

Use Precautions to Prevent Injury and/or Complications Associated with a Procedure or Diagnosis

Preventing **injuries and complications** is a **key nursing responsibility**. The NCLEX often tests how to **anticipate risks**, **use safety measures**, and **intervene early to prevent adverse outcomes**.

1 General Precautions for Procedures & Diagnoses

✓ Identify High-Risk Patients Before Any Procedure:

- Elderly, immunocompromised, bleeding disorders, chronic diseases (diabetes, heart failure).
- Patients on **anticoagulants (warfarin, heparin)** or **chemotherapy** (low platelets = bleeding risk).
- Patients with **allergies to latex, iodine, or contrast dye** (must use alternatives).

✓ Use Time-Out Procedures (Patient Safety Checks):

- Verify **right patient, procedure, site, and side** before surgery.
- Ensure **informed consent is signed** before any invasive procedure.
- Confirm **allergies & medication history** before giving contrast dyes or anesthesia.

✓ Standard Post-Procedure Monitoring:

- Monitor vital signs closely (BP, HR, SpO₂) for early signs of complications.
- Assess for pain, bleeding, infection, and respiratory distress.
- Reposition & encourage early ambulation to prevent complications.

⚠ **NCLEX KEY POINT:** If a patient reports severe pain, bleeding, or sudden difficulty breathing after a procedure, assess immediately and notify the provider! 🚨

2 Procedure-Specific Precautions

Lumbar Puncture (Spinal Tap)

- ✓ Position the patient in a fetal side-lying or sitting position for insertion.
- ✓ Monitor for post-procedure headache (caused by CSF leak).
- ✓ Lie flat for 4-6 hours after to prevent spinal headache.
- ✓ Assess for signs of increased ICP (severe headache, vomiting, vision changes).

⚠ NCLEX KEY POINT: If a patient develops a severe headache after a lumbar puncture, encourage fluids & caffeine, and notify the provider for a possible blood patch! 🚨

Paracentesis (Fluid Removal from the Abdomen)

- ✓ Have the patient empty their bladder before the procedure (prevents puncturing the bladder).
- ✓ Position patient in a High Fowler's (sitting upright) during the procedure.
- ✓ Monitor BP after (hypotension risk due to fluid shift).

⚠ NCLEX KEY POINT: If the patient becomes dizzy or lightheaded post-paracentesis, assess BP immediately (risk of hypovolemic shock). 🚨


Thoracentesis (Fluid Removal from the Pleural Space)

- ✓ Position patient sitting upright, leaning forward over a bedside table.
- ✓ Monitor for pneumothorax post-procedure (dyspnea, absent breath sounds, tracheal deviation).
- ✓ Assess for shock (low BP, high HR) due to rapid fluid loss.

⚠ NCLEX KEY POINT: If a patient suddenly develops chest pain or absent breath sounds after a thoracentesis, suspect a pneumothorax—notify the provider immediately! 🚨


Central Line Insertion (Subclavian, Internal Jugular, PICC Line)

- ✓ Place patient in Trendelenburg position to prevent air embolism (except for femoral lines).
- ✓ Confirm placement with a chest X-ray before using.
- ✓ Monitor for pneumothorax (sudden dyspnea, absent breath sounds).

⚠ NCLEX KEY POINT: If a central line is accidentally removed, immediately apply direct pressure and place the patient in the left-side Trendelenburg position to prevent an air embolism! 


Liver Biopsy (Assessing Liver Disease or Tumors)

- ✓ Assess coagulation status (PT, INR, platelets) before the procedure (risk of bleeding).
- ✓ Position patient on the RIGHT SIDE after the procedure (applies pressure to stop bleeding).
- ✓ Monitor for signs of internal bleeding (tachycardia, hypotension, abdominal pain).

⚠ NCLEX KEY POINT: Severe shoulder pain after a liver biopsy may indicate internal bleeding—assess immediately! 

Cardiac Catheterization (Heart Vessel Assessment)

- ✓ Assess for shellfish/iodine allergy (contrast dye risk).
- ✓ Post-procedure, keep the affected leg straight for 4-6 hours to prevent bleeding.
- ✓ Monitor for retroperitoneal bleeding (severe back pain, hypotension, tachycardia).

⚠ NCLEX KEY POINT: If a patient develops severe back pain after a cardiac cath, suspect retroperitoneal bleeding and notify the provider immediately! 

3 Preventing Post-Procedure Complications

✓ Prevent Bleeding:

- Apply **direct pressure** after catheter removals.
- **Monitor hemoglobin & hematocrit** if bleeding is suspected.
- Teach patients to **avoid heavy lifting after invasive procedures**.

✓ Prevent Infection:

- Use **sterile technique** for dressing changes & IV access.
- **Monitor for fever, redness, swelling, purulent drainage**.

✓ Prevent Blood Clots (DVT, Pulmonary Embolism):

- Encourage **early ambulation & leg exercises**.
- Use **compression devices (SCDs)** unless contraindicated.

✓ Prevent Air Embolism:

- Place patient in **Trendelenburg or left-side lying position** if suspected.
- Always **prime IV lines properly** to remove air bubbles.

✓ Prevent Aspiration:

- Keep head of bed **elevated $\geq 30^\circ$** post-procedure unless contraindicated.
- Encourage **coughing & deep breathing exercises**.

⚠ **NCLEX KEY POINT:** Always assess for early signs of complications (bleeding, infection, airway obstruction, or shock) and intervene immediately! 🚨

NCLEX Quick Review:

- Position patient on the right side after a liver biopsy to prevent bleeding.
- Trendelenburg position prevents air embolism during central line insertion.
- Monitor for pneumothorax after a thoracentesis or central line insertion.
- Severe headache after a lumbar puncture = CSF leak (increase fluids, notify provider).
- Back pain post-cardiac cath = Retroperitoneal bleeding (emergency!).
- If an air embolism occurs, place the patient in left-side Trendelenburg and call for help!