DIANE'S NGN NCLEX 2026 VISUAL STUDY LIBRARY

Autonomic Dysreflexia

A life-threatening hypertensive emergency in clients with spinal cord injury at **T6 or higher**. Triggered by a noxious stimulus below the level of injury — most commonly a full bladder. Recognize fast, sit the client up, find the cause.

MEDICAL EMERGENCY | NEUROLOGICAL SYSTEM | SPINAL CORD INJURY COMPLICATION | HIGH-YIELD NGN TOPIC

📚 **Content Sourcing Note:** Autonomic dysreflexia is not covered in Diane's uploaded reference notes. Content for this infographic is drawn from standard NGN NCLEX 2026 references (Saunders Comprehensive Review, ATI Adult Medical-Surgical, Lippincott NCLEX-RN, and current evidence-based clinical practice guidelines).

1 SECTION ONE Definition & Overview

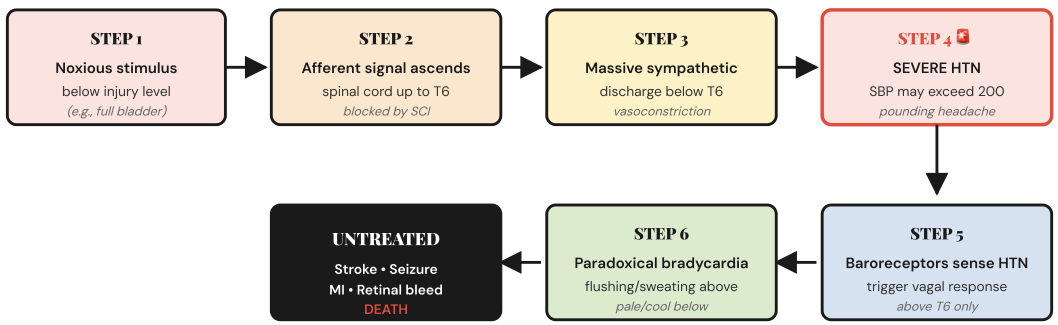
- **Autonomic dysreflexia (AD)** is a sudden, exaggerated sympathetic nervous system response to a noxious stimulus below the level of spinal cord injury.
- Occurs in clients with **SCI at T6 or above** — the splanchnic nerves (T6–L2) lose descending inhibitory control from the brain.
- Causes severe, life-threatening hypertension that can lead to **stroke, seizure, retinal hemorrhage, MI, or death** within minutes if not corrected.
- Why it matters: It is a true medical emergency — recognition and immediate intervention are tested heavily on NGN NCLEX.

🔑 THE RULE OF T6

AD occurs only when SCI is at T6 or higher. Below T6, the intact splanchnic outflow can still be regulated and AD does not occur.

SECTION TWO

2 Pathophysiology — Step by Step



Key insight: Sympathetic surge below T6 cannot be balanced because the inhibitory signal from the brain cannot cross the injury.

SECTION THREE

3 Common Triggers — Find the Cause Fast

Any noxious stimulus below the level of injury can trigger AD. Assess in this priority order:

#1 CAUSE

Bladder Distension

Full bladder, kinked Foley, blocked catheter, UTI. **Always assess first.**

#2 CAUSE

Bowel Impaction

Fecal impaction, constipation, distended rectum, hemorrhoids.

#3 CAUSE

Skin Stimulation

Pressure injury, tight clothing, wrinkled sheets, ingrown toenail, sunburn.

OTHER

Painful Stimulus

Fracture, surgery, invasive procedure, kidney stone.

OTHER

Reproductive

Sexual activity, menstruation, labor/delivery, uterine contractions.

OTHER

Temperature

Extreme heat or cold exposure, hot showers, drafts.

SECTION FOUR

4 Signs & Symptoms — Split by Injury Level

The hallmark is **severe HTN + pounding headache + paradoxical bradycardia**. Symptoms split sharply above vs. below the injury level.

🔴 ABOVE the Injury Level

- **Severe pounding headache** (often first symptom)
- **Flushed, red, warm skin** on face/neck/chest
- **Profuse sweating (diaphoresis)** above injury
- Nasal congestion / stuffy nose
- Blurred vision, spots in vision
- Anxiety, apprehension, feeling of dread

Vagal parasympathetic compensation reaches above injury

🔵 BELOW the Injury Level

- **Pale, cool, clammy skin**
- **Goosebumps (piloerection)**
- No sweating (anhidrosis)
- Vasoconstriction predominates

Sympathetic discharge unopposed below injury

🚨 **RED FLAG VITALS: SBP suddenly 20–40 mm Hg above baseline (often >200 mm Hg) + BRADYCARDIA (paradoxical, not the expected tachycardia). In a SCI client, an SBP of 150 may be a hypertensive crisis if baseline is 90/60.**

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SECTION FIVE

Priority Nursing Interventions — In Order

ABC framework applies, but the FIRST action for AD is unique: SIT THE CLIENT UP. Gravity is your fastest antihypertensive.

1

SIT the client UP — High Fowler's, legs dependent

Elevate HOB to 90° and lower legs if possible. Uses gravity to pool blood in lower extremities and rapidly lower BP. **FIRST ACTION on NCLEX.**

2

LOOSEN restrictive clothing / devices

Remove tight clothes, abdominal binders, TED hose, restraints, leg bags — any potential source of noxious stimulus.

3

ASSESS for the cause — Bladder first, then bowel, then skin

Palpate bladder. Check Foley for kinks/blockage. If no catheter and bladder distended → straight cath with lidocaine jelly. Then check rectum for impaction (after applying anesthetic ointment to avoid worsening stimulus). Then inspect skin.

4

MONITOR vital signs every 5 minutes

Especially BP. Stay with the client. Document trends.

5

NOTIFY the HCP / Rapid Response

If BP remains elevated after removing the stimulus, prepare to administer a fast-acting antihypertensive (see Pharmacology).

6

ADMINISTER prescribed antihypertensive

Nitrates, hydralazine, or nifedipine per order. Monitor for over-correction — hypotension can be just as dangerous.

7

DOCUMENT & educate

Identified trigger, symptoms, interventions, response, BP trends. Reinforce trigger prevention with client and family.

SECTION SIX

6 Pharmacology — Fast-Acting Antihypertensives

Used **only after** the noxious stimulus has been identified and treated, OR if BP remains dangerously elevated.

Drug	Class	Mechanism	Key Side Effects	Nursing Considerations
Nitroglycerin (paste/SL/IV)	Nitrate / vasodilator	Relaxes venous & arterial smooth muscle → ↓ preload & afterload	Hypotension, throbbing headache, reflex tachycardia, flushing	Hold if SBP < 90. Contraindicated with PDE-5 inhibitors (sildenafil) within 24–48 h.
Hydralazine (IV/IM)	Direct arteriolar vasodilator	Relaxes arteriolar smooth muscle → ↓ SVR & afterload	Reflex tachycardia, headache, lupus-like syndrome (long-term)	Monitor BP every 5 min. Onset 10–20 min IV. Useful in pregnancy.
Nifedipine (immediate-release PO)	Calcium channel blocker (dihydropyridine)	Blocks Ca^{2+} entry → arterial vasodilation	Flushing, headache, hypotension, peripheral edema, reflex tachycardia	"Bite and swallow" technique (do not sublingual — dangerous). Reserved for AD when other options unavailable.
Captopril (PO/SL)	ACE inhibitor	Blocks angiotensin II formation → vasodilation	Dry cough, hyperkalemia, angioedema, hypotension	Onset 15 min. Monitor K^+ and renal function. Avoid in pregnancy.
Lidocaine jelly 2% (topical)	Local anesthetic	Numbs urethra/rectum to prevent worsening AD during cath insertion or disimpaction	Rare systemic absorption	Apply to catheter tip before straight cath. Apply to rectum 5 min before disimpaction.

SECTION SEVEN

7 NCLEX Test Traps ⚠️ — Wrong vs. Right

❌ WRONG	✅ CORRECT
WRONG FIRST ACTION Lay the client flat / lower the head of the bed to "rest."	**CORRECT FIRST ACTION** SIT the client UP (high Fowler's) with legs dependent. Gravity lowers BP fastest.
WRONG FIRST ACTION Call the HCP before doing anything else.	**CORRECT FIRST ACTION** Reposition (sit up), THEN find the cause, THEN notify HCP if needed. Nurses initiate intervention first.
WRONG INTERPRETATION Expecting tachycardia with elevated BP.	**CORRECT INTERPRETATION** AD causes paradoxical **bradycardia** due to vagal response above the injury. HR may be 40s–60s.
WRONG ASSESSMENT ORDER Check bowel first, then bladder.	**CORRECT ASSESSMENT ORDER** Bladder is the #1 cause — always check it FIRST (palpate, check Foley patency, scan for distension).
WRONG TRIGGER THINKING A BP of 130/80 in a quadriplegic is normal — don't worry about it.	**CORRECT TRIGGER THINKING** Many SCI clients have a baseline SBP of 90. A SBP of 130 may be 40 mm Hg above baseline = AD until proven otherwise.
WRONG PATIENT POPULATION Assuming AD can occur with any SCI.	**CORRECT PATIENT POPULATION** Only T6 and above. Below T6, AD does not occur because sympathetic outflow can still be regulated.
WRONG TECHNIQUE Insert a Foley quickly without lubrication "to relieve the bladder."	**CORRECT TECHNIQUE** Use lidocaine jelly 2% — the catheter itself can become a noxious stimulus that worsens AD.

SECTION EIGHT

8 Patient & Family Education

Clients with SCI at T6 or higher live with the lifelong risk of AD. Education is prevention.

1. **Know your baseline BP.** An SBP 20+ mm Hg above baseline is suspicious for AD.
2. **Empty the bladder regularly.** Follow your scheduled catheterization plan. Never let the bladder become overfull.
3. **Maintain a regular bowel program.** Prevent constipation and impaction with diet, hydration, and scheduled care.
4. **Inspect skin daily.** Watch for pressure injuries, ingrown toenails, burns, tight clothing.
5. **Recognize early signs:** pounding headache, flushed face, sweating, stuffy nose, goosebumps. Act immediately.
6. **Carry an AD wallet card.** Inform any new HCP of your SCI level and AD risk before procedures.
7. **Sit up at the first sign.** Teach family to elevate HOB and call for help if symptoms occur.
8. **Keep antihypertensive at home** (if prescribed) and know when to use it. Always seek emergency care for severe HTN.

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SECTION NINE

Memory Mnemonics & Pattern Recognition

B U R P

The 4 Trigger Categories — assess in order

- **B** **B**ladder — distension, blocked Foley, UTI *(#1)*
- **U** **U**rinary tract irritation — stones, infection
- **R** **R**ectum — impaction, constipation *(#2)*
- **P** **P**ressure / Pain on skin — wounds, tight clothing

S L A M

First 4 Nursing Actions — in order

- **S** **S**it up — high Fowler's, legs down
- **L** **L**oosen tight clothing & devices
- **A** **A**ssess for cause — Bladder → Bowel → Skin
- **M** **M**onitor BP every 5 min & notify HCP

H I G H

The Classic AD Cluster

- **H** **H**ypertension — severe, sudden
- **I** **I**mpending doom / anxiety
- **G** **G**ooseflesh below + flushing above
- **H** **H**eadache (pounding) + slow HR

T 6

Pattern Recognition Rule

- **T**op of the cord injury at **T6 or higher** = AD possible
- Below T6 → AD does not occur
- Think: "Six = Sympathetic Storm"

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NGN CLINICAL JUDGMENT MEASUREMENT MODEL

NCJMM 6-Step Scenario

SCENARIO

A 32-year-old male client with a C6 spinal cord injury sustained 8 months ago is admitted to the rehabilitation unit. He uses intermittent catheterization every 4 hours. At 1400, he calls the nurse complaining of a sudden severe pounding headache. The nurse enters the room and finds him diaphoretic, with a flushed red face and chest. He last self-catheterized 6 hours ago. Vital signs: BP 198/112 (baseline 92/58), HR 52, RR 18, SpO_2 98% RA, temp 98.4°F.

Step 1

Recognize Cues

- SCI at C6 (above T6) ✓ at risk
- SBP 198 — 106 above baseline 🚨
- Bradycardia (HR 52) — paradoxical
- Pounding headache, flushing, diaphoresis above injury
- Missed scheduled cath by 2 hours

Step 2

Analyze Cues

- Pattern = classic autonomic dysreflexia
- Likely trigger: **bladder distension** (overdue cath)
- Hypertensive emergency — risk of stroke, seizure, MI
- Not septic (afebrile), not cardiac primary

Step 3

Prioritize Hypotheses

- **#1 Autonomic dysreflexia** — highest priority
- #2 Bladder distension as trigger
- Rule out: hypertensive emergency from other cause, intracranial bleed

Step 4

Generate Solutions

- Place in high Fowler's, legs dependent
- Loosen clothing, abdominal binder
- Straight catheterize with lidocaine jelly
- Monitor BP every 5 min
- Notify HCP, prepare antihypertensive

Step 5

Take Action

- Sit client up — HOB 90°, legs over edge of bed
- Catheterize: 850 mL urine returned
- Stay with client; recheck BP every 5 min
- Notify HCP; nitroglycerin paste ordered if BP remains > 150 SBP

Step 6

Evaluate Outcomes

- BP 10 min after cath: 138/78 — improving ✓
- Headache resolving, no longer flushed ✓
- HR 78 ✓
- Reinforce 4-hour cath schedule; document trigger
- Educate on signs & prevention