PEDIATRICS · MATERNAL-NEWBORN · CONGENITAL ANOMALY

Cleft Lip & Cleft Palate

Nursing care across the lifespan — from feeding the newborn to protecting the surgical suture line. The two repairs require **opposite positioning**, and the NCLEX loves to test it.

NGN NCLEX 2026 | PEDIATRIC NURSING | POSTOP CARE | HIGH-YIELD ★★★★★

Source transparency: This topic was *not* present in Diane's uploaded notes. Content has been built from standard NCLEX references: **Saunders Comprehensive Review for the NCLEX-RN (Silvestri)**, **ATI RN Nursing Care of Children**, **Lippincott Manual of Nursing Practice — Pediatric**, and **American Cleft Palate-Craniofacial Association (ACPA) Parameters of Care (2024)**.

1 Definition & Overview

WHAT IT IS · WHY IT MATTERS

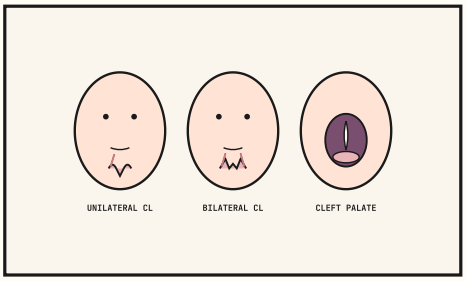
- **Cleft Lip (CL):** congenital split / opening in the upper lip — failure of the *maxillary & median nasal processes* to fuse during **weeks 5–8** of gestation. May be unilateral, bilateral, complete, or incomplete.
- **Cleft Palate (CP):** opening in the roof of the mouth (hard and/or soft palate) — failure of the *palatal shelves* to fuse during **weeks 7–12**.
- Can occur **together or separately**. CL more common in **males**; isolated CP more common in **females**.
- **Why it matters:** creates a direct connection between the oral and nasal cavities → feeding failure, recurrent otitis media, speech delays, dental/orthodontic issues, and parental bonding/body-image stress.

ETIOLOGY — MULTIFACTORIAL

Genetics + environmental triggers: maternal SMOKING, ALCOHOL, FOLIC ACID DEFICIENCY, PHENYTOIN (DILANTIN) & other anticonvulsants, isotretinoin, advanced maternal age, maternal diabetes.

Visual Anatomy

UNILATERAL CL · BILATERAL CL · CP



2 Pathophysiology — Simplified

EMBRYOLOGIC FAILURE OF FUSION

1. Genetic predisposition + teratogen exposure (smoking, ETOH, phenytoin, folic acid deficiency) in **1st trimester**.
2. **Wks 5–8:** maxillary & median nasal processes fail to fuse → **cleft lip** (visible at birth or on prenatal U/S).
3. **Wks 7–12:** palatal shelves fail to fuse in midline → **cleft palate** (hard palate, soft palate, or both).
4. Open communication between **oral & nasal cavities** → infant cannot generate negative pressure (suction) for feeding.
5. Downstream complications: **aspiration, poor weight gain, recurrent otitis media** (eustachian tube dysfunction), **speech delays**, dental malocclusion.

3 Signs & Symptoms

NEWBORN ASSESSMENT · RED FLAGS

Cleft Lip — Visible

- Obvious notch / split in upper lip (unilateral or bilateral)
- Often diagnosed prenatally on ultrasound (≈ 18–22 wks)
- May extend into nostril → flattened nasal contour
- Difficulty maintaining **lip seal** on nipple

Cleft Palate — Hidden Until Inspected

- Detected on **palpation/inspection of palate** at birth — gloved finger sweep is part of every newborn assessment
- Inability to create **suction** → feeding failure
- **Nasal regurgitation** of formula/breast milk
- Excessive air swallowing → frequent burping needed
- Choking, coughing, cyanosis with feeds
- **Recurrent otitis media** (eustachian tube dysfunction)

RED FLAG FINDINGS — ESCALATE

Failure to thrive · poor weight gain · aspiration pneumonia · recurrent ear infections with hearing loss · cyanotic spells during feeding · severe parental distress / impaired bonding.

4 Priority Nursing Interventions

ABC FRAMEWORK · PRE-OP · POST-OP

Preoperative / Feeding the Infant

- **A — Airway:** hold infant **upright (45–90°)** during feeds — prevents milk pooling in nasopharynx & aspiration.
- **B — Breathing:** watch for choking, coughing, cyanosis; pace feeds; allow rest between sucks.
- **C — Circulation/Calories:** assess weight daily — infants tire easily & need **high-calorie** intake.
- Use **special bottles**: Haberman / Mead-Johnson / Pigeon nurser / squeezable bottles with cross-cut nipple.
- Apply the **ESSR method**: **E**nlarge nipple opening · **S**timulate suck · **S**wallow · **R**est.
- **Burp every ½ to 1 oz** — these infants swallow a lot of air.
- Small, frequent feedings (≤ 20–30 min per feed to prevent fatigue / excess calorie burn).
- Promote **parent–infant bonding**: encourage holding, eye contact, naming; address grief over "perfect baby" expectation.

SURGICAL TIMING

CLEFT LIP REPAIR (CHEILOPLASTY):

~ 2–3 months, by the *"Rule of 10s"* → 10 weeks old · 10 lbs · Hgb 10 g/dL. |

CLEFT PALATE REPAIR (PALATOPLASTY):

~ 6–18 months — *before* speech development begins.

Postoperative Care — TWO REPAIRS, OPPOSITE RULES ⚠

After Cleft LIP Repair

- **Position: SUPINE or side-lying.** *NEVER prone* — protects suture line.
- Apply **Logan bow / bar** over upper lip — relieves tension on sutures.
- Soft **elbow restraints** — prevent infant from touching site (release q2h one at a time).
- Clean suture line with **sterile saline** after each feed; apply thin antibiotic ointment if ordered.
- Feed with **special nipple** or syringe with soft rubber tip — NO regular nipple, NO pacifier, NO straws.
- Pain control: **acetaminophen** — a crying infant strains the suture line.
- Hold & cuddle the infant frequently to reduce crying.

After Cleft PALATE Repair

- **Position: PRONE or side-lying** — promotes drainage of secretions & blood from mouth.
- Soft **elbow restraints** — same as CL.
- **NOTHING hard or pointed in mouth:** no straws, suction catheters, tongue blades, spoons, forks, pacifiers, ice chips, hard toys.
- Feed with **cup** or wide-bore syringe with soft tubing; advance to **soft / blenderized diet** as ordered (no chips, popcorn, hard cookies).
- Avoid **acidic foods** (orange juice) — irritate suture line.
- Pain control: scheduled **acetaminophen** ± opioid for first 24 hrs.
- **Monitor airway closely** — post-op edema in the mouth/oropharynx can cause obstruction.

5 Pharmacology

PAIN, INFECTION PREVENTION, AND PRENATAL PREVENTION

DRUG / CLASS	PURPOSE	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Acetaminophen (Tylenol)	First-line postop pain & fever in infants	Hepatotoxicity in overdose	Weight-based dosing (10–15 mg/kg q4–6h); max 5 doses/24h. Teach parents to read concentration label.
Ibuprofen (NSAID)	Pain/inflammation — only if **> 6 months**	GI upset, renal effects, bleeding	Give with food/milk; not for infants < 6 mo; avoid if dehydrated.
Opioids (morphine, fentanyl)	Severe postop pain (first 24 hrs)	Respiratory depression, sedation, constipation	Continuous pulse-ox & respiratory monitoring; have naloxone available.
Topical antibiotic ointment	Suture-line infection prevention (CL)	Local skin irritation, rare allergy	Apply thin layer with cotton-tip after gentle saline cleansing; never rub.
Folic acid 400 mcg PO daily	**PREVENTION** — preconception & 1st trimester	Generally well tolerated	All women of childbearing age; ↑ to 4 mg if prior affected child / on phenytoin.

6 NCLEX Test Traps

WHAT STUDENTS MISS · WRONG VS RIGHT

✕ WRONG	✓ RIGHT
"Position the infant prone after cleft **LIP** repair to keep airway clear."	Position **supine or side-lying** after CL repair — prone puts pressure on the suture line.
✕ WRONG	✓ RIGHT
"Position the infant supine after cleft **PALATE** repair so the head of bed is elevated."	Position **prone or side-lying** after CP repair to allow secretions to drain out of the mouth.
✕ WRONG	✓ RIGHT
"Offer a pacifier to soothe the infant after palate repair."	**NO hard objects in the mouth** — no pacifiers, straws, spoons, suction catheters, tongue blades, or rigid toys.
✕ WRONG	✓ RIGHT
"Apply wrist restraints to keep the infant still."	Apply **soft elbow restraints** only; remove **one at a time q2h** for ROM and skin checks; allow caregiver presence to reduce need.
✕ WRONG	✓ RIGHT
"Give the infant a regular bottle nipple for feeds after surgery."	Use a **syringe with soft rubber tubing, special cleft nipple, or cup** — protects the surgical site.
✕ WRONG	✓ RIGHT
"Use a rigid Yankauer suction in the mouth if the infant chokes after palate repair."	**Avoid suctioning** if at all possible. If absolutely required, use a soft, small-bore catheter — never near the suture line.
✕ WRONG	✓ RIGHT
"Reassure parents the baby will grow out of feeding problems."	Teach **specific feeding techniques** (ESSR, upright position, special bottles) and connect family to **multidisciplinary cleft team**.

7 Patient & Family Education

DISCHARGE TEACHING · LONG-TERM CARE

- ✓ **Feeding:** hold upright, use prescribed special bottle, ESSR method, burp every ounce, ≤ 30-min feeds.
- ✓ **Suture-line care (CL):** clean with sterile saline after every feed and as needed; pat dry; apply ointment if prescribed.
- ✓ **Mouth care (CP):** rinse mouth with water after feeds; offer water after milk to flush the palate.
- ✓ **Elbow restraints:** wear continuously for ~ 10–14 days postop; remove one at a time q2h for skin/ROM.
- ✓ **Hold & cuddle frequently** — minimize crying to reduce suture-line stress and promote bonding.
- ✓ **Avoid:** pacifiers, straws, spoons, ice cream sticks, hard/crunchy food, acidic juices for 7–10 days (CL) or 4–6 weeks (CP) per surgeon.
- ✓ **Monitor for infection:** fever ≥ 38°C, redness/drainage at suture line, foul mouth odor, refusing feeds — call surgeon.
- ✓ **Ear infections:** watch for fever, tugging at ears, fussiness — frequent otitis media is expected; many need **tympanostomy tubes**.
- ✓ **Hearing screens** at recommended intervals; **speech therapy** after palate repair.
- ✓ **Cleft team referral:** plastic surgery, ENT, audiology, speech, dentistry/orthodontics, genetics, social work, psychology.
- ✓ **Future surgeries** are likely (lip revision, palate revision, alveolar bone graft, rhinoplasty in adolescence).
- ✓ **Support resources:** ACPA (acpacares.org), local parent support groups, school IEP planning.

8 Memory Boosters

MNEMONICS · PATTERN RECOGNITION

"ESSR"

Feeding technique for cleft infants:

- **E** Enlarge nipple opening
- **S** Stimulate suck reflex
- **S** Swallow
- **R** Rest between sucks

"Rule of 10s"

When to repair the LIP:

- **10** weeks old
- **10** pounds
- **10** g/dL hemoglobin

"LIP up · PALATE down"

Postop positioning:

L ip = **L** ay on back (supine — face *up*)

P alate = **P** rone (face *down*, lets blood drain)

"CRIES"

Postop infant pain assessment:

- **C** Crying
- **R** Requires O_2
- **I** Increased VS
- **E** Expression
- **S** Sleepless

"No 5 S's in mouth"

After palate repair, keep out:

S traws · **S** poons · **S** uction ·

S ticks · **S** tiff toys (and pacifiers!)

9 NCJMM Clinical Judgment Scenario

NEXT-GEN NCLEX · 6-STEP MEASUREMENT MODEL

SCENARIO

A 3-month-old infant, weight 4.8 kg, hemoglobin 11 g/dL, returns to the pediatric unit at 1400 after cheiloplasty (cleft lip repair). The infant arrives with a Logan bow in place, IV of D5 ¼ NS at maintenance, and soft elbow restraints. At 1500, the infant begins crying vigorously, attempts to bring both hands to the face, and you note a small amount of pink-tinged drainage on the suture line.

STEP 1

Recognize Cues

3 mo, postop CL repair, vigorous crying, hands reaching toward suture line, pink-tinged drainage, Logan bow + soft restraints in place.

STEP 2

Analyze Cues

Crying → tension on suture line → potential dehiscence. Pink drainage = mild bleeding, not frank hemorrhage. Restraints present but infant still reaching face → may need adjustment.

STEP 3

Prioritize Hypotheses

#1 Pain driving crying → suture-line risk.
#2 Hunger/positioning discomfort.
#3 Suture-line infection (less likely at 1 hr postop).

STEP 4

Generate Solutions

Administer scheduled **acetaminophen**; reposition supine with HOB up; hold & cuddle; assess restraint fit; clean suture line per protocol; notify surgeon if bleeding worsens.

STEP 5

Take Action

Give acetaminophen 10 mg/kg PO; pick up & soothe infant in upright/supine hold; verify Logan bow secured; ensure restraints snug but circulation intact; document drainage.

STEP 6

Evaluate Outcomes

Within 30 min: infant quiet/sleeping, no further drainage, suture line intact, restraints atraumatic. If crying persists or drainage increases → escalate to surgeon.