

Week 4 Edapt Notes Fundamentals

- **Enteral nutrition** is used for clients whose gastrointestinal tract is functioning.
- **Parenteral nutrition** is used for clients whose gastrointestinal tract is not functioning.
- Room temperature is the safest and most comfortable temperature for gastrointestinal ingestion of enteral nutrition.
- When preparing to administer an enteral feeding, the nurse should verify nasogastric tube placement, flush the feeding tube with 30 mL of water, and administer the feeding at room temperature.
- The head of the bed should be elevated at least 30 degrees. The nurse should use aseptic techniques to connect the administration tubing to the feeding container.
- Enteral nutrition can be administered by a caregiver in the home. Modular formula contains a single macronutrient. Enteral nutrition is administered continuously to critically ill clients. Enteral nutrition is often preferred over parenteral nutrition.
- Enteral nutrition can be administered via the nasoenteral route (nasogastric, nasoduodenal, or nasojejunal) or through gastric tubes inserted into the stomach (gastrostomy) or jejunum (jejunostomy). Enteral nutrition (EN) provides nutrients directly into the gastrointestinal (GI) tract. It is the preferred method to meet nutritional needs when a client is unable to chew or swallow but has a functioning GI tract.

	Appropriate	Not Appropriate
Using a can, fill the feeding bag with enough formula for 24 hours.	☐	☒
Discard the bag and tubing after 24 hours of use.	☒	☐
Place open formula cans in the refrigerator.	☒	☐
Flush the feeding tube before and after feeding.	☒	☐
Elevate the head of the bed for 15 minutes after the feeding.	☐	☒
Verify tube placement before feeding.	☒	☐
Assess gastric residual with every other feeding.	☐	☒

- Intermittent feedings are when the formula is administered every 4-6 hours in 250-400 mL portions, typically over 30-60 minutes.
- Flush the tube with 15-30 mL of warm water before and after intermittent feedings.
- Elevate the head of the bed to at least 30 degrees during feedings and for 30-60 minutes after feedings to reduce the risk of aspiration.
- Assess gastric residual every 4-6 hours during a continuous feeding and before every intermittent feeding.
- Before instilling enteral formula, tube placement must be verified by x-ray.
- Once per shift and prior to feeding, the tube placement must be verified to ensure migration has not occurred.
- Aspiration of gastrointestinal (GI) contents and measuring pH levels are used to verify ongoing placement.
- When using a can of formula, fill the feeding bag with enough formula for 4 hours (if continuous) or the prescribed amount (if intermittent).
- Discard the bag and tubing after 24 hours of use. Place open and unused formula cans in the refrigerator.

Pulmonary aspiration of enteral formula into the lungs can result in lung tissue damage, infection, and pneumonia. *Interventions include:*

- **Verify tube placement** prior to feeding. Check gastric residuals before each feeding.
- **Continuously monitor** the client receiving enteral nutrition for signs of aspiration and/or respiratory distress (severe coughing, dyspnea, cyanosis, crackles, or wheezing). If

aspiration is suspected, stop the feeding immediately and notify the healthcare provider. Suction as appropriate.

- **Elevate the head of the bed at least 30 degrees** during feedings and for 30-60 minutes after feedings to reduce the risk of aspiration.
- **Delayed gastric emptying** increases the risk of aspiration. Medications to increase peristalsis may be prescribed and administered through the feeding tube.

Parenteral nutrition (PN) is a form of specialized nutritional support provided intravenously to clients who are unable to digest or absorb enteral nutrition.

- There are two types of parenteral nutrition: **peripheral and total**.

Total Parenteral Nutrition (TPN)	Peripheral Parenteral Nutrition (PPN)
Nutritionally complete	Nutritionally incomplete
Indicated: • High caloric needs • Long-term therapy is needed • Solution contains more than 10% dextrose	Indicated: • Administer up to 14 days • Short-term therapy only • Solution contains no more than 10% dextrose and 5% amino acids
ONLY administered via a central line.	May use a peripheral IV line.
Common uses: cancer, bowel disorders, critical illness, trauma, burn victims	Common uses: nutritional replacement or supplement

Metabolic complications include dehydration, and fluid overload,

- Hyperglycemia = too much glucose, or sugar, in the blood
- Hypoglycemia = blood sugar level goes below the standard range.
- Hyperkalemia = too much potassium in the blood, above 5.0-5.5 mEq/L for adults
- Hypophosphatemia = low level of phosphate in the blood, less than 2.5 milligrams per deciliter (mg/dL)
- Hypocalcemia = low level of calcium in the blood (not the bones) is too low, normal range is 8.5-10.5 mg/dL

Enteral formula type

Polymeric: Milk-based for clients whose gastrointestinal (GI) tract can absorb whole nutrients

Modular: Single macronutrient that can be added to other foods to meet individual nutritional needs

Elemental: Easily absorbed predigested nutrients

Specialty: Meets specific nutritional needs for liver failure, pulmonary disease, or HIV infection

When preparing to administer formula from a prefilled bag, which actions taken by the nurse are most appropriate?

- assess the client's aspiration risk
- verify proper tube placement prior to feeding administration.

Prior to formula administration, the nurse plans to verify placement of the tube. Which are correct methods of tube placement verification?

- tube placement must be verified by x-ray.