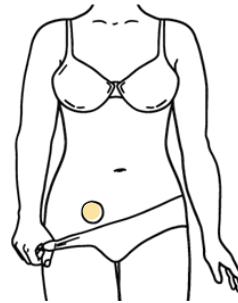
The Patches (continued)



- Twirla Patch
- Levonorgestrel 120mcg/EE 30mcg per day
- Not studied in women with a BMI >25
- Reduction in efficacy in women with BMI ≥ 26
- CONTRAINDICATED in women with BMI ≥ 30



BUTTOCK



ABDOMEN

UPPER TORSO
(EXCLUDING BREASTS)

(<https://www.twirla.com/hcp/>, n.d.)

(<https://www.twirla.com/hcp/patch-placement>, n.d.)



The Rings



- NuvaRing
- Etonogestrel 0.12mg/EE 0.015mg per day
- Comparative trials have shown ring to be as effective at COC
- Traditional: 3 weeks in (21 days), 1 week out (7 days)
- Extended/Continuous: up to 4 weeks (28 days) in, replace with new ring after, no “ring-free” week
- Maybe taken out for up to 3 hours
- If ring has been removed for ≥ 3 hours
 - During weeks 1 and 2 – reinsert ring and use barrier method of contraception for 7 days
 - During week 3 – ring should be discarded, use barrier method
- Refrigeration of unused rings is required



(<https://www.grxstatic.com/>, n.d.)

(<https://adyn.com/wp-content>, n.d.)



The Rings (continued)



- Annovera
- Segesterone/EE 0.15mg/0.013mg per day
- Inserted for three weeks (21 days) continuous days, and then removed for one week
- Used for 13, 21 day in-7 day out cycles
- Maybe used continuously
- Wash ring with mild soap and lukewarm water, pat dry and store in case provided
- Should not be out of the vagina for more than two cumulative hours during a 21-day cycle
- If ring has been removed for ≥ 2 hours back-up contraception should be used until the ring has been in for seven consecutive days

(<https://www.medicaldevice-network.com/>, n.d.)

(<https://cupag.org/images/cu-pag-ring-example-2.jpg>, n.d.)



Progestin Only Pills



- Progestin only pills (POP)
 - Norethindrone 0.35mg daily
 - Drospirenone 4mg – 24 days active
- Do not affect lactation
- Norethindrone – half life: ~8-9 hours
- Drospirenone – half life: ~30 hours
- Often causes unscheduled bleeding
- Not as effective as combination methods
- No identified statistically increased risk of stroke, myocardial infarction, or venous thromboembolism with use of POPs



(<https://cdn.prod.website>, n.d.)

(<https://prescriptiongiant.com/wp-content/>, n.d.)



The OTC Contraceptive



- 7/13/23 – FDA approves first over the counter birth control pill – Opill (norgestrel 0.075mg)
- 98% effective with perfect use



(<https://images.everydayhealth.com/images/>, n.d.)

Addition of OTC Opill to the Uniform Formulary

Category	Recommendations
Formulary Status	Add norgestrel (Opill) to Uniform Formulary pending cost-effective price from manufacturer. Otherwise , will bring back to committee.
Copay	Copay is required under 10 USC 1074g(a)(6)(a) and 32 CFR 199.21(h)(5)(ii) and 32 CFR 199.21(i)(2)(xii); equal to generics (Tier 1 copay)
Prescription?	Prescription is required under 32 CFR 199.21(h)(5)(ii)
Implementation Period	2 weeks after signing of the minutes or after market launch of product (expected early 2024)

Only OTCs used for emergency care are allowed to have copay waived at retail and prescription requirement waived



Medroxyprogesterone Injection (1 of 3)

- Administered once every three months (12 weeks) either in the gluteal or deltoid muscle or subcutaneously in the abdomen or thigh
- With perfect use more than 99% effective, typical use 97% effective
- Injections may inhibit ovulation for up to 14 weeks, but the dose should be repeated in twelve weeks to ensure efficacy
- Women with seizure disorders – may experience fewer seizures



(<https://www.verywellhealth.com/thmb/>, n.d.)



Medroxyprogesterone Injection (2 of 3)

- Menstrual irregularities are the most frequent adverse effect
- Twelve months after start 55% of women report amenorrhea, 68% after two years
- Return to fertility delay
- Median time to conception from first omitted dose is ten months
 - 68% of women ovulating within 12 months
 - 83% of women ovulating within 15 months
 - 93% of women ovulating within 18 months

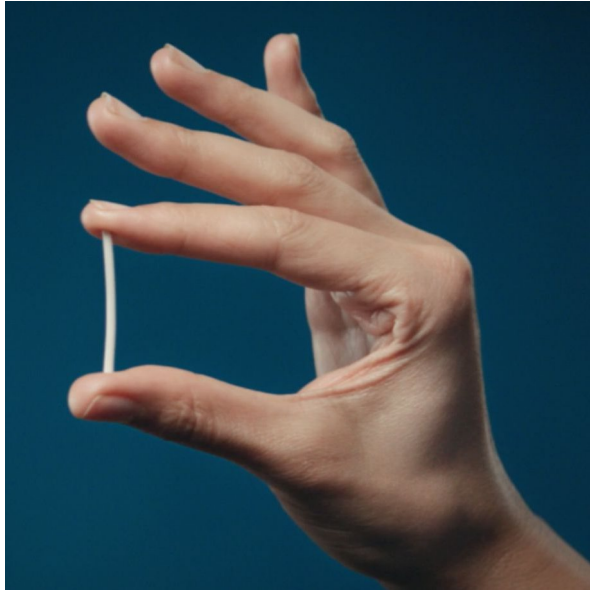


Medroxyprogesterone Injection (3 of 3)

- Weight gain
- Averages 1 kg (2.2lbs) annually and may not resolve until 6 to 8 month after last injection
- Bone loss
- Associated usually with younger patients
- Women over 18-year-old, significant declines in hip and spinal bone mineral density (BMD) when used for >2 years
- Effects appear to be at least partially reversible after discontinuation
- Encourage adequate daily allowances of calcium and vitamin D and exercise daily



Subdermal Implant Nexplanon®



(<https://www.verywellhealth.com/thmb/>, n.d.)

- *Five years (Increased duration of use as of January 16th 2026)*
- Placed in upper arm just under the skin
- Most effective contraception – approaches 100%
- Contraceptive failure of the etonogestrel-releasing (ENG) implant is rare
- Most common adverse effect is irregular bleeding and spotting



IUDs - Progestin



- Placed in the uterus by the provider
- Causes low grade intrauterine inflammation and increased prostaglandin formation – spermicidal activity
- Increased risk of pelvic inflammatory disease (PID) (<5%)
- Rates of ectopic pregnancy with levonorgestrel IUD use are rare (<1%) and lower than the general population



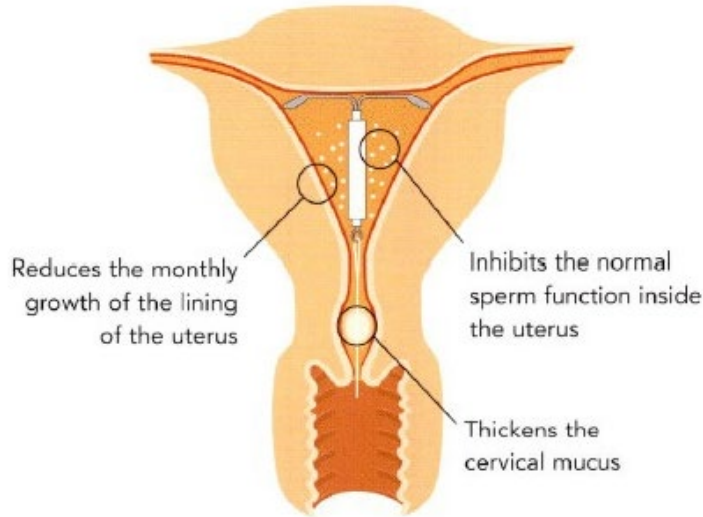
IUDs – Progestin (continued)



Brand	Size of device	Progesterone dose	FDA-Approved duration of use	Data supported duration of use
Mirena	32mm x 32mm	52mg (levo)	8 years	8 years
Liletta	32mm x 32mm	52mg (levo)	8 years	8 years
Kyleena	28mm x 30mm	19.5mg (levo)	5 years	5 years
Skyla	28mm x 30mm	13.5mg (levo)	3 years	3 years
Paragard	32mm x 36mm	Hormone free	10 years	12 years
Miudella	32mm x 30mm	Hormone free	3 years	Studies in progress



Intrauterine Devices IUD - Levonorgestrel



- Three-, five-, and eight-year options
- Over 99.9% effective
- Menses usually become lighter and less frequent with time, with ~20% of patients experiencing amenorrhea at the end of year one
- Other side effects:
 - Acne (7-16%)
 - Abdominal or pelvic pain (<23%)
 - Nausea (<11%)
 - Headache (<16%)

<https://www.evehealth.com.au/articles/mirena-iucd/>, (n.d.)



IUD - Copper



(<https://upload.wikimedia.org/>, n.d.)

- Up to ten years of use
- Menses may be heavier, longer, or more painful, particularly in the first several cycles after insertion
- At three months post insertion:
 - Cramping (63% versus 32%)
 - Increased bleeding volume (71% vs. 12%)
 - Increased bleeding frequency (41% vs. 33%)
- At six months post insertion:
 - Cramping (14% vs. 12%)
 - Increased bleeding volume (19% vs. 8%)
 - Increased bleeding frequency (13% vs. 11%)



IUD – NEW! Copper IUD



- Miudella IUD
- Up to three years of use
- Contains less than half the copper of the Paragard IUD
- Flexible wire frame (nickel and titanium)
- Cumulative three – year Pearl Index was 1.05
- In the first year 8.5% of patients discontinued due to bleeding or pain, fewer patients in years two (5.1%) and three (3.2%)



(<https://www.prnewswire.com/>, n.d.)



Emergency Contraception

- The strongest predictor of levonorgestrel (LNG) emergency contraceptive (EC) failure is body weight, and obese women (BMI 30 or more) have a *three times greater risk* of pregnancy after LNG EC use
- Ulipristal (UPA) remains more effective for women with higher body weights, but its effect also falls to that of placebo when body weight exceeds 88 kg (194 lb.) or at a BMI of 35 kg/m²
- The copper IUD remains the most effective option for EC with a pregnancy rate of <0.1%, and should not lose efficacy in obese women



Resources



-
- U.S. Medical Eligibility Criteria for Contraceptive Use, 2016 (US MEC) (updated April 2020)
 - U.S. Selected Practice Recommendations for Contraceptive Use, 2016 (US SPR) (updated May 2021)
 - WHO Medical eligibility criteria for contraceptive use, 5th Edition, 2015
 - UK Medical Eligibility Criteria for Contraceptive Use, 2016 (UK MEC)



Applications



- DHA's "Decide + Be Ready"



- U.S. Medical Eligibility Criteria for Contraceptive Selected Practice Recommendations (US MEC, SPR)





Resources (continued)



16th EDITION

Managing Contraception

for your pocket

INCLUDING:
CDC UPDATE: 2021 STI guidelines
STEP-BY-STEP INSERTION INSTRUCTIONS: for all IUDs (Copper T, Mirena, Liletta, Kyleena & Skyla)
RECENTLY APPROVED METHODS:
▶ **Annovera:** combined vaginal ring
▶ **Nextellis:** new OC estrogen formulation
▶ **Phelex:** vaginal gel contraceptive
▶ **Slynd:** progestin-only pill
▶ **Twirla:** combined hormonal patch

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www.managingcontraception.com

Contraception pocketcard Set

First Year Pregnancy Rates for Contraception Methods:

Method	Type	Conn.	Method	Type	Conn.
No method	85	85	Condom (m)	Male condom	15-2
Condom (c)	22	24	Condom (f)	Female condom	21
Previous birth	16	3	OC* - Combo or progestin only		9 <1
No previous birth	32	26	Patch		9 <1
Sponge	16	3	Ring		9 <1
No previous birth	26	18	Lactational amenorrhea ¹		5 <1
Spermicide	27	4	Depo-Provera		3 <1
Withdrawal	25	3	Microneedle	Paragard Copper T	0.8
Fertility awareness	25	3	Minisecur	Mirena	0.1
Symptothermal	16	4	Female sterilization		0.1
Twiday	12	3	Implanon		0.1
Standard days	16	4	Vaccination		0.15
Diaphragm with spermicide	16	4	Vaccination		0.15

¹Typical effectiveness requires correct use. Contraceptive pregnancy rates in the first 6 months following birth.
For pregnancy rates for the typical use, see a pregnancy rate for correct use.

Low efficacy method
Medium efficacy method
High efficacy method

Oral Contraceptive Pills (OCPs)

General Information:

- A medical history and blood pressure measurement are necessary prior to prescribing OCPs, a pap smear or pelvic exam is not needed.
- Cyclic OCPs are packaged in 21-day or 28-day cycles. The last 7 pills of most 28-day packs are placebo pills, thought to improve patient compliance (lower discontinuation in clinical trials).
- Effectiveness is the estrogen used in most combination OCPs, modern OCPs use low-dose estrogen (≤ 30 mcg) with most having a dose from 20 to 25 mcg to minimize estrogen-related adverse effects.
- OCPs use a variety of progestins with different properties and levels of androgenic activity.

Types:

- Monophasic:** All hormone pills contain the same progestin or estrogen dose.
- Biphasic:** The hormone pills contain 2 varying doses of progestin or estrogen.
- Triphasic:** The hormone pills contain 3 varying doses of progestin or estrogen.
- Extended-cycle:** Contains active hormone pills that cover longer than the usual 21 days.
- Continuous:** In the US, 2 formulations with 24 days of hormone pills and only 4 days of placebo pills are currently available: Yas and Loestrin 24 FC.
- Extended-cycle:** This approach is intended to minimize contraceptive failures and side effects; Yas may also be effective for the treatment of premenstrual dysphoric disorder.
- Continuous:** Hormone pills have a constant progestin dose but a variable estrogen dose (eg, Loryna).
- Continuous:** Continuous formulations without placebo pills (eg, Loryna) are used to eliminate menses or for the treatment of premenstrual dysphoric disorder or endometriosis.
- Extended-cycle:** Extended-cycle formulations use placebo pills only once every several months (eg, Seasonique: 7 days of placebo q 3 mo or use a very low dose of estrogen instead of placebo every several months (eg, Seasonique: 7 days of 10 mcg estrogen q 3 mo).
- Efficacy:** Efficacy is similar to that of cyclic regimens.
- Menstrual:** Menstrual bleeding is common with continuous regimens in early cycles, but the frequency decreases over time and becomes similar to that of cyclic regimens.
- Menstrual:** Menstrual cramps and premenstrual symptoms appear to be decreased with continuous compared to cyclic regimens.
- Low-dose estrogen:** Contains estrogen in the 20-25 mcg dose range.
- Low-dose estrogen:** Decreased estrogen-related adverse effects.
- Progestin-only:** Also known as "mini pills," contain 39 progestin pills, without estrogen or placebo.
- Progestin-only:** Although multiphase regimens optimize total hormonal content over the course of the month, a clinical advantage over monophasic formulations has not been proven, but do not suppress menses in all women.

Contraindications to Estrogen-Containing Methods - Consider Progestin Methods:

- Migraine headaches with aura
- Early postpartum period, breastfeeding
- Age over 35 years and smoking a 15 cigarettes
- Uncontrolled hypertension with or without vascular disease
- History of thromboembolic disease
- Current, chronic, or previously treated with vascular disease, nephritis, or arthropathological antibodies
- Current, chronic, or previously treated with cardiovascular disease
- Hyperlipidemia
- Diabetes mellitus, diabetes mellitus, or gestational diabetes
- Current, chronic, or previously treated with cardiovascular disease
- Current, chronic, or previously treated with cardiovascular disease

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(<https://www.amazon.com/ManagingContraception-Your-Pocket-2021-2022/dp/1732988447>,

https://www.whitewaterbookstore.com/vendors_product_detail.asp?catalog_group_id=MTUX&catalog_group_name=TWwkaWNoYmBCBc29rcw&catalog_id=28216&catalog_name=TWIzY2VsbGFuZwZ1cw&product_name=Q29ud

No federal endorsement implied.



Under Development



The Contraceptive Technology Innovation Tracker—
CTI Tracker (<https://pipeline.ctiexchange.org/>)

Currently in development/trials

- Smaller copper IUD
- Progestin only vaginal rings
- Biodegradable, non-toxic biopolymers
- Ovaprene
- Levocept
- FibroPlant LNG IUS
- Ormeloxifene – emergency contraceptive
- Vasalgel

**the future
is male birth
control**

(<https://image.spreadshirtmedia.com/>, n.d.)



Key Takeaways



-
- Understanding and being able to discuss all forms of contraception with patients is essential
 - Contraceptive access is a significant issue impacting Service Members' readiness and should be readily available
 - The world of contraception is changing and growing, please stay up to date on all forms of available contraception



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Thank you!

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WORLD CONTRACEPTION DAY

SEP 26

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