

DAY 3 — MOBILITY / IMMOBILITY STUDY GUIDE

Basic Care & Comfort • NGN NCLEX 2026 Master Review

POSITIONING

THA PRECAUTIONS

ROM

DVT/PE

PRESSURE INJURIES

PROGRESSIVE MOBILITY

CRITICAL /
EMERGENCY

PATHOPHYSIOLOGY

SAFE / EXPECTED

COMPLICATIONS

NCLEX TRAPS

PROCEDURES

PT EDUCATION

FOUNDATIONS — WHY IMMOBILITY KILLS

Every body system deteriorates with immobility. The fastest deterioration is in **cardiovascular and respiratory** systems (hours–days), then musculoskeletal (days–weeks), then GU/integumentary (days). Early progressive mobility prevents downstream catastrophes.

MNEMONIC — IMMOBILITY COMPLICATIONS

D E V A S T A T E

DVT · **Embolism (PE)** · **Ventilation impaired (atelectasis/pneumonia)** · **Anorexia & constipation** · **Skin breakdown** ·
Tachycardia/orthostatic hypotension · **Atony of muscles & bone loss** · **Thrombus & stasis** · **Emotional impact (depression, delirium)**

POST-PROCEDURE POSITIONING — QUICK REFERENCE

PROCEDURE / CONDITION	POSITION	WHY
Lumbar puncture (post)	Flat / supine 4–8 h	Prevent post-LP spinal headache from CSF leak
Thoracentesis (post)	Lie on UNAFFECTED side 1 h	Allow puncture site to seal; lung re-expansion
Liver biopsy (post)	RIGHT lateral 1–2 h, then bedrest 6–12 h	Compress liver against ribs to tamponade bleed
Cardiac cath (femoral)	Supine, leg straight, HOB $\leq 30^\circ$, 4–6 h	Prevent arterial bleed; assess pedal pulses

Unconscious / sedated	Side-lying (recovery)	Prevent aspiration; airway open
↑ ICP	HOB 30°, head midline	Promote venous drainage; avoid jugular kink
Tube feeding/aspiration risk	HOB ≥30°, ideally 45°	Reduce aspiration
Infant w/ cleft palate post-op	Side-lying or upright	Drain secretions; avoid stress on suture
Pulmonary edema / acute HF	High Fowler, legs dangling	↓ preload; ↑ chest expansion
ARDS	Prone (per protocol)	Improve V/Q matching
Hemorrhagic stroke	HOB 30°, midline	↓ ICP
Ischemic stroke	Flat or HOB low	Maintain cerebral perfusion (depending on protocol)
Air embolism	LEFT lateral Trendelenburg	Trap air in right ventricle apex
Cord prolapse	Knee-chest or Trendelenburg	Relieve cord pressure

TOTAL HIP ARTHROPLASTY (THA) — POSTERIOR APPROACH PRECAUTIONS

BIG 3 NEVER (POSTERIOR THA)

- (1) NO hip flexion past 90°
- (2) NO crossing midline (adduction)
- (3) NO internal rotation of operative leg

- Use abductor pillow / pillow between knees (in bed and during turn)
- Raised toilet seat, long-handled reacher, sock-aide, no low chairs
- Get into car backwards (sit first, then swing legs in)
- Operative leg on outside when getting in/out of bed
- Anterior approach: avoid HYPEREXTENSION + EXTERNAL rotation (opposite of posterior)

Dislocation s/sx: sudden severe pain, leg shortening, internal rotation of operative leg, unable to bear weight → STAT notify surgeon.

LOGROLLING — WHEN & HOW

INDICATIONS

- Spinal precautions (suspected/confirmed cord injury, post-laminectomy, spinal fusion)
- Pelvic fractures
- Cervical collar in place

TECHNIQUE

- Minimum 2–3 nurses
- Keep spine **ALIGNED** (head, neck, torso, hips move as one unit)
- Pillow between knees; arms across chest
- One nurse manages head/neck (gives count), others move torso/legs together
- Turn q2h; check skin every turn

RANGE OF MOTION (ROM)

TYPE	PERFORMED BY	INDICATION
Active ROM (AROM)	Client alone	Capable, conscious client; preserves strength + flexibility
Active-Assistive (AAROM)	Client + nurse	Some weakness/recovering function
Passive ROM (PROM)	Nurse moves; client passive	Unconscious, paralyzed, sedated; prevents contractures
Resistive	Client against resistance	Strength-building (rehab, weights)

- Each joint moved through full ROM 3–5 reps, 2–3× daily for unconscious clients
- Stop at point of resistance/pain — do NOT force
- Support joint above and below; smooth, slow motion

DVT & PULMONARY EMBOLISM

DVT RECOGNITION

- Unilateral calf swelling, warmth, redness, tenderness
- ≥ 3 cm difference in calf circumference
- **Do NOT use Homan's sign** (poor sensitivity, can dislodge clot)
- **Do NOT massage suspected DVT** → embolism risk
- D-dimer (sensitive not specific); duplex US confirms

DVT PREVENTION

- Early ambulation; SCDs/IPC; compression stockings
- Prophylactic anticoagulation (LMWH, DOACs)
- Hydration; ankle pumps; leg elevation per protocol

PE RECOGNITION

- Sudden dyspnea, pleuritic chest pain, tachypnea, tachycardia, hypoxia
- Anxiety, "feeling of doom," cough, hemoptysis
- STAT: O_2 , elevate HOB, IV access, notify provider, prepare for CT-PA, possible heparin/lytics

SCD contraindications: active DVT, severe PVD, ulcers, recent skin graft, severe edema. Always assess skin before/after.

PRESSURE INJURY STAGING (NPIAP)

STAGE	FINDINGS	KEY ACTION
Stage 1	Intact skin, non-blanchable erythema	Offload, assess Braden, do NOT massage
Stage 2	Partial-thickness loss; blister/abrasion; pink-red wound bed	Hydrocolloid; transparent film
Stage 3	Full-thickness; visible fat; no bone/tendon/muscle	Hydrogel; foam; assess for infection
Stage 4	Full-thickness with exposed bone/tendon/muscle; risk of osteomyelitis	Surgical/specialist; advanced dressings

Unstageable	Full-thickness obscured by slough/eschar	Cannot stage until base visualized
Deep Tissue Pressure Injury (DTPI)	Persistent non-blanchable deep red, maroon, or purple discoloration	Offload immediately; expect rapid evolution

NEVER reverse-stage. A healing Stage 3 → "healing Stage 3," not Stage 2. Tissue regenerates as scar, not original layers.

SHEAR VS FRICTION VS PRESSURE

PRESSURE

- Compressive force on tissue over bony prominence
- Sacrum, heels, occiput

FRICTION

- Skin rubs against surface
- Sliding up bed; superficial abrasion

SHEAR

- Skin stays, deep tissue slides (HOB > 30° → sacrum shear)
- Most damaging

PREVENTION

- Reposition q2h (bed) / q1h (chair)
- Pressure-redistribution mattress and chair cushion
- HOB ≤ 30° when possible to prevent shear
- Use lift sheet to move client (not drag)
- Heel offloading (boots or float on pillow)
- Moisture management — barrier cream for incontinence-associated dermatitis
- Nutrition: protein 1.2–1.5 g/kg/day; vitamin C; zinc; adequate calories

PRONE POSITIONING

- Used in ARDS to improve oxygenation (V/Q matching)
- Typically 12–16 h/day in prone protocols
- Pad bony prominences; protect eyes (corneal abrasion); secure ETT
- Watch for pressure injuries on forehead, chin, chest, knees, dorsal foot

- Contraindicated: increased ICP, spinal instability, recent abdominal surgery, pregnancy > 1st trimester

ORTHOSTATIC HYPOTENSION

- SBP drop ≥ 20 mmHg or DBP drop ≥ 10 mmHg from supine to standing within 3 min
- Symptoms: dizziness, lightheadedness, syncope, blurred vision
- Prevention: dangle legs before standing; rise slowly; compression stockings; hydration; review meds (antihypertensives, diuretics, alpha-blockers, TCAs)
- Older adults more vulnerable

PROGRESSIVE MOBILITY LADDER

- 1 Passive ROM, head-of-bed elevation, frequent turning
- 2 Active ROM, dangle legs, sit at edge of bed
- 3 Sit in chair (with assistance)
- 4 Stand and pivot
- 5 Ambulate short distances with assistance
- 6 Independent ambulation, advance distance

Why early mobility? Reduces ICU delirium, ventilator days, length of stay, mortality. Move clients within 24–48 h when stable.

IF / THEN — CLINICAL DECISION RULES

IF post-LP client	→ flat 4–8 h to prevent spinal headache
IF post-thoracentesis	→ unaffected side DOWN 1 h
IF post-liver biopsy	→ RIGHT side 1–2 h to compress liver and tamponade bleed
IF unilateral calf swelling/redness	→ DO NOT massage; notify provider; suspect DVT
IF posterior THA + leg internally rotated and shortened	→ suspect dislocation; STAT
IF Stage 1 PI	→ offload; do NOT massage; reassess Braden
IF eschar covers wound base	→ unstageable until base visualized
IF orthostatic drop on standing	→ reposition supine; assess meds; teach slow rise

NCLEX TRAPS

Homan's sign for DVT

Outdated; can dislodge clot.

Massage Stage 1 PI

Worsens tissue damage.

Reverse-staging

Never. Healing 3 = "healing 3."

Elevating residual limb >24 h

Hip flexion contracture.

Posterior THA with hip flexed past 90°

Dislocation.

SCDs on suspected DVT

Embolism risk.

Pillow between knees omitted post-THA

Risk of adduction → dislocation.

Prone with ↑ ICP

Contraindicated.

NCLEX PATTERNS

PATTERN: POSITION BY PROCEDURE

PATTERN: PI PREVENTION BUNDLE

PATTERN: SUDDEN DYSPNEA POST-OP

PATTERN: MOBILITY = PREVENTION

- LP = flat
- Thoracentesis = unaffected DOWN
- Liver biopsy = R side
- Cardiac cath = leg straight

- q2h turn / lift sheet
- Heel offload
- HOB $\leq 30^\circ$ when possible
- Skin assessment q shift

- Think PE first
- O_2 , HOB up, STAT provider, CT-PA

- Early ambulation prevents DVT, PI, atelectasis, delirium, constipation, deconditioning

NGN BOW-TIE — SAMPLE SYNTHESIS

Case: 70 y/o post-op day 4 abdominal surgery on bedrest. Calf circumference R 36 cm, L 33 cm. R calf warm, tender. SpO₂ 95% room air. HR 96.

TOP 2 ACTIONS	CONDITION	TOP 2 MONITOR
• Notify provider; do NOT massage; bedrest with leg elevated • Anticipate D-dimer, duplex US, anticoagulation start	SUSPECTED DVT	• SpO₂, HR, dyspnea (PE) • Calf circumference, anticoag labs

PATIENT & FAMILY EDUCATION CHECKLIST

- ✓ Move/turn at least every 2 hours when in bed
- ✓ Get out of bed within 24–48 h after surgery if cleared
- ✓ Use SCDs/compression stockings as ordered
- ✓ Hip precautions for THA: no flexion past 90°, no crossing legs, no internal rotation (posterior approach)
- ✓ Use abductor pillow, raised toilet seat, reacher
- ✓ Report sudden chest pain, dyspnea, leg swelling/pain immediately
- ✓ Inspect skin daily; offload bony prominences

- ✓ Drink fluids; eat protein-rich foods to support skin and muscle
- ✓ Rise slowly from supine to standing; dangle legs first
- ✓ Follow weight-bearing orders strictly

DAY 3 OF 7 — BCC STUDY GUIDE SERIES

Pair this guide with the Day 3 Question Bank (20 NGN items).

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