★ NGN NCLEX 2026 ★ STUDY SERIES ★

Fecal Occult Blood Test & Colonoscopy

Colorectal Cancer Screening — Procedures, Patient Education & Nursing Care

GASTROINTESTINAL | DIAGNOSTICS | ONCOLOGY SCREENING | PROCEDURAL CARE

01 Definition & Overview

🧪 Fecal Occult Blood Test (FOBT)

A non-invasive screening test that detects **hidden (occult) blood** in stool — a key early sign of colorectal cancer or GI bleeding.

Two main types:

• **gFOBT** (Guaiac-based): chemical reaction with hydrogen peroxide turns paper **blue** if blood is present.

• **FIT** (Fecal Immunochemical Test): uses antibodies to detect human hemoglobin — *fewer dietary restrictions*.

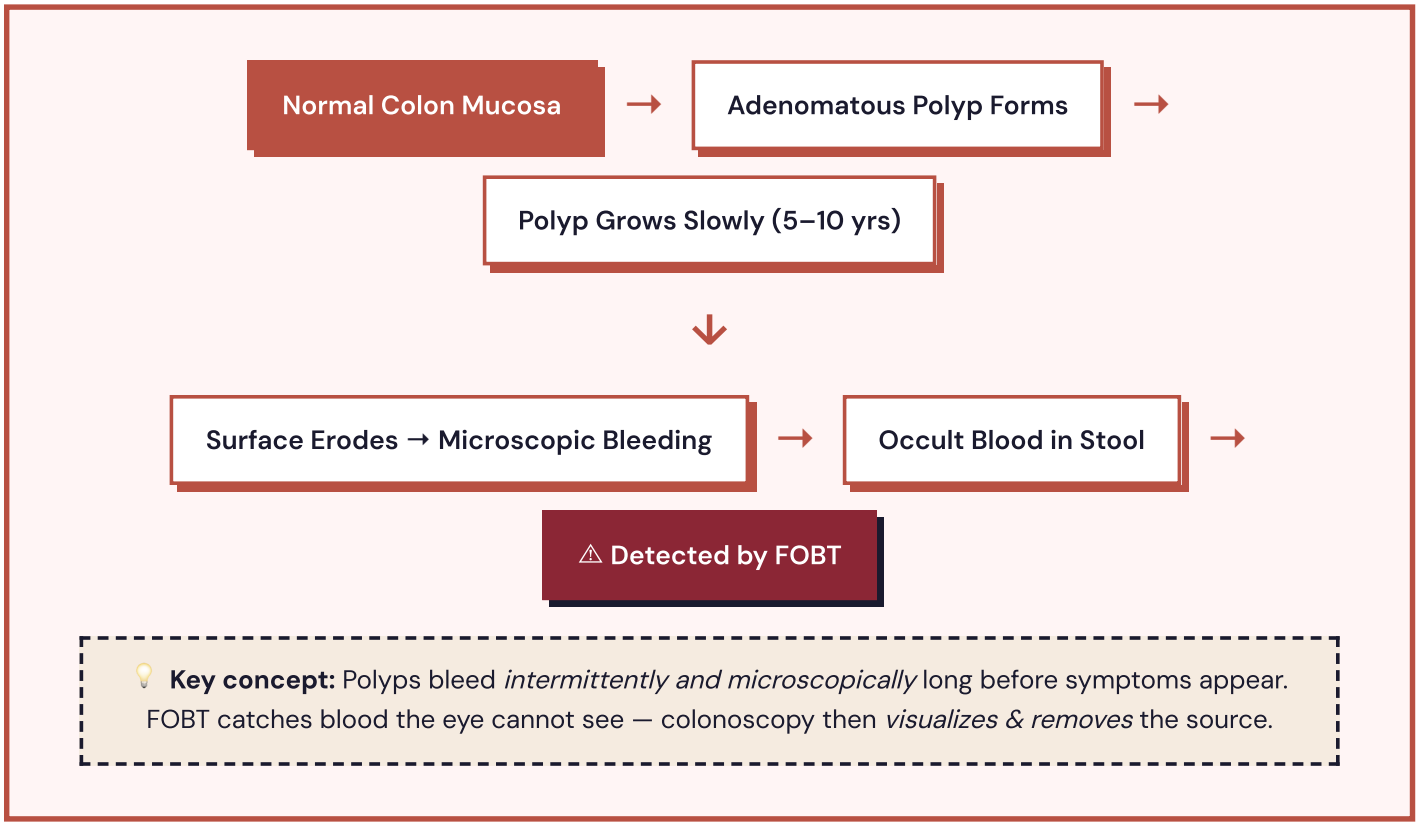
🔬 Colonoscopy

Direct visualization of the entire **colon and rectum** using a flexible fiberoptic endoscope passed through the anus.

Used to: screen for colorectal cancer, evaluate GI bleeding, remove polyps, biopsy lesions, diagnose IBD.

Gold standard for colorectal cancer screening — recommended every **10 years starting age 45** (American Cancer Society).

02 Why We Screen — The Pathway



💡 **Key concept:** Polyps bleed *intermittently and microscopically* long before symptoms appear. FOBT catches blood the eye cannot see — colonoscopy then *visualizes & removes* the source.

03 gFOBT vs FIT — Know the Difference

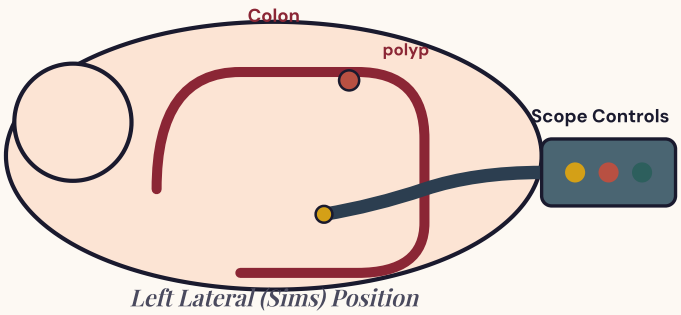
🧪 Guaiac (gFOBT)

- **Mechanism:** Guaiac paper + hydrogen peroxide reagent
- **Positive result:** Paper turns **BLUE**
- **Detects:** Any peroxidase activity (animal & plant)
- **Dietary restrictions:** YES — many foods/drugs interfere
- **Samples needed:** 3 separate bowel movements
- **False positives:** Red meat, raw turnips, horseradish, broccoli, NSAIDs
- **False negatives:** Vitamin C >250 mg/day

🩸 FIT (Immunochemical)

- **Mechanism:** Antibodies bind *human* hemoglobin
- **Positive result:** Antibody reaction detected
- **Detects:** Only human blood from the lower GI tract
- **Dietary restrictions:** NONE typically required
- **Samples needed:** 1–2 samples (varies by brand)
- **False positives:** Far fewer than gFOBT
- **Preferred test:** Higher sensitivity & specificity for CRC

04 Colonoscopy — The Procedure



Left Lateral (Sims) Position

Procedure Snapshot

- **Duration:** 30–60 minutes
- **Sedation:** Conscious (Versed/Fentanyl)
- **Position:** Left lateral / Sims
- **Reaches:** Rectum → cecum
- **Air insufflated**
  (causes post-procedure gas)
- ⚠ **Polyps biopsied / removed**
  via electrocautery snare

Left lateral position with knees flexed allows the colonoscope to follow the natural colonic curves from rectum → sigmoid → cecum.

05 Three Phases of Care

PRE-PROCEDURE

- Verify **signed informed consent** (sedation involved)
- Confirm **NPO 8 hrs** before procedure
- **Clear liquid diet** 1–3 days prior — **NO red or purple liquids** (mimic blood)
- Administer **bowel prep:** PEG (GoLYTELY, MiraLAX) — drink large volumes evening before
- Goal: stool effluent runs **clear or pale yellow**
- Hold **iron** 5–7 days prior (stains stool black)
- Hold **anticoagulants** per provider (warfarin, apixaban)
- Adjust **diabetic meds** (NPO + bowel prep)
- Establish IV access; remove dentures, jewelry
- Baseline VS, allergy check (latex, sedation drugs)
- Arrange a **ride home** — sedation is mandatory

INTRA-PROCEDURE

- Position client in **left lateral / Sims** with knees flexed
- Apply **continuous monitoring**: SpO_2, ECG, BP, end-tidal CO_2
- Administer **conscious sedation**: midazolam (Versed) + fentanyl, or propofol
- Have **reversal agents** at bedside: naloxone (opioid), flumazenil (benzo)
- Suction and emergency airway equipment ready
- Scope is advanced rectum → cecum; **air insufflated** for visualization
- Polyps biopsied or removed via **electrocautery snare**
- Specimens labeled and sent to pathology
- Document: meds given, VS trends, findings, tolerance

POST-PROCEDURE

- **VS every 15 min** until stable, then per protocol
- Monitor **LOC** until fully alert (sedation wear-off)
- Side-lying position to expel gas (insufflation)
- Assess for **RED FLAGS**: severe pain, distention, rigidity, fever, bleeding
- Resume diet **slowly** — clear liquids first when alert & gag reflex returns
- Educate: **mild gas/bloating & small streaks of blood** are expected for 24 hrs
- **NO driving / signing legal docs / heavy lifting** for 24 hrs
- If polypectomy: avoid NSAIDs/aspirin per provider (rebleed risk)
- Provide written discharge instructions & follow-up plan
- Confirm responsible adult will stay 24 hrs

06 Expected Findings vs Complications

✓ Normal / Expected

- ✓ Mild abdominal cramping & gas (from air insufflation)
- ✓ Bloating that resolves with ambulation/passing flatus
- ✓ Small streak of blood with first stool (if biopsy/polypectomy)
- ✓ Drowsiness for several hours from sedation
- ✓ Sore throat (rare — not a typical colonoscopy effect; more for upper GI)
- ✓ Mild fatigue for 24 hrs

🚨 RED FLAG — Report Immediately

- 🚨 **Severe / persistent abdominal pain** → perforation
- 🚨 **Rigid, board-like abdomen** → peritonitis
- 🚨 **Fever >101°F (38.3°C)** → infection / perforation
- 🚨 **Heavy or persistent rectal bleeding** (more than streaks)
- 🚨 Hypotension, tachycardia, pallor → hemorrhage
- 🚨 Shoulder pain → referred pain from peritoneal irritation
- 🚨 Dyspnea, chest pain → aspiration / cardiac event from sedation
- 🚨 Inability to pass flatus + worsening distension

07 Priority Nursing Interventions (ABC Framework)

A Airway

- **POSITION** side-lying post-sedation to prevent aspiration
- **MONITOR** SpO_2 continuously until fully alert
- **HAVE** suction and reversal agents (naloxone, flumazenil) at bedside
- **ASSESS** gag reflex before giving fluids

B Breathing

- **AUSCULTATE** lung sounds — sedation can blunt respiratory drive
- **ENCOURAGE** deep breathing and ambulation to expel insufflated air
- **NOTIFY** provider for RR <10 or O_2 sat <92%
- **APPLY** O_2 as ordered if hypoxia develops

C Circulation

- **MONITOR** VS every 15 min × 4, then q30 min × 2, then per protocol
- **ASSESS** for hemorrhage: BP↓, HR↑, pallor, rectal bleeding
- **MAINTAIN** IV access until discharge
- **NOTIFY** provider for hypotension or sustained tachycardia

SOS Safety / Mobility

- **KEEP** bed in low position with rails up until fully alert
- **ASSIST** with first ambulation (orthostatic risk from sedation/NPO)
- **VERIFY** a responsible adult driver is present
- **REINFORCE** NO driving, legal docs, heavy lifting × 24 hrs
- **DOCUMENT** findings, VS trends, education provided

08 Pharmacology & Diet Interference

gFOBT — Hold or Avoid

7 DAYS BEFORE TEST

Red meat: beef, lamb, liver, processed meats — *false POSITIVE*

Peroxidase foods: raw turnips, horseradish, broccoli, cauliflower, melon, radish — *false POSITIVE*

NSAIDs / aspirin / ibuprofen: can cause GI bleed — *false POSITIVE*

Vitamin C >250 mg/day: blocks the guaiac reaction — *false NEGATIVE*

Anticoagulants: increase bleeding — discuss with provider

Iron supplements: may not affect gFOBT but darken stool — confirm with lab

Avoid testing during menses, with bleeding hemorrhoids, or with hematuria

Bowel Prep & Sedation Drugs

PEG-3350 (GoLYTELY, MiraLAX)

Class: Osmotic laxative — pulls water into bowel

Side effects: nausea, vomiting, abdominal cramping, electrolyte imbalance

Nursing: chill solution; drink 8 oz q10–15 min; monitor for dehydration

Midazolam (Versed): benzodiazepine sedation — reverse with **flumazenil**

Fentanyl: opioid analgesia — reverse with **naloxone**

Propofol (Diprivan): short-acting sedative — *NO reversal agent*; monitor airway closely

09 NCLEX Test Traps ⚠️

❌ TRAP

"Mild post-colonoscopy abdominal pain is always normal."

Students dismiss all post-procedure pain as gas pain.

✅ CORRECT

Mild gas/bloating is expected — but SEVERE, sharp, worsening pain = perforation.

A rigid abdomen, fever, or shoulder pain demands **immediate provider notification**.

❌ TRAP

"Vitamin C causes a false positive on gFOBT."

Students often reverse the directions of dietary interferences.

✅ CORRECT

Vitamin C → false NEGATIVE. Red meat & peroxidase foods → false POSITIVE.

Memory hook: *"C cancels the color"* (blocks the blue reaction).

❌ TRAP

"Use any clear liquid before colonoscopy."

Students think clear = anything you can see through.

✅ CORRECT

NO red, purple, or orange liquids — they mimic blood on visualization.

Approved: water, apple juice, white grape juice, plain broth, lemon Jell-O, black coffee/tea.

❌ TRAP

"Position the patient supine for colonoscopy."

Default to supine because it's the most familiar position.

✅ CORRECT

LEFT LATERAL (Sims) position with knees flexed — follows colonic anatomy.

Same position used for enemas and rectal exams.

❌ TRAP

"Send the client home with their spouse who is sleeping in the waiting room."

Students miss the "responsible driver awake & able to monitor" detail.

✅ CORRECT

A responsible adult must drive AND remain with the client for 24 hrs.

Sedation impairs judgment — no driving, no signing legal documents, no heavy lifting × 24 hrs.

❌ TRAP

"One stool sample is enough for gFOBT."

Students assume one good sample suffices.

✅ CORRECT

gFOBT requires 3 separate samples from 3 different bowel movements.

Polyps bleed intermittently — single samples miss them.

10 Patient & Family Education

🧪 Before gFOBT (Home Collection)

- ✓ Avoid red meat, raw broccoli, turnips, horseradish, melon × 3 days
- ✓ Hold NSAIDs and aspirin × 7 days (per provider)
- ✓ Limit Vitamin C to ≤250 mg/day
- ✓ Do NOT collect during menses or with bleeding hemorrhoids
- ✓ Use 3 separate stool samples from 3 different days
- ✓ Apply a small smear to each labeled card window
- ✓ Avoid contamination with toilet water or urine
- ✓ Mail or return cards within recommended time frame

🔬 Before Colonoscopy (Day Before)

- ✓ Drink ONLY clear liquids — NO red, purple, or orange
- ✓ Begin bowel prep at scheduled time; chill it for tolerance
- ✓ Drink 8 oz every 10–15 minutes; expect frequent watery stools
- ✓ Final goal: stool runs clear/pale yellow — call if not
- ✓ NPO after midnight (or 8 hrs before procedure)
- ✓ Hold iron 5–7 days prior; hold anticoagulants per provider
- ✓ Bring a list of all medications including OTCs and supplements
- ✓ Arrange a driver — you cannot drive yourself

🏠 After Colonoscopy (Discharge Teaching)

- ✓ Expect gas, bloating, mild cramping for 24 hrs — walk to relieve
- ✓ Resume diet slowly: clear liquids → light meal → regular
- ✓ NO driving, legal documents, or heavy lifting × 24 hrs
- ✓ Avoid alcohol × 24 hrs (potentiates sedation)
- ✓ If polyps were removed, avoid NSAIDs/aspirin per provider × 1 week
- ✓ Small streaks of blood with one stool can be normal
- ✓ Call provider for: severe pain, fever, heavy bleeding, dizziness, fainting

- ✓ Follow up for biopsy results in 7–10 days

🎯 Screening Schedule (ACS Guidelines)

- ✓ Start screening at age **45** for average-risk adults
- ✓ Earlier (age 40 or 10 yrs before youngest affected relative) for family history
- ✓ **Colonoscopy:** every 10 years if normal
- ✓ **FIT:** annually
- ✓ **gFOBT:** annually
- ✓ **Stool DNA test (Cologuard):** every 3 years
- ✓ **Flexible sigmoidoscopy:** every 5 years
- ✓ Continue screening until age 75 (individualized 76–85)

11 Memory Boosters & Mnemonics

"BLOOD" — gFOBT Avoid List

- **B** **Beef & red meats**(false +)
- **L** **Lots of Vitamin C**>250 mg (false −)
- **O** **Over-the-counter**NSAIDs/aspirin (false +)
- **O** **Other peroxidase foods**— turnips, horseradish, broccoli (false +)
- **D** **During menses**or with hemorrhoids — defer test

"PREP" — Colonoscopy Prep

- **P** **Purgative**bowel prep (PEG)
- **R** **Restrict**red/purple/orange liquids
- **E** **Empty**goal: clear/yellow effluent
- **P** **Patient stays NPO**8 hrs + arranges ride

"STOP" — Post-Procedure Red Flags

- **S** **Severe**abdominal pain
- **T** **Temperature**>101°F
- **O** **Ongoing/heavy**rectal bleeding
- **P** **Pallor / Pulse**rising / Pressure dropping

Color Cues

- **B** **BLUE**= positive gFOBT
- **R** **RED meat**= false positive

Y **YELLOW/clear**= good prep effluent

N **NO red/purple**liquids before scope

12 NCJMM Clinical Judgment Scenario

> ***Scenario:*** *A 62-year-old client returns to the post-procedure unit 90 minutes after a screening colonoscopy with polypectomy. The nurse notes the client is increasingly restless, reporting severe, sharp abdominal pain rated 9/10 that is not relieved by ambulation. Vital signs: BP 92/54, HR 118, RR 24, T 100.8°F. Abdomen is firm and distended with absent bowel sounds in all quadrants. The client's spouse states, "He was joking with me 30 minutes ago — now he won't stop holding his stomach."*

STEP 1

Recognize Cues

Severe pain (9/10), hypotension, tachycardia, fever, rigid distended abdomen, absent bowel sounds, rapid deterioration after polypectomy.

STEP 2

Analyze Cues

Cluster suggests bowel **perforation** with developing peritonitis — a known complication of polypectomy. Hemorrhage also possible (BP↓ HR↑).

STEP 3

Prioritize Hypotheses

Highest priority: bowel perforation with peritonitis → risk of sepsis & shock. Time-sensitive surgical emergency.

STEP 4

Generate Solutions

Notify provider STAT, keep NPO, IV fluids wide open, prepare for imaging (abd X-ray/CT), type & cross, broad-spectrum antibiotics, prep for possible OR.

STEP 5

Take Actions

Call provider/Rapid Response. Maintain NPO. Bolus IV NS as ordered. Continuous VS monitoring. Insert second IV. Position semi-Fowler's. Reassure family.

STEP 6

Evaluate Outcomes

Recheck VS q15 min. Pain trending? BP stabilizing with fluids? Bowel sounds returning? Imaging confirms or rules out perforation? Document trends & response to interventions.

✦ ✦ ✦

Diane's NGN NCLEX 2026 Study Series

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