MATERNITY • INTRAPARTUM

OB EMERGENCY

NCLEX 2026

Prolapsed Umbilical Cord

A true obstetric emergency — minutes matter. Priority = relieve cord compression & restore fetal oxygenation until emergency delivery.

1 Definition & Overview

WHAT & WHY

- The umbilical cord slips **past the presenting fetal part** and descends into the cervix/vagina, usually after rupture of membranes (ROM).
- Presenting part (head, breech) compresses the cord against the maternal pelvis → **rapid fetal hypoxia**.
- **WHY IT MATTERS** Fetal death can occur within minutes — immediate intervention saves the baby.

🔹 Occult (Hidden)
Cord beside presenting part; not visible or palpable. Detected by FHR changes.

🔸 Overt (Visible)
Cord protrudes through cervix or out of vagina. Membranes ruptured.

🔹 Funic (Forelying)
Cord palpable in front of presenting part — membranes still intact.

2 Pathophysiology — Simplified

MECHANISM

STEP 1 ROM with high / unengaged presenting part → **STEP 2** Gush of fluid carries cord down past fetus → **STEP 3** Cord compressed between fetus & pelvis → **STEP 4** ↓ Umbilical blood flow & O_2 delivery → **STEP 5** Fetal hypoxia, bradycardia, acidosis, death

⚠️ **KEY RISK FACTORS:** Malpresentation (breech, transverse) • Polyhydramnios • Preterm / SGA / low birth weight • Unengaged presenting part • PROM or AROM with high station • Multiple gestation • Long umbilical cord • Grand multiparity

3 Signs & Symptoms

ASSESSMENT

🔍 SUBTLE / OCCULT

- **Variable decelerations** — classic "V" or "W" shape on FHR strip
- Sudden FHR change **immediately after ROM**
- Non-reassuring fetal heart tracing
- Cord palpated on vaginal exam (not yet visible)

🚨 OVERT / SEVERE

- RED FLAG **Fetal bradycardia** < 110 bpm > 10 min
- RED FLAG **Prolonged decelerations** (≥ 2 min)
- RED FLAG Visible cord protruding from vagina
- Mother reports *"something between my legs"* after water breaks

4 Priority Nursing Interventions

ABCS • SAFETY

⚡ **GOLDEN RULE: Relieve cord compression FIRST** — every other action flows from this. Do NOT leave the patient. Do NOT replace the cord inside. Call for help while acting.

1	2	3	4	5
CALL	**LIFT**	**POSITION**	**OXYGEN**	**DELIVER**
Call for help / alert provider STAT	Manually elevate presenting part off cord	Knee-chest or Trendelenburg	10 L O_2 via non-rebreather mask	Prep for emergency C-section

A **Airway / Oxygenation:** Apply O_2 8–10 L/min via non-rebreather to mother to maximize fetal O_2.

B **Breathing:** Continuous FHR & maternal VS monitoring. Document FHR q5 min.

C **Circulation:** IV access (large bore) + LR bolus. **STOP oxytocin** if infusing.

M **Manual Elevation:** Gloved hand into vagina, lift fetal part *off* the cord — HOLD until delivery in OR.

P **Position:** Knee-chest, Trendelenburg, or elevate hips with pillows to shift fetus off cord by gravity.

W **Wrap visible cord:** Cover with **sterile saline-soaked gauze**; do NOT push cord back in.

T **Tocolytic (Terbutaline):** May be ordered to halt contractions & reduce cord pressure.

D **Delivery:** Emergency C-section is definitive treatment — notify OR, anesthesia, pediatrics/NICU.

5 Pharmacology Snapshot

KNOW FOR NCLEX

TOCOLYTIC • B_2 AGONIST

Terbutaline (Brethine)

ACTION	Relaxes uterine smooth muscle → **stops contractions**, reduces cord compression.
DOSE	0.25 mg SubQ, may repeat q15–20 min (max 3 doses).
SIDE FX	Maternal tachycardia, tremors, ↓ K^+, pulmonary edema, hyperglycemia.
HOLD IF	Maternal HR > 120 bpm.

DISCONTINUE IMMEDIATELY

Oxytocin (Pitocin)

WHY STOP	Causes contractions → **worsens** cord compression and fetal hypoxia.
ACTION	**STOP infusion immediately**, keep primary IV of LR wide open.
NCLEX CUE	If Q mentions oxytocin running + cord prolapse → *first action is to stop it.*

CRYSTALLOID IV FLUID

Lactated Ringer's / NS

ACTION	Maternal hydration → maintains uteroplacental perfusion.
DOSE	Bolus 500–1000 mL IV to support BP / placental flow.

PRE-OP PROPHYLAXIS

Cefazolin (Ancef)

ACTION	Prophylactic antibiotic before emergency C-section.
CAUTION	Cross-reactivity with PCN allergy — verify allergies rapidly.

6 NCLEX Test Traps ⚠️

DON'T GET FOOLED

- ✖ **Trap:** Choosing "notify provider" as FIRST action. → **First action = relieve cord pressure** (manual lift or knee-chest). Call for help *while* intervening.
- ✖ **Trap:** Pushing a visible cord back into the vagina. → **NEVER** Wrap in sterile saline-soaked gauze instead.
- ✖ **Trap:** Placing mom in semi-Fowler's, high-Fowler's, or supine. → Use **knee-chest** or **Trendelenburg** to shift fetus off cord.
- ✖ **Trap:** Removing the gloved hand once the provider arrives. → **Maintain manual elevation** until the baby is delivered in the OR.
- ✖ **Trap:** Continuing oxytocin while stabilizing. → **STOP oxytocin FIRST**; it intensifies cord compression.
- ✖ **Trap:** Misreading **variable decelerations after ROM** as "normal." → This pattern = suspect cord compression until proven otherwise.
- ✔ **Right priority order:** Relieve pressure → Reposition → Oxygen → Stop oxytocin → Notify & prep for C-section.

7 Patient Education

TEACH-BACK READY

✅ DO — If Water Breaks at Home

- Call 911 **immediately** if you feel or see the cord.
- Get into **knee-chest position** (chest down, hips up) while waiting.
- Keep cord **warm & moist** with a clean wet cloth if visible.
- Remain calm; breathe; do not bear down or push.
- Report any gush of fluid + decreased fetal movement right away.

🚫 DON'T

- **Do NOT push the cord back in.**
- Do NOT stand, walk, or sit upright after water breaks if cord is suspected.
- Do NOT delay calling for help — seconds count.
- Do NOT attempt a car trip alone; wait for EMS.
- Do NOT put anything dry or unsterile on the cord.

- **Prevention awareness:** Women with breech, polyhydramnios, or preterm labor are at higher risk — attend all prenatal visits & deliver in-hospital.
- **Post-delivery:** Emergency C-section is expected — discuss recovery, incision care, breastfeeding support, and NICU possibility if preterm.
- **Emotional support:** Validate fear/grief; offer debrief & counseling after a rapid emergency delivery.

8 Memory Boosters 🧠

MNEMONICS & PATTERNS

🆘 "CORD" — Action Sequence

- **C** — **Call** for help; Compression relieved by manual lift
- **O** — **Oxygen** 10 L non-rebreather to mom
- **R** — **Reposition** — knee-chest or Trendelenburg
- **D** — **Deliver** — prep emergency C-section

🩹 "SAVE BABY" — Full Protocol

- **S** — **Stop** oxytocin immediately
- **A** — **Assess** FHR continuously
- **V** — **Vaginal** exam — lift presenting part
- **E** — **Elevate** hips (knee-chest / Tburg)
- **B** — **Breathe** — O_2 10 L non-rebreather
- **A** — **Alert** OB, OR, anesthesia, NICU
- **B** — **Bolus** IV fluids (LR)
- **Y** — **Yield** to C-section delivery

🎯 Pattern Recognition

ROM + sudden **variable decels** or **bradycardia** = 🧯 *Think cord prolapse first.*
Unengaged head + AROM in Q stem = high risk — watch for this cue.

⏱ Time Priority

Goal: cord-relieved → delivery in < 30 min.
Every minute of compression ↑ risk of hypoxic brain injury & fetal death.