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# PEG Tube *Care*

Percutaneous Endoscopic Gastrostomy — Long-term enteral access for the patient who cannot meet nutritional needs by mouth.

GI / NUTRITION | ENTERAL ACCESS | SAFETY & ASPIRATION | CLINICAL JUDGMENT

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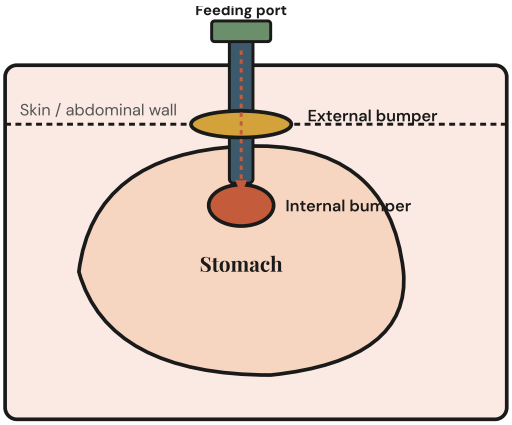
## Definition & Overview

What it is, who it's for, and why it matters on the NCLEX.

**PEG (Percutaneous Endoscopic Gastrostomy)** is a feeding tube placed directly into the stomach through the abdominal wall using endoscopic guidance.

Indicated when a client cannot meet nutritional needs by mouth for **longer than 4–6 weeks** — most commonly with stroke, ALS, advanced dementia, head/neck cancer, or severe dysphagia.

> *"Long-term feeding access that bypasses the mouth and esophagus — lower aspiration risk than NG."*




*Tube enters stomach through abdominal wall*

### 🎯 Indication

Long-term enteral nutrition (>4–6 weeks). Dysphagia, stroke, ALS, dementia, head/neck cancer, failure to thrive.

### ⏱ Duration

Stays in place months to years. Stoma tract **matures in 2–3 weeks** — before that, dislodgement is an emergency.

### Safety Win

Bypasses upper airway → **lower aspiration risk than NG**, but aspiration is still possible (HOB elevation required!).

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# How It's Placed (Step-by-Step)

Endoscopic placement → tract formation → safe feeding access.

Endoscope advanced through mouth into stomach → Light from scope shines through abdominal wall → Small incision made at illuminated site → Tube pulled through; internal bumper anchors inside →

External bumper secured; tract matures over 2–3 weeks

### Internal Bumper

Sits **inside the stomach** against the gastric wall. Holds tube in place from within. Can be a balloon (replaceable) or a solid disk (long-term).

### External Bumper

Sits **against the skin**. Should be snug but *not tight* — leave a dime's width of space to prevent skin breakdown and buried bumper syndrome.

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# Complications: Signs & Symptoms

What to watch for — early vs. late, and the red flags that demand immediate action.

### Early Complications (≤72 hrs)

- Bleeding at insertion site
- Pain and tenderness around stoma
- Aspiration during/after first feed
- Tube migration before tract matures
- **Peritonitis** — rigid abdomen, severe pain, fever RED FLAG

### Late Complications (>72 hrs)

- Site infection — redness, warmth, drainage, fever
- Tube clogging (most common preventable issue)
- Granulation tissue — beefy red bumps around stoma
- Leaking around tube (formula or gastric contents)
- Accidental dislodgement

### Two Red-Flag Emergencies — Memorize These

#### Buried Bumper Syndrome

Internal bumper migrates *into* the gastric/abdominal wall. **Triad:** pain + leaking + inability to flush or instill feed. **Action:** stop feeding, notify provider.

#### Dislodgement (Fresh Tube)

If tube falls out **before 2–3 weeks** (immature tract): cover with sterile dressing, **NPO, do NOT reinsert**, notify provider STAT. Risk of peritoneal placement.

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# Priority Nursing Interventions

Organized by ABC + Safety + NCLEX prioritization.

## ✅ Before Every Feed / Med

- ✓ **Verify placement** — check pH of aspirate (≤5 = gastric), measure external tube length
- ✓ **Elevate HOB 30–45°** — keep elevated 30–60 min after feeding
- ✓ **Check residual** per protocol; hold feed if >250–500 mL (facility-dependent)
- ✓ **Flush 30 mL water** before AND after
- ✓ **Auscultate bowel sounds** — hold if absent

## 🩺 Daily Site & Tube Care

- ✓ Clean site with **mild soap and water**; pat dry
- ✓ Assess for redness, drainage, leaking, granulation
- ✓ **Rotate tube 360°** daily (per protocol) to prevent buried bumper
- ✓ Verify external length marking unchanged
- ✓ Provide **oral care q2–4h** even when NPO

## 🚨 If the Tube Becomes Dislodged

| Tract Age | Action | Why |
|---|---|---|
| **< 2–3 weeks (immature)** | Cover with sterile dressing → NPO → notify provider STAT → **do NOT reinsert** | Tract not formed → reinsertion can perforate peritoneum → peritonitis |
| **> 2–3 weeks (mature)** | Cover with sterile dressing → notify provider → tube replaced within **4 hours** | Mature stoma can close in hours; quick replacement preserves access |

## ⛔ Stop Feeding IMMEDIATELY If...

- Respiratory distress, coughing, choking (aspiration)
- Severe abdominal pain or rigidity (perforation/peritonitis)
- Inability to flush or instill formula (clog or buried bumper)
- New significant leaking around the tube
- Vomiting or significant nausea

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# Medication Administration via PEG

The clogging-prevention rules and the medications that need special handling.

### ✓ Safe to Crush

| | |
|---|---|
| **Type:** | Immediate-release tablets only |
| **Best Form:** | Liquid suspension or elixir whenever available |
| **How:** | Crush to fine powder → mix with 15–30 mL warm water → administer separately |
| **Flush:** | 15–30 mL water *between* each med and after the last |

### ✗ NEVER Crush

| | |
|---|---|
| **Enteric-coated:** | Coating protects stomach / drug — crushing causes irritation or destroys drug |
| **Sustained-release:** | SR / XR / CR / LA — crushing causes sudden full dose dump = TOXICITY |
| **Sublingual:** | Designed for oral mucosa absorption — gastric route inactivates |
| **Capsules with beads:** | Beads themselves may be sustained-release |

## ⏰ Drugs That Need Tube-Feeding Held

| Medication | Hold Tube Feed | Why |
|---|---|---|
| **Phenytoin (Dilantin)** | 1 hr before, 2 hr after | Tube feed binds drug → ↓ levels → seizures |
| **Levothyroxine (Synthroid)** | 1 hr before, 2 hr after | Food/feed dramatically reduces absorption |
| **Fluoroquinolones (cipro)** | 1 hr before, 2 hr after | Calcium/cations in feed chelate drug |
| **Warfarin (Coumadin)** | 1 hr before, 1 hr after | Vitamin K in feed alters INR |

## 🚫 Mixing Rule

Give every medication **separately**. Never combine multiple meds in one syringe — causes precipitation, drug-drug incompatibility, and clogging.

## 💧 The Flush Mantra

*"Flush before, flush between, flush after."*
30 mL water before/after feeds; 15–30 mL between each medication. Use **warm water** to dissolve clogs.

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# NCLEX Test Traps ⚠

Wrong-answer thinking vs. right-answer thinking — what the test writers want you to stumble on.

### 1 Confusing PEG with NG

NG = short-term (days–weeks); PEG = long-term (months–years). If a question says "permanent feeding," "stroke with severe dysphagia," or "ALS" — think PEG.

~~"Place an NG for chronic dysphagia"~~ → PEG is the correct long-term plan

### 2 Reinserting a freshly dislodged tube

If the tube falls out **within the first 2–3 weeks**, reinsertion at the bedside can push the tube into the peritoneum → peritonitis and sepsis.

~~"Reinsert the tube and resume feeding"~~ → Cover with sterile dressing, NPO, notify provider STAT

### 3 Crushing extended-release meds

Crushing SR / XR / CR / enteric-coated tablets dumps the entire dose at once → **toxicity**. Always check the formulation before crushing.

~~"Crush the morphine ER and give via PEG"~~ → Request a liquid or immediate-release form

### 4 Forgetting to elevate HOB

PEG bypasses the upper airway but does *not* eliminate aspiration. HOB **30–45°** during feed and 30–60 min after is non-negotiable. (ABCs!)

~~"Lay the client flat for comfort during feeding"~~ → Maintain semi-Fowler's; aspiration is the priority risk

### 5 Skipping the flush

Clogged tube = #1 preventable complication. Flush **before, between, and after** every med and feed. Mixing meds together is a fast track to a clog.

~~"Mix all 4 morning meds and give at once"~~ → Give each separately with 15–30 mL flush between

### 6 Ignoring the buried bumper triad

Pain + leaking + inability to flush = **buried bumper syndrome**, NOT just a routine site issue. Stop feeding and call the provider.

~~"Apply more pressure to the external bumper"~~ → Loosen if too tight; assess for buried bumper; notify provider

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# Patient & Family Education

What clients and caregivers must know before discharge.

## 🏠 Daily Care Teaching

- ✓ Wash site with mild soap and water; pat dry
- ✓ Rotate tube 360° daily (if facility protocol)
- ✓ Maintain HOB 30–45° during and 30–60 min after feeding
- ✓ Flush with 30 mL water before/after every feed and med
- ✓ Provide oral care 2–3 times a day even when NPO

## 📞 When to Call the Provider

- ✗ Tube falls out or moves significantly
- ✗ Redness, drainage, warmth, or fever (infection)
- ✗ Severe abdominal pain or rigid abdomen
- ✗ Persistent leaking around the tube
- ✗ Inability to flush or pass formula through tube
- ✗ Vomiting, diarrhea, or new respiratory symptoms

## 🥛 Formula & Storage

Refrigerate opened formula cans and discard within 24 hours. Hang time at room temperature is typically **4 hours or less** (closed system: longer per manufacturer). Always check expiration date and inspect for clumping or odor.

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## Memory Boosters & Mnemonics

Quick anchors for exam day.

### P · E · G

- **P** Permanent (long-term) access
- **E** Enteral nutrition route
- **G** Gastrostomy (into the stomach)

### FLUSH

- **F** irst — before feeds and meds
- **L** ast — after feeds and meds
- **U** nder pressure → never force a clog
- **S** eparately — give each med alone
- **H** old feed for select meds (Dilantin, Synthroid)

### "30-45 for 30-60"

HOB elevated **30–45°** during feed and for **30–60 minutes after**. Aspiration prevention rule.

### "Buried Bumper = Big Problem"

Pain + Leaking + No flow → buried bumper triad. Stop, assess, call provider.

### "Fresh = Emergency, Old = Hurry"

Tube out **<2 weeks** = emergency, do NOT reinsert. **>2 weeks** = replace within 4 hours.

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## NCJMM Clinical Judgment Scenario

*The client with a PEG tube placed 5 days ago suddenly reports severe abdominal pain. The nurse cannot flush the tube and notices formula leaking around the stoma site.*

**STEP 1**

### Recognize Cues

Severe pain + inability to flush + leaking around site + tube only 5 days old (immature tract).

**STEP 2**

### Analyze Cues

Triad suggests buried bumper or tube displacement into peritoneum. Risk of peritonitis is high.

**STEP 3**

### Prioritize Hypotheses

#1 priority: peritonitis / displacement (life-threatening). #2: buried bumper. Aspiration secondary.

**STEP 4**

### Generate Solutions

Stop feeding; place NPO; assess vitals and abdomen; cover site with sterile dressing; do NOT reinsert; notify provider STAT.

**STEP 5**

### Take Action

Stop feed → vitals q15min → assess for rigidity, fever, tachycardia → IV access → notify provider and prepare for imaging.

**STEP 6**

### Evaluate Outcomes

Pain controlled, vitals stable, no rigidity, imaging confirms placement (or repositioning achieved). Document thoroughly.

*"The first sip is verification, the last sip is the flush."*

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