Progestin Contraceptives

PILLS · INJECTION · IMPLANT · IUD · EMERGENCY

NCLEX-RN 2026

PHARMACOLOGY · MATERNITY

Definition & Overview

01 / OVERVIEW

- **Progestin-only contraceptives (POCs)** use synthetic progesterone to prevent pregnancy **without estrogen** — making them safer for clients in whom estrogen is contraindicated.
- **Five delivery forms:** oral mini-pill (POP), IM/SQ injection (Depo-Provera), subdermal implant (Nexplanon), levonorgestrel IUD (Mirena, Kyleena, Liletta, Skyla), and emergency contraception (Plan B).
- **Ideal candidates:** breastfeeding mothers, women >35 who smoke, history of DVT/PE, hypertension, migraine with aura, estrogen-sensitive cancers, or post-partum <6 weeks.

Pathophysiology / Mechanism

02 / MOA

STEP 1	→	STEP 2	→	STEP 3	→	STEP 4	→	RESULT
Progestin binds receptors in cervix & uterus		Cervical mucus thickens (sperm barrier)		Endometrium thins (no implantation)		Ovulation suppressed (variable)		Pregnancy prevented (≥99% with implant/IUD)

Key concept: Higher-dose methods (Depo, Nexplanon) reliably suppress ovulation. The mini-pill (POP) primarily works by mucus thickening — which is why **timing within 3 hours daily is critical**.

Side Effects & Warning Signs

03 / S&S

COMMON · EXPECTED

- **Irregular bleeding / spotting** (most common — esp. first 3–6 months)
- Amenorrhea (50% Depo users at 1 year)
- Weight gain (esp. Depo-Provera)
- Mood changes, depression, decreased libido
- Headache, breast tenderness, acne
- Nausea, bloating, fatigue

RED FLAGS · REPORT NOW

- **Severe one-sided abdominal pain** → ectopic pregnancy
- **Heavy/prolonged bleeding** with dizziness
- Calf pain, swelling, chest pain, SOB → DVT/PE
- Severe headache, vision changes, hemiparesis → stroke
- Worsening depression / suicidal ideation
- IUD: missing strings, pelvic pain, fever, foul discharge

FDA BLACK BOX WARNING — DEPO-PROVERA

Prolonged use causes **significant loss of bone mineral density**. Reassess need after 2 years; encourage calcium 1,200 mg + Vitamin D 400–800 IU daily and weight-bearing exercise.

Priority Nursing Interventions

04 / NURSING

- **Assess pregnancy status** before initiating any method (urine hCG).
- **Screen for contraindications:** active breast cancer, undiagnosed vaginal bleeding, severe liver disease, current DVT/PE, pregnancy.
- **Take POP at the SAME time daily** — within a 3-hour window. If late >3 hr: take ASAP + use backup × 48 hr.
- **Depo-Provera:** administer deep IM (gluteal/deltoid) or SQ q11–13 weeks; **do not massage** the site.
- **Nexplanon:** insert subdermal in non-dominant arm during menses or first 5 days of cycle; verify by palpation.
- **IUD:** teach client to **check strings monthly** after menses; assess for expulsion or perforation.
- **Plan B:** most effective <72 hr (works up to 120 hr but efficacy ↓); does NOT terminate established pregnancy.
- Monitor BP, weight, mood at follow-up; reinforce **condom use for STI protection**.

Pharmacology — The Five Methods

05 / PHARM

Norethindrone PO DAILY

CLASS: Progestin-only pill (POP / mini-pill)

MOA: Thickens cervical mucus; thins endometrium

KEY SE: Irregular spotting, breast tenderness

NURSING: ⏰ **SAME time q24h within 3-hr window**. If late: backup × 48 hr. Safe in lactation.

Medroxyprogesterone IM / SQ

BRAND: Depo-Provera (DMPA)

MOA: Suppresses ovulation; thickens mucus

KEY SE: ● Bone density loss, weight gain, delayed return to fertility (up to 10 mo)

NURSING: q11–13 weeks; deep IM (no massage); Ca^{2+} + Vit D supplementation; reassess use after 2 yr.

Etonogestrel Implant SUBDERMAL

BRAND: Nexplanon

MOA: Suppresses ovulation; thickens mucus

KEY SE: Irregular bleeding, weight gain, mood changes

NURSING: Inserted upper inner non-dominant arm; effective **3 years**; palpate to confirm.

Levonorgestrel IUD INTRAUTERINE

BRANDS: Mirena (8 yr) · Liletta (8 yr) · Kyleena (5 yr) · Skyla (3 yr)

MOA: Local progestin → thickens mucus, thins endometrium

KEY SE: Cramping, spotting, expulsion (2–10%), perforation risk (rare)

NURSING: Check strings monthly; report PAINS warning signs.

Levonorgestrel PO × 1

BRAND: Plan B One-Step (emergency contraception)

MOA: Delays/inhibits ovulation if taken pre-ovulation

KEY SE: Nausea, fatigue, menstrual changes

NURSING: Most effective <72 hr (up to 120 hr); OTC; does **NOT** abort an established pregnancy.

Ulipristal Acetate PO Rx

BRAND: Ella (SPRM — progestin-receptor modulator)

MOA: Delays ovulation; effective up to 120 hr

KEY SE: Headache, nausea, abdominal pain

NURSING: Prescription only; more effective than Plan B in obese clients (BMI >30).

NCLEX Test Traps & Distractors

06 / TRAPS

~~"POP can be taken within 12 hours"~~
✔ POP window is 3 HOURS — not 12 like combined OCs. After 3 hr → use backup × 48 hr.

~~"Depo causes permanent infertility"~~
✔ Return to fertility is DELAYED — average 10 months after last injection. Not permanent.

~~"Plan B causes abortion"~~
✔ Plan B prevents/delays OVULATION. It does NOT terminate an established pregnancy.

~~"Estrogen is OK while breastfeeding"~~
✔ Estrogen ↓ milk supply. Choose progestin-only methods in lactating clients.

~~"Massage Depo site to absorb faster"~~
✔ Do NOT massage after Depo IM/SQ — alters absorption rate.

~~"IUD strings should not be felt"~~
✔ Strings SHOULD be palpable monthly. Missing/longer strings = displacement → notify HCP.

~~"Progestin protects against STIs"~~
✔ NO STI protection with any hormonal method. Always teach barrier (condom) use.

~~"Severe abdominal pain = normal cramping"~~
✔ One-sided severe pain = ECTOPIC until proven otherwise. Priority assessment.

Patient Education

07 / TEACH

- **Mini-pill (POP):** set a daily alarm. Take same time every day; if >3 hr late, use condoms × 48 hr.
- **Depo:** return for injection q11–13 weeks. Take Ca^{2+} 1,200 mg + Vit D 400–800 IU; weight-bearing exercise; limit caffeine/tobacco.
- **Nexplanon:** palpate site monthly; replace at 3 yr. Bruising and tenderness × 1 week is normal.
- **IUD:** check strings after each period. Bleeding lightens over time (often amenorrhea by year 1).
- **Plan B:** take ASAP after unprotected sex; if vomiting <2 hr, repeat dose. Backup contraception × 7 days.
- **All methods:** condoms required for STI prevention.
- **Spotting first 3–6 months is normal** — do not discontinue without HCP guidance.
- **Report immediately:** severe abdominal pain, missed period (with prior regular cycles), heavy bleeding, calf pain, chest pain, severe HA, vision changes.

Memory Boosters & Mnemonics

08 / RECALL

PAINS — IUD Warning Signs

- **P** — Period late, abnormal spotting
- **A** — Abdominal pain, dyspareunia
- **I** — Infection (fever, foul discharge)
- **N** — Not feeling well, chills
- **S** — String missing, shorter, or longer

ACHES — Hormonal Red Flags

- **A** — Abdominal pain (severe)
- **C** — Chest pain, SOB → PE
- **H** — Headache (severe), dizziness
- **E** — Eye changes, vision loss
- **S** — Severe leg pain → DVT

"3-Hour Rule" — POP Timing

- POP = **3-hour** window (NOT 12 hr like COCs)
- Late >3 hr → take pill + use **backup × 48 hr**
- Combined OC = 12-hour grace period
- Set a daily phone alarm 📱

Depo "DEPRESS BONES"

- **D**epression risk — screen mood
- **B**one density loss (Black Box)
- **11–13 weeks** — injection interval
- Calcium + Vit D + weight-bearing exercise
- Fertility return delayed up to **10 months**

"PIMP" — The 4 Routine Methods

- **P** — Pill (POP / mini-pill, daily)
- **I** — Injection (Depo, q11–13 wk)
- **M** — iMplant (Nexplanon, 3 yr)
- **P** — uterine Progestin-IUD (3–8 yr)

"Plan B = Backup, NOT abortion"

- Works **BEFORE ovulation** — delays egg release
- Most effective **<72 hr**; up to 120 hr
- Does **NOT** end an existing pregnancy
- OTC, no prescription required