DAY 1 — ASSISTIVE DEVICES STUDY GUIDE

Basic Care & Comfort • NGN NCLEX 2026 Master Review

CANE | WALKER | CRUTCHES | WHEELCHAIR | TRANSFERS | PROSTHESIS

CRITICAL / EMERGENCY | PATHOPHYSIOLOGY | SAFE / EXPECTED | COMPLICATIONS | NCLEX TRAPS | PROCEDURES | PT EDUCATION

FOUNDATIONS — WHY ASSISTIVE DEVICES MATTER

Assistive devices restore mobility, prevent falls, and protect injured/operative limbs. Wrong-sized device or wrong technique = fall, dislocation, axillary nerve damage, or wrist injury. NCLEX prioritizes **safety** + **weight-bearing status** + **device-side rules**.

> **Three universal rules:** (1) Sturdy, non-skid footwear, (2) Brakes locked when transferring, (3) Clear path — no rugs, cords, pets, or wet floors.

CANE — USE, FITTING, GAIT

MNEMONIC

C O A L

Cane **O**pposite **A**ffected **L**eg

FITTING

- Top of cane = level of **greater trochanter** (or wrist crease when arm hangs at side)
- Elbow flexion 15–30° when hand on grip
- Cane tip 6 in (15 cm) lateral to little toe

WALKING PATTERN

1. Cane forward (held in **strong** hand)
2. Affected (weak) leg forward to meet cane
3. Strong leg moves past

STAIRS

GOING UP

- Strong leg first
- Then weak leg + cane
- "Up with the Good"

GOING DOWN

- Cane + weak leg first
- Then strong leg
- "Down with the Bad"

WALKER — USE, FITTING, GAIT

FITTING

- Handgrips at **greater trochanter / wrist crease**
- Elbows flexed 15–30°
- Standard walker = lift and place; rolling walker = roll forward

WALKING PATTERN (STANDARD WALKER, PARTIAL WEIGHT-BEARING)

1. Lift walker, place ~12 in ahead (do NOT step inside it)
2. Step weak leg forward into walker space
3. Step strong leg forward to meet weak leg

Trap: Stepping *inside* the walker (too far) shifts center of gravity → fall. Walker should remain just ahead of toes.

CRUTCHES — FITTING, GAITS, HAZARDS

FITTING (AXILLARY CRUTCHES)

- Pad sits **2–3 finger widths (1.5–2 in)** below axilla — NEVER weight-bear on axilla (brachial plexus / axillary nerve injury)

- Handgrips at wrist crease, elbows flexed 20–30°
- Crutch tips 6 in lateral and 6 in anterior to feet (tripod position)

CRUTCH GAITS — WHEN TO USE WHICH

GAIT	WEIGHT-BEARING	PATTERN
4-point	Bilateral partial WB; slow, stable	R crutch → L foot → L crutch → R foot
2-point	Bilateral partial WB; faster than 4-point	R crutch + L foot together → L crutch + R foot together
3-point	Non-weight-bearing on affected leg (e.g., recent fracture)	Both crutches + weak leg forward → strong leg through
Swing-through	Bilateral lower extremity weakness (e.g., paraplegia)	Both crutches forward → swing both legs past crutches
Swing-to	Same as above, less advanced	Both crutches forward → swing legs to meet crutches

STAIRS (CRUTCHES)

UP

- Strong leg first
- Then crutches + weak leg together

DOWN

- Crutches + weak leg first
- Then strong leg

TRANSFERS — BED, CHAIR, WHEELCHAIR

1. Lock **both wheelchair brakes**; remove or swing away the leg rests/footrests
2. Position chair on the client's **strong side** at 45° angle to bed
3. Client wears non-skid shoes; HOB up; dangle legs first to assess orthostatic tolerance
4. Use a **gait belt**; bend at knees, not waist; pivot toward the strong leg
5. Stand-pivot transfer: count "1-2-3"; client pushes off bed with hands
6. Lower into chair slowly; verify hips back fully; reapply foot rests

Mechanical lift indicated when client cannot bear weight or weighs > what staff can safely manage. Two-person assist minimum for full lifts.

WHEELCHAIR SAFETY

- Brakes locked any time client is entering/exiting
- Footrests UP during transfer; DOWN once seated
- Backing DOWN ramps (chair faces uphill) — prevents tipping forward
- Reposition q1h to prevent pressure injury (especially ischial tuberosities, sacrum)
- Weight-shift teaching: lean forward or push up every 15–30 min while seated

PROSTHESIS & STUMP (RESIDUAL LIMB) CARE

- Inspect skin daily for redness, blisters, breakdown
- Wash residual limb with mild soap and water; dry thoroughly before donning prosthesis
- Stump sock: clean daily; ensures fit and absorbs perspiration
- Prone position 20–30 min several times daily (BKA/AKA) to **prevent hip flexion contracture**
- Do NOT elevate residual limb on a pillow after the first 24 h post-op (causes flexion contracture)
- Wrap residual limb in figure-8 (BKA) or recurrent (AKA) pattern to shape for prosthesis

IF / THEN — CLINICAL DECISION RULES

IF client has right-sided weakness	→	cane in LEFT (strong) hand (COAL)
IF crutch pads pressing into axilla	→	refit immediately — risk of brachial plexus / axillary nerve damage
IF non-weight-bearing on R leg with crutches	→	3-point gait

IF going DOWN stairs with cane	→	cane + weak leg first; strong leg follows
IF transferring to wheelchair	→	brakes locked, footrests up, chair on strong side
IF post-amputation 2 days	→	prone 20–30 min several times daily; do NOT elevate residual limb on pillow
IF walker tip rubber worn down	→	replace before use — slip hazard

NCLEX TRAPS — HIGH-YIELD PITFALLS

Cane on weak side
Wrong. Cane goes on STRONG side (COAL).

Weight on axilla
Causes brachial plexus injury — pad must sit 2–3 fingers below axilla.

Stepping inside walker
Shifts CG past base → fall. Walker just ahead of toes.

"Up with the Bad"
Reversed. Up with GOOD; Down with BAD.

Elevating residual limb
Past 24 h → hip flexion contracture. Use prone instead.

Going down ramp facing forward in wheelchair
Tip risk. Back DOWN ramps; face uphill.

Footrests still down during transfer
Trip hazard / shin trauma. Up during transfer.

Forgetting brakes
#1 cause of wheelchair fall. Always lock before transfer.

NCLEX PATTERNS — RECURRING THEMES

PATTERN: DEVICE-SIDE CONFUSION

- Cane = OPPOSITE affected (COAL)
- Stairs UP = strong first
- Stairs DOWN = weak first

PATTERN: FIT ERRORS

- Crutch pads in axilla = wrong
- Walker too tall/short (check trochanter)
- Elbow flexion 15–30°

PATTERN: TRANSFER SAFETY

- Brakes always
- Strong-side angle
- Gait belt at waist
- Pivot to strong leg

PATTERN: DELEGATION (UAP)

- UAP CAN: ambulate stable client w/ established plan
- UAP CANNOT: assess gait/teach device use/initial transfer

NGN BOW-TIE — SAMPLE SYNTHESIS

Case: 72 y/o post-op R total knee arthroplasty day 2, ordered partial weight-bearing R leg, crutches, discharge tomorrow. Lives alone in 2-story house.

TOP 2 ACTIONS	CONDITION	TOP 2 MONITOR
• Teach **3-point gait** for partial WB • Stairs: UP with strong, DOWN with weak + crutches	**PARTIAL WB POST-TKA — Crutch ambulation + home safety**	• Pain, swelling, surgical site • Fall risk; PT clearance for stairs before D/C

PATIENT & FAMILY EDUCATION CHECKLIST

- ✓ Always wear non-skid, closed-toe shoes
- ✓ Inspect device tips/rubber for wear weekly
- ✓ Remove rugs, cords, pets from walking paths; install grab bars; adequate lighting
- ✓ Cane goes in OPPOSITE hand of weak leg
- ✓ Stairs: "Up with Good, Down with Bad"
- ✓ Crutches: never lean on the underarm pad
- ✓ Walker: keep just ahead of toes — don't step inside
- ✓ Wheelchair brakes locked before every transfer
- ✓ Call for help with transfers if dizzy, weak, or new pain
- ✓ Follow weight-bearing orders strictly until provider clears advancement

DAY 1 OF 7 — BCC STUDY GUIDE SERIES

Pair this guide with the Day 1 Question Bank (20 NGN items).

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