Nutrition, tube feeding and elimination

Diets and textures, dysphagia, intake and output, NG and PEG feeding, bowel care, incontinence and catheters

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1 AT A GLANCE

Food is medicine for healing, and a swallow in the wrong place can cause pneumonia. Done wrong, a tube feeding can go straight into the lungs.

Diet steps and textures

Diet	What it means
NPO	Nothing by mouth: around procedures, no bowel sounds, severe vomiting, a change in mental status. Oral care matters even more
★ **Clear liquid**	**See-through**, and liquid at room temperature: water, apple juice, clear soda, gelatin, popsicles, broth. First after surgery
Full liquid	Adds residue: milk, orange juice, pudding, creamed soups, cereals
Mechanical soft, pureed	Give the prescribed IDDSI level; check it with the standard tests. Pureed: smooth, no lumps, passes the Level 4 tests
Disease diets	Diabetic: individualized, consistent carbohydrate planning. Cardiac: low fat, no added salt. Renal: individualized; may address potassium, phosphorus, sodium, protein and fluid

Assessing nutrition

- Normal adult BMI: **18.5 to 24.9**.
- ★ Red flags: BMI under 18.5, losing more than 10% of body weight in 6 months, or a change of more than 1 kg in a day.
- A change that fast usually means fluid, not fat. Weigh at the same time, on the same scale.
- Albumin and prealbumin fall with inflammation and illness, so they aren't reliable nutrition markers. Read them with the full assessment.
- Older adults: screen, for example with the Mini Nutritional Assessment. Thirst fades, so dehydration sneaks up.

Safe feeding and dysphagia

- ★ **Repeated coughing or throat clearing** while eating or drinking can be an early sign. Stop feeding, keep them upright, check breathing, and report it. Hold food and drink until the swallow is assessed; a speech therapist recommends the safe textures.
- ★ Sit the client **fully upright, about 90 degrees**, as tolerated. Small bites at a steady pace, alternating food and drink. Afterwards, follow the swallowing plan for position and how long to keep it.
- Thickened liquids: follow the order exactly, mix to the directions, and **never add ice**: it thins the drink as it melts.
- Check every tray against the order, and the diet card against the client, diet, texture and liquid. A banana on a low-potassium tray, or a salty soup on a cardiac one, needs questioning.

Intake and output

- Food: the percentage of the meal eaten, to the nearest quarter. Fluids: in mL.
- ★ **1 fluid ounce is 30 mL**: a 6-ounce cup is 180 mL, an 8-ounce cup 240 mL.
- If it melts at room or body temperature, it's fluid: ice chips, ice cream, popsicles, gelatin. Soups and broths count too; follow facility rules for measuring them.
- ★ Judge urine output by weight, time and context. Adults: commonly **at least 0.5 mL/kg/h**.
- Dehydration: dry mouth, poor skin turgor, dark or scant urine, dizziness, a fast heart rate, low blood pressure. Older adults: confusion, falls, bladder infections.

Feeding tubes

	Key points
Which tube	NG: short-term, usually under 4 weeks. PEG or PEJ, through the abdominal wall: longer feeding
Inserting an NG tube	High Fowler's, head neutral. Measure **nose to earlobe to xiphoid**, and mark it. Chin tucked, swallow as you advance; sips of water only if safe and allowed
★ **Placement**	**X-ray** confirms it after insertion; record the length at the nostril. Before each use, and after any suspected move, recheck with your approved, validated algorithm (aspirate pH, X-ray or both). **pH 5.5 or lower** supports gastric placement. Nothing goes in until it's confirmed. Not reliable: the whoosh test (injected air), the look of the aspirate, the external length alone
★ **Position**	Head of the bed **30 to 45 degrees** during feeding, unless contraindicated. After a bolus, at or above 30 degrees for at least an hour
Flushes and clogs	Flush each shift, before and after bolus feeds, before, between and after medicines, and as ordered during continuous feeds. Clog: warm water, a 60 mL syringe, gentle back-and-forth. No cranberry juice or soda
Intolerance	Bloating, nausea, vomiting, diarrhea, cramping or constipation: slow or stop the feeding, tell the provider. Residuals under 500 mL without other signs aren't a reason to stop; follow policy. Monitor glucose and electrolytes
Removing an NG tube	Sit the client up, flush with 10 to 20 mL of air, deep breath and hold, one smooth, steady pull. Check it came out whole

Educational use only. Not a substitute for clinical judgment, your facility's policy or the provider's orders. Where practice varies, follow facility policy and state law. No patient information.

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1 AT A GLANCE, CONTINUED

Bowel problems

Problem	Key points
Constipation	Usually fewer than 3 bowel movements a week. Compare with the client's baseline, stool consistency, symptoms and bowel plan. Prevent with fluids, fiber, activity
★ **Fecal impaction**	**Liquid stool seeping** in a constipated client: stool is stuck in the rectum and fluid leaks around it. Treated as ordered
Ileus	After abdominal surgery or anesthesia: distension, pain, no gas, vomiting. NPO, often an NG tube to suction
Diarrhea	3 or more loose stools a day, or more often than the client's normal. On antibiotics, think C. difficile: contact precautions

Urinary incontinence

Type	What happens
Stress	Leaks with coughing, laughing or exertion: a weak pelvic floor
Urge	A sudden, strong need to go; leaks before reaching the toilet
Overflow	Dribbling from a bladder that never empties, often an enlarged prostate
Functional	The bladder works, but the client can't get to the toilet in time: arthritis, dementia

Help: Kegels: squeeze, hold for 3, relax, 10 to 15 times, at least 3 times a day. Timed voiding: go on a schedule, then stretch the time between.

Urinary catheters and CAUTI

- ★ Only for a real reason: retention, hourly output in critical illness, some surgeries, open sacral or perineal wounds in incontinent clients when appropriate, end-of-life comfort. **Never for convenience** with incontinence. Consider alternatives first.
- ★ Sterile insertion, smallest catheter that drains well. Closed system, no kinks, **bag below the bladder, never on the floor**. Sample from the disinfected port, not the bag. No routine changes.
- Report urgently: fever over 38 °C, chills, suprapubic or flank pain, **new confusion**. Cloudy or foul-smelling urine alone doesn't mean CAUTI.
- Ask every day if it's still needed; after surgery, aim to remove it within 24 hours. Record the removal time and track the first void.
- One guideline: no void in 4 to 6 hours, or the client feels full? Help them try. Measure the void and bladder-scan the residual per protocol. No scanner: notify the provider of the findings; a straight cath checks the residual, per order or protocol.
- Irrigation: true urine output is the total drained minus the irrigant (3,000 mL drained, 2,400 irrigant: 600 mL urine).

2 PRIORITY AND SAFETY CALLS

★ Severe coughing, distress or turning blue during NG insertion: **stop, remove the tube**, support airway and breathing, escalate urgently.

The NG mark is farther out than documented: hold the feeding and notify the provider. Pushing it back doesn't confirm where the tip is.

A client on tube feedings develops breathing symptoms: stop feedings and medicines, and notify the provider until placement is verified.

★ Formula connected to an IV line has killed clients: **trace every line** back to its source when you connect it, and at handoff.

No void since the catheter came out, and her bladder feels full: help her try to void, then scan the bladder. Don't just reinsert a catheter.

3 EXAM ANCHORS

1. Traps: milk or orange juice on clear liquids, ice in thickened drinks, and feeding a client lying flat.
2. Coffee 240 mL plus broth 120 mL is 360 mL; the sandwich is food.
3. Check placement first: no whoosh test, and no feeding before the X-ray.
4. Clogged tube: warm water, gentle back-and-forth pressure. Juice and soda can make it worse.
5. Catheters need a reason. Bag below the bladder, off the floor; samples from the port, not the bag.
6. Liquid stool seeping in a constipated client can be impaction, not diarrhea.

4 SELF-QUIZ

1. One fluid ounce is _____ mL.
2. Measure an NG tube from the nose to the earlobe to the _____.
3. An aspirate pH of _____ or lower supports gastric placement.
4. Diarrhea is _____ or more loose stools a day, or more often than the client's normal.
5. Dribbling from a bladder that never empties is _____ incontinence.

ANSWER KEY 1. 30 · 2. xiphoid process · 3. 5.5 · 4. 3 · 5. overflow

5 SOURCES

1. Open RN, Nursing Fundamentals 2e, 14.3 Nutrition. wtcs.pressbooks.pub/nursingfundamentals/chapter/14-3-ap…
2. Open RN, Nursing Skills 2e, 17.3 Assessments Related to Enteral Tubes. wtcs.pressbooks.pub/nursingskills/chapter/17-3-assessme…
3. HSSIB, Placement of nasogastric tubes (investigation report). hssib.org.uk/patient-safety-investigations/place…
4. CDC/HICPAC, CAUTI Guideline, Recommendations (2009). cdc.gov/infection-control/hcp/cauti/summary…
5. Open RN, Nursing Skills 2e, 21.6 Removing an Indwelling Urinary Catheter. wtcs.pressbooks.pub/nursingskills/chapter/21-6-removing…

Built from RN PocketPal course lessons: Nutrition and therapeutic diets (c03-l03); Feeding tubes and tube feedings (c03-l04); Bowel and bladder elimination (c03-l05). Every line on this sheet comes from those lesson scripts.

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