NGN NCLEX 2026 · MUSCULOSKELETAL · GERIATRIC TRAUMA

Hip Fractures
Nursing Care & Priorities

A high-yield clinical guide for the older adult with a fractured proximal femur — pre-op stabilization, post-op precautions, and complication prevention.

MUSCULOSKELETAL | ADULT HEALTH | SAFETY & MOBILITY | HIGH-YIELD NCLEX

Source note: *Hip fracture content was not present in the uploaded study notes for this library. The clinical information below is drawn from standard NGN NCLEX 2026 references (Saunders, ATI, Lippincott) and current orthopedic nursing standards.*

1

SECTION ONE

Definition & Overview

- **Hip fracture** = a break in the proximal femur — femoral neck, intertrochanteric region, or subtrochanteric region.
- Most common in **adults > 65**, women, and clients with **osteoporosis**; usually follows a low-energy fall.
- A true **geriatric emergency** — mortality reaches 20–30% within one year due to immobility, VTE, pneumonia, and pressure injuries.
- Surgical repair (ORIF, hemiarthroplasty, or total hip arthroplasty) is the standard of care, ideally within **24–48 hours**.

RED FLAG Suspect a hip fracture in any older adult with a fall plus hip/groin pain and inability to bear weight — even if the x-ray is initially equivocal.

TWO BIG BUCKETS

Fracture Types

INTRACAPSULAR

Femoral Neck

Inside joint capsule. **High AVN risk** — blood supply to femoral head disrupted. Treated with hemi- or total hip arthroplasty.

EXTRACAPSULAR

Intertrochanteric

Outside capsule, between greater & lesser trochanters. Better blood supply. Treated with **ORIF + compression hip screw**.

EXTRACAPSULAR

Subtrochanteric

Below the lesser trochanter. Often from high-energy trauma or pathologic fracture. ORIF with intramedullary nail.

2

SECTION TWO

Pathophysiology — How It Happens

Risk Factors
Osteoporosis · Age
Female · Falls · Vit D ↓

→

Fall / Trauma
Low-energy in elderly
Twist or direct impact

→

Proximal Femur Break
Disrupts cortex + marrow
Hemorrhage into thigh

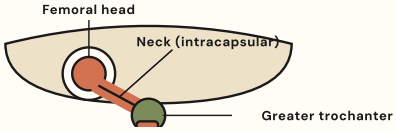
→

Compromise
↓ Blood supply to head
Up to 1–2 L blood loss

↓

Downstream Risks
Avascular Necrosis · DVT/PE
Fat Embolism · Hypovolemia
Immobility complications

Proximal Femur Anatomy



3

SECTION THREE

Signs & Symptoms

⚡ Classic Presentation Triad

- **Shortening** of the affected leg (muscle spasm pulls bone fragments overlapping).
- **External rotation** of the affected leg (toes point outward toward the wall).
- **Adduction** of the affected leg — pulled toward midline.

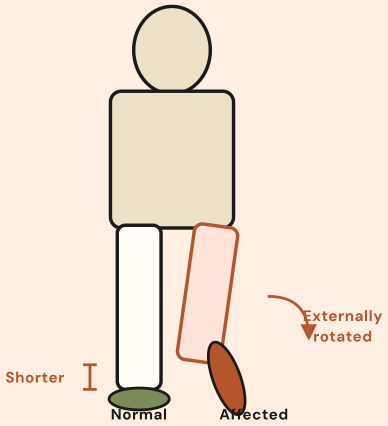
Other Cues to Recognize

- **Severe pain** in hip, groin, or referred to medial knee.
- **Inability to bear weight** or ambulate.
- Bruising, swelling, or tenderness over the greater trochanter.
- Muscle spasm of the thigh.
- Older adult may present with only *vague hip pain* and reluctance to walk — keep a high index of suspicion.

RED FLAGS **Fat embolism syndrome** (24–72 hr post-fracture): petechiae on chest/axilla, dyspnea, hypoxia, confusion.
DVT/PE: calf pain/swelling, sudden chest pain, tachycardia.
Hypovolemic shock: tachycardia, hypotension — pelvic/femur fractures can hide 1–2 L of blood loss in the thigh.

VISUAL

Hallmark Leg Position



*Affected leg = **Shortened** + **Externally rotated** + **Adducted***

4

SECTION FOUR

Priority Nursing Interventions — Pre-op & Post-op

PRE-OPERATIVE

- ✓ **Assess ABCs** and vital signs — rule out shock from blood loss.
- ✓ **Neurovascular checks q1–2h** on affected leg — the 6 Ps (pain, pallor, pulses, paresthesia, paralysis, poikilothermia).
- ✓ **Immobilize** the limb; **Buck's traction** may be applied (5–10 lb) for comfort & spasm reduction.
- ✓ **Pain management** — IV opioids; multimodal preferred (avoid IM in elderly).
- ✓ **NPO** for surgery; type & crossmatch blood.
- ✓ Begin **VTE prophylaxis** (enoxaparin or heparin) per protocol.
- ✓ Skin assessment — pressure injury prevention; pad bony prominences, reposition q2h.
- ✓ Voiding history & bowel routine — anticipate constipation/retention.

POST-OPERATIVE

- ✓ **Maintain hip in neutral abduction** with abduction pillow between legs.
- ✓ **Continue neurovascular & pain checks**; monitor incision for bleeding/infection.
- ✓ **Early ambulation** with PT within 24 hours — reduces VTE, pneumonia, pressure injuries.
- ✓ **Incentive spirometry** q1–2h while awake to prevent atelectasis/pneumonia.
- ✓ **VTE prophylaxis** continued; sequential compression devices on unaffected leg.
- ✓ **Drain care** (Hemovac/Jackson-Pratt) — empty & record output.
- ✓ **Bowel/bladder** — stool softeners, prevent retention.
- ✓ **Nutrition** — high-protein, calcium, vitamin D to support healing.
- ✓ **Monitor for complications:** hemorrhage, infection, DVT/PE, fat embolism, hip dislocation, AVN.

⚠ Posterior Hip Precautions — First 4–6 Weeks (most THA approaches)

- ✗ **Do NOT flex the hip > 90°** — no bending forward to tie shoes, no low chairs, raised toilet seat required.
- ✗ **Do NOT cross legs** at knees or ankles — adduction past midline can dislocate.
- ✗ **Do NOT internally rotate** the hip — keep toes pointing forward or slightly out.
- ✓ **Use abduction pillow** when in bed and when turning to the unaffected side.
- ✓ **Sit in high, firm chairs with armrests;** elevated toilet seat; reach with grabber for low items.

PRIORITY ACTION **Suspected hip dislocation post-op** (severe pain, shortening, internal rotation, "popping" sensation) → **STOP movement, keep flat, notify surgeon immediately.** Do not attempt to reposition the leg.

5

SECTION FIVE

Pharmacology Quick-Reference

DRUG / CLASS	PURPOSE	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Morphine / Hydromorphone Opioid analgesics	Severe acute pain pre- & post-op	Respiratory depression, hypotension, constipation, sedation, urinary retention	Assess RR & sedation before each dose; have **naloxone** available; add scheduled stool softeners; start low & go slow in elderly.
Acetaminophen Non-opioid analgesic	Baseline pain control, opioid-sparing	Hepatotoxicity (dose-dependent)	Max **3 g/day** in older adults; check all combination products to avoid double-dosing.
Enoxaparin (Lovenox) LMWH	VTE prophylaxis post-hip surgery (continued 10–35 days)	Bleeding, thrombocytopenia (HIT), injection-site bruising	Give SQ in abdomen, **do not aspirate or rub site**; monitor CBC/platelets; teach bleeding precautions.
Heparin (UFH) Anticoagulant	VTE prophylaxis (alt.)	Bleeding, HIT	Monitor **aPTT**; antidote = **protamine sulfate**; check platelets.
Warfarin (Coumadin) Vitamin K antagonist	Long-term VTE prevention if indicated	Bleeding	Monitor **PT/INR** (goal 2–3); antidote = **vitamin K**; teach consistent leafy-green intake.
Cefazolin (Ancef) 1st-gen cephalosporin	Surgical antibiotic prophylaxis	GI upset, rash, possible penicillin cross-reactivity	Give within **60 min before incision**; assess for penicillin allergy first.
Docusate (Colace) Stool softener	Prevent constipation from opioids/immobility	Mild cramping	Start with opioid; encourage fluids & fiber.
Alendronate (Fosamax) Bisphosphonate	Treat underlying osteoporosis (long-term)	Esophagitis, jaw osteonecrosis, atypical femur fractures	Take **first thing AM, with full glass of water, stay upright 30 min, NPO 30 min**.
Calcium + Vitamin D	Bone healing & osteoporosis prevention	Hypercalcemia, constipation, kidney stones	Take with food (calcium carbonate); separate from iron, levothyroxine, & tetracyclines.

6

SECTION SIX

NCLEX Test Traps ⚠

✗ Common Wrong Choices

- ✗ Placing a pillow **under the knee** of the affected leg — causes contracture.
- ✗ Allowing the client to **cross legs** while sitting up in chair.
- ✗ Using a **low recliner** or standard toilet — hip flexion exceeds 90°.
- ✗ Letting Buck's traction **weights rest on the floor** or the bed.
- ✗ Choosing "reposition the leg" when dislocation is suspected.
- ✗ Massaging a swollen, painful calf (possible DVT).
- ✗ Holding all anticoagulants because the client is "older."

✓ The Right Move

- ✓ Place pillow **between the legs** (abduction) — never under the knee.
- ✓ Teach the client to **keep legs uncrossed at all times**.
- ✓ Use **raised toilet seat & high firm chair with armrests**.
- ✓ Weights must **hang freely**; do not lift, remove, or adjust without an order.
- ✓ Dislocation suspected → **stop, keep flat, call surgeon**.
- ✓ Calf pain/swelling → **assess, do not massage**; notify HCP, anticipate Doppler.
- ✓ VTE prophylaxis is the standard of care; assess bleeding risk, don't withhold automatically.

PRIORITY PEARL When the question stem says *"first action"* after surgery and the leg is suddenly shortened & internally rotated → think **dislocation**: keep client flat, do not move the leg, notify the surgeon. When it says *"first sign"* within 24–72 hours of a long-bone fracture → think **fat embolism**: petechiae, dyspnea, altered mental status.

7

SECTION SEVEN

Patient & Family Education

- **Follow hip precautions for 4–6 weeks** (sometimes longer): no hip flexion > 90°, no crossing legs, no internal rotation.
- Use a **walker or crutches** as ordered; advance the affected leg first.
- Sit in **high firm chairs with armrests**; use a **raised toilet seat**; place a pillow on the seat if needed.
- Sleep with an **abduction pillow** between the knees; do not turn onto the operative side without HCP clearance.
- Wear **non-skid shoes**; remove throw rugs; install grab bars & nightlights; keep pathways clear.
- **Take anticoagulants exactly as prescribed** — soft toothbrush, electric razor, report bleeding/black stools.
- Eat a **high-protein, calcium- & vitamin-D-rich diet**; stay hydrated; manage constipation.
- Resume sexual activity, driving, and stair-climbing only when cleared by the surgeon.
- **Report to HCP:** increased pain, fever > 100.4 °F (38 °C), redness/drainage at incision, calf pain or swelling, sudden chest pain or dyspnea, popping/shortening of the leg.

8

SECTION EIGHT

Memory Boosters & Mnemonics

"S.E.A." — Affected leg position

S hortened
E xternally rotated
A dducted

"6 P's" — Neurovascular check

P ain
P allor
P ulses
P aresthesia
P aralysis
P oikilothermia (coolness)

Fat Embolism Triad

1. Hypoxia / dyspnea
2. Petechiae (chest, axilla, conjunctiva)
3. Mental status changes

*Appears within **24–72 hours** after long-bone fracture.*

"Don't Cross 90"

- Don't **C** ross legs
- Don't bend > **90°**
- Don't **I** nternally rotate

9

SECTION NINE

NCJMM Clinical Judgment Scenario

Scenario: *Mrs. R, a 78-year-old woman with osteoporosis and hypertension, is admitted to the ED after a fall in her bathroom. She reports severe right hip and groin pain and is unable to bear weight. On assessment, her right leg appears shortened and externally rotated, with bruising over the greater trochanter. VS: BP 102/64, HR 108, RR 22, SpO_2 95% on RA, T 36.8 °C, pain 9/10. Pedal pulses are present bilaterally; right foot is cool and pale compared to the left.*

STEP 1

Recognize Cues

Right leg **shortened, externally rotated**, severe pain, inability to bear weight, bruising over trochanter; HR 108, BP 102/64 (relative hypotension), right foot cool & pale, age + osteoporosis + fall.

STEP 2

Analyze Cues

Cues are classic for a **right hip fracture** (likely intertrochanteric or femoral neck). Tachycardia + borderline BP + cool/pale foot suggest **occult blood loss** into the thigh and possible **neurovascular compromise**.

STEP 3

Prioritize Hypotheses

Highest priority: **hypovolemia from femoral hemorrhage** + **neurovascular compromise** of the affected limb. Secondary: uncontrolled pain, risk for VTE, risk for skin breakdown, fall-injury workup.

STEP 4

Generate Solutions

Establish 2 large-bore IVs & fluid resuscitation; type & crossmatch; pain control (IV opioid); immobilize limb (Buck's traction if ordered); q1h neurovascular checks (6 Ps); NPO; prepare for surgery within 24–48 hr.

STEP 5

Take Action

Start IV NS, draw labs (CBC, type & crossmatch, BMP, coags), administer ordered IV morphine, immobilize the leg, pad bony prominences, continuous VS & SpO_2 monitoring, notify surgical team, complete pre-op checklist.

STEP 6

Evaluate Outcomes

Expected: HR < 100, BP ≥ 110/70, pain < 4/10, warm pink foot with palpable pulses, hemoglobin stable, client transported to OR. **Reassess** neurovascular status, pain, & perfusion q1h until surgery.