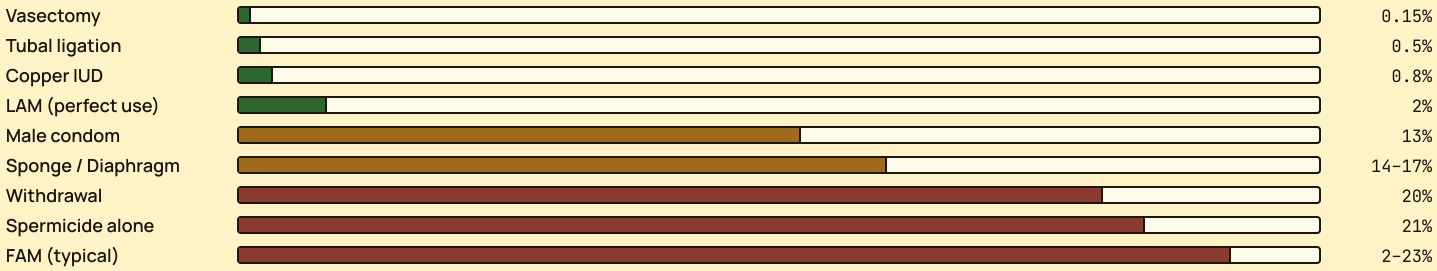
Non-Hormonal Contraceptives

Pregnancy prevention **without** systemic hormones — barrier, copper IUD, fertility awareness, sterilization, & LAM. **Only condoms protect against STIs.**

01 Definition / Overview

- **Non-hormonal methods** prevent pregnancy without altering estrogen/progesterone — preferred when hormones are **contraindicated**: smokers > 35, breast cancer hx, migraine with aura, active VTE, uncontrolled HTN, exclusively breastfeeding (early postpartum).
- **Six categories:** Barrier (condoms, diaphragm, cervical cap, sponge) · Spermicide · Copper IUD (ParaGard) · Fertility Awareness (FAM) · Lactational Amenorrhea (LAM) · Sterilization (tubal ligation, vasectomy).
- **Effectiveness varies dramatically** — sterilization & copper IUD < 1% failure (LARC tier); FAM/withdrawal up to 20–25% with typical use.

Typical-Use Failure Rates (per 100 women / yr)



02 Pathophysiology & Mechanism

BARRIER Physically blocks sperm from cervix	→ SPERMICIDE N-9 disrupts sperm membrane	→ COPPER IUD Cu^{2+} ions toxic to sperm + ova; sterile inflammation
FAM Identify fertile window → abstain	→ LAM Suckling → ↑ prolactin → ↓ GnRH → no ovulation	→ STERILIZATION Tubes / vas surgically occluded

Copper IUD: Cu^{2+} ions create sterile inflammatory response & alter cervical mucus → impair sperm motility & viability → prevent fertilization. Backup: hostile endometrium prevents implantation. Effective **10–12 yrs**.

LAM requires ALL three: `EXCLUSIVE BF` `AMENORRHEIC` `< 6 MO POSTPARTUM`

03 Side Effects & Complications

Common / Expected

- **Copper IUD:** ↑ menses, dysmenorrhea, spotting × 3–6 mo
- **Diaphragm/cap/sponge:** ↑ UTI risk, vaginal irritation
- **Spermicide:** Burning, vaginal/penile irritation
- **Latex condoms:** Latex allergy
- **Post-tubal:** Mild abd discomfort × 24–72 hr

Red-Flag / Severe

- **IUD:** Expulsion, perforation, PID, ectopic if pregnancy occurs
- **Diaphragm/cap/sponge: TSS** if > 24 hr in
- **Spermicide N-9:** Frequent use → ↑ HIV transmission risk
- **Tubal/vasectomy:** Infection, hematoma, regret
- **FAM/LAM:** Unintended pregnancy from miscalc

IUD WARNING SIGNS — "PAINS"

- **P** — Period late, abnormal spotting, pregnancy symptoms
- **A** — Abdominal pain or pain with intercourse
- **I** — Infection: foul/abnormal discharge, fever, chills
- **N** — Not feeling well, malaise
- **S** — Strings missing, longer, or shorter (expulsion / perforation)

04 Priority Nursing Interventions

- `ASSESS` contraindications: PID/STI hx (no IUD), latex allergy (no latex barrier), **Wilson's disease / copper allergy** (no copper IUD), pregnancy (no IUD), unexplained vaginal bleeding.
- `COPPER IUD` Insert **during menses** (cervix open + confirms not pregnant); teach **check strings monthly after period**; expect heavier menses × 3–6 mo.
- `DIAPHRAGM` **Refit** after pregnancy, pelvic surgery, or weight Δ ± 10–15 lb; apply spermicide; insert ≤ 6 hr before sex; **leave in 6 hr after**; remove within 24 hr.
- `CONDOMS` **Water-based lube only** with latex (oil destroys it); pinch tip; new condom every act; check expiration.
- `SPERMICIDE` Insert **10–15 min before** sex; effective ~ 1 hr; reapply each act; no douche × 6 hr after.
- `SPONGE` Wet w/ water before insertion; effective × 24 hr (no reapply); leave in 6 hr after; total ≤ 30 hr.
- `VASECTOMY` **Backup × 3 mo / 20 ejaculations** until semen analysis confirms **azoospermia**.
- `DOCUMENT` Informed consent using **BRAIDED** framework.

Non-Hormonal Contraceptives — pt. 2

Pharmacology · Test traps · Education · Mnemonics & clinical vignette

05 Pharmacology & Devices

Nonoxynol-9 (Spermicide)

FOAM · GEL · FILM · SUPPOSITORY

MOA	Surfactant — disrupts sperm cell membrane on contact
SIDE FX	Vaginal/penile irritation, burning, allergic reaction
NURSING	Insert **10–15 min before** sex; reapply each act; do **NOT** use for HIV prevention (frequent use ↑ HIV transmission via mucosal microabrasions); inactivated by oil-based lubricants.

Copper IUD — ParaGard

Cu^{2+} DEVICE · 10–12 YR

MOA	Cu^{2+} ions impair sperm motility/viability; sterile endometrial inflammation prevents fertilization & implantation
SIDE FX	Heavier & longer menses, dysmenorrhea, spotting × first 3–6 mo
CONTRA	Pregnancy, active PID/STI, Wilson's disease, copper allergy, unexplained uterine bleeding, distorted uterine cavity
NURSING	Verify pregnancy test before insertion; check strings monthly after menses; teach **PAINS**; **most effective EC** when inserted ≤ 5 days post-coitus.

Latex / Polyurethane Condom

ONLY METHOD PREVENTING STIS

MOA	Mechanical barrier preventing sperm + pathogen exchange
NURSING	Use polyurethane / polyisoprene if latex allergy; **never reuse**; check expiration; teach pinch-tip technique to leave reservoir.

06 NCLEX Test Traps ⚠️

- TRAP **Withdrawal is NOT effective** — pre-ejaculate contains sperm. Never the "correct answer" for reliable contraception.
- TRAP **Copper IUD ≠ Mirena/Kyleena** — Mirena releases levonorgestrel (hormonal). Copper IUD is the ONLY non-hormonal IUD.
- TRAP Vasectomy is **not immediate** — backup × 3 mo / 20 ejaculations until azoospermia confirmed.
- TRAP Diaphragm must be **refit** after pregnancy, pelvic surgery, or weight Δ ± 10–15 lb — not "use the same one."
- TRAP Spermicide does **NOT** prevent STIs — frequent N-9 actually **increases HIV risk**.
- TRAP **Petroleum jelly, baby oil, lotion destroy latex condoms** — only water-based or silicone-based lubes.
- TRAP LAM works ONLY if **all three**: exclusively breastfeeding + amenorrheic + < 6 mo postpartum. Miss one → not protected.
- TRAP **Copper IUD = most effective EC** when inserted ≤ 5 days post-coitus (more effective than oral EC pills).
- TRAP Tubal ligation/vasectomy do **NOT** prevent STIs — still need condoms with new partners.
- TRAP Insert IUD **during menses** — confirms not pregnant + cervix more open. Don't pick "any time" if menses option available.

07 Patient Education

- **Choose method** based on lifestyle, future fertility plans, partner cooperation, STI risk, and medical history.
- **Always use a backup method** (condom) for missed doses, insertion errors, or first 7 days of new method. **Use condoms for STI protection** regardless of primary contraception — sterilization, IUD, FAM do NOT protect against HIV/HPV/chlamydia.
- **IUD users:** Report PAINS warning signs immediately; check strings monthly post-menses; expect heavier flow × 3–6 mo.
- **Diaphragm/cap/sponge:** Remove within 24 hr; recognize TSS (fever, rash, vomiting, hypotension); refit after pregnancy or weight change.
- **Sterilization:** Considered **PERMANENT** — counsel on regret possibility, especially < age 30 or low parity.
- **FAM users:** Avoid intercourse OR use barrier during fertile window (~7–10 days mid-cycle); requires regular cycles.
- **Emergency contraception:** Copper IUD inserted ≤ 5 days post-coitus is most effective non-hormonal EC.

08 Memory Boosters

🧠 PAINS — IUD Warning Signs

- **P**eriod late · **A**bdominal pain · **I**nfection · **N**ot feeling well · **S**trings missing

🧠 BRAIDED — Consent Counseling

- **B**enefits · **R**isks · **A**lternatives · **I**nquiries · **D**ecision · **E**xplanation · **D**ocumentation

🧠 Quick-Hit Pattern Recognition

- **"Copper KILLS sperm"** — Cu^{2+} is spermicidal & ovicidal · **"LAM = Lactating, Amenorrheic, < 6 Months"** — miss one → not protected
- **"Vasectomy waits 3 to be free"** — backup × 3 mo until azoospermia · **"Sponge for One Day"** — effective × 24 hr
- **"Diaphragm 6 + 6"** — apply ≤ 6 hr before, leave in ≥ 6 hr after · **"Oil = NO" with latex** — water-based lube only
- **"5 days = Copper EC"** — most effective EC ≤ 5 days post-coitus

📝 WORKED NGN VIGNETTE

Client: A 32-yo G2P2 wants long-term, hormone-free contraception. PMHx: Wilson's disease, migraine with aura. Which method should the nurse anticipate?

Best: Tubal ligation (permanent) or diaphragm + spermicide (reversible barrier).