**What is enteral feeding?**

Enteral feeding refers to intake of food via the gastrointestinal (GI) tract. The GI tract is composed of the mouth, esophagus, stomach, and intestines.

Enteral feeding may mean nutrition taken through the mouth or through a tube that goes directly to the stomach or [small intestine](https://www.healthline.com/human-body-maps/small-intestine). In the medical setting, the term enteral feeding is most often used to mean tube feeding.

A person on enteral feeds usually has a condition or injury that prevents eating a regular diet by mouth, but their GI tract is still able to function.

Being fed through a tube allows them to receive nutrition and keep their GI tract working. Enteral feeding may make up their entire caloric intake or may be used as a supplement.

Tube feedings may become necessary when you can’t eat enough calories to meet your nutritional needs. This may occur if you physically can’t eat, can’t eat safely, or if your caloric requirements are increased beyond your ability to eat.

If you can’t eat enough, you’re at risk for [malnourishment](https://www.healthline.com/health/malnutrition), weight loss, and very serious health issues. This may happen for a variety of reasons.

**Some of the more common underlying reasons for enteral feeding include:**

-A [stroke](https://www.healthline.com/health/stroke), which may impair ability to swallow

-Cancer, which may cause fatigue, nausea, and vomiting that make it difficult to eat

-Critical illness or injury, which reduces energy or ability to eat

-[Failure to thrive](https://www.healthline.com/symptom/failure-to-thrive) or inability to eat in young children or [infants](https://www.healthline.com/health/feeding-tube-infants)

-Serious illness, which places the body in a state of stress, making it difficult to take in enough nutrients

**Types of enteral feeding**

According to the American College of Gastroenterology, there are six main types of feeding tubes. These tubes may have further subtypes depending on exactly where they end in the stomach or intestines.

The placement of the tube will be chosen by a doctor based on what size tube is needed, how long enteral feeds will be required, and your digestive abilities.

A medical professional will also choose an enteral formula to be used based on tube placement, digestive abilities, and nutritional needs.

**The main types of enteral feeding tubes include:**

-[Nasogastric tube (NGT)](https://www.healthline.com/health/nasogastric-intubation-and-feeding) starts in the nose and ends in the stomach.

-Orogastric tube (OGT) starts in the mouth and ends in the stomach.

-Nasoenteric tube starts in the nose and ends in the intestines (subtypes include nasojejunal and nasoduodenal tubes).

-Oroenteric tube starts in the mouth and ends in the intestines.

-[Gastrostomy](https://www.healthline.com/health/feeding-tube-insertion-gastrostomy#after-the-procedure) tube is placed through the skin of the abdomen straight to the stomach (subtypes include PEG).

Jejunostomy tube is placed through the skin of the abdomen straight into the intestines.

**Enteral vs. parenteral feeding**

In some cases, enteral feeding may not be an option. If you’re at risk for malnutrition and don’t have a functional GI system, you may need an option called [parenteral feeding](https://www.healthline.com/health/parenteral-nutrition).

Parenteral feeding refers to giving nutrition through a person’s veins. You’ll have a type of venous access device, inserted so you can receive liquid nutrition.

If this is your supplementary nutrition, it’s called peripheral parenteral nutrition (PPN). When you’re getting all your nutritional requirements through an IV, it’s often called total parenteral nutrition (TPN).

Parenteral feeding can be a life-saving option in many circumstances. However, it’s preferable to use enteral nutrition if possible. Enteral nutrition most closely mimics regular eating and can help with immune system function.

**Possible complications of enteral feeding**

There are some complications that can occur as a result of enteral feeding. Some of the most common include:

-[Aspiration](https://www.healthline.com/health/aspiration), which is food going into the lungs

-[Refeeding syndrome](https://www.healthline.com/health/refeeding-syndrome), dangerous electrolyte imbalances that may occur in people who are very malnourished and start receiving enteral feeds

-Infection of the tube or insertion site

-Nausea and vomiting that may result from feeds that are too large or fast, or from slowed emptying of the stomach

-Skin irritation at the tube insertion site

-Diarrhoea due to a liquid diet or possibly medications

-Tube dislodgement

-Tube blockage, which may occur if not flushed properly

There are not typically long-term complications of enteral feeding.

When resuming normal eating, they may have some digestive discomfort as their body readjusts to solid foods.

**NASOGASTRIC TUBE FEEDING**

**Supplies and Equipment**

* Gloves
* Feeding pump (if ordered)
* Clamp (optional)
* Feeding solution
* Large catheter tip syringe (30 mL or larger)
* Feeding bag with tubing
* Water
* Measuring cup
* Other optional equipment (disposable pad, pH indicator strips, water-soluble lubricant, paper towels)

**Steps in Tube Feeding**

The following are the step in administering tube feeding via nasogastric tube.

1 Prepare formula.

2 Explain the procedure to the client. Providing the right information may result to client’s cooperation and understanding.

3 Always check the position of the client. Make sure that the position of the client with a tube feeding remain with the head of bed elevated at least 30 to 40 degrees. Never feed the client with [supine](https://nurseslabs.com/patient-positioning/) position. Semi-Fowler’s or full-Fowler’s position prevents [aspiration](https://nurseslabs.com/risk-for-aspiration/) [pneumonia](https://nurseslabs.com/pneumonia/) and possible death due to pulmonary complications.

4 Check placement of feeding tube by:

A. Aspirating stomach contents. This indicates that the tube is in its proper place in the stomach. The amount of residual reflects gastric emptying time and indicates if feeding should proceed. This contents are returned to the stomach because they contain valuable [electrolytes](https://nurseslabs.com/fluid-and-electrolytes/) and digestive enzymes.

1. Connect syringe to end of feeding tube.
2. Pull back on plunger carefully.
3. Determine amount of residual fluid (clamp tube if it is necessary to remove the syringe).
4. Return residual to stomach via tube and continue with feeding if amount does not exceed agency protocol or physician’s orders.

B. Measuring the pH of aspirated gastric secretions. Gastric contents are acidic, and a pH indicator strip should reflect a range of 1 to 4.

C. Taking an x-ray or ultrasound. This may be needed to determine tube placement. X-ray visualization is the only method that is considered positive.

6 If using a syringe:

6.1 Clamp the gastric tube. Connect the tip of the large syringe, with the plunger or bulb removed, into the gastric tube. Gently pour feeding into the syringe. Raise the syringe 12 to 18 inches above the stomach. Open the clamp. Gravity promotes movement of feeding into the stomach.

6.2 Allow feeding solution to flow slowly into the stomach. Raise and lower the syringe to control the rate of flow. Add additional formula to the syringe as it empties until feeding is complete. Controlling administration and flow rate of feeding solution prevents air from entering the stomach and nausea and abdominal cramping from developing.

**NOTE:** emptying time and indicates whether the feeding should continue. Flushing clears the tube and keeps it patent.

7 Stop feeding when completed. Instil prescribed amount of water. Keep the client’s head elevated for 30 to 1hr. Elevated position prevents the client from [aspiration](https://nurseslabs.com/risk-for-aspiration/) of feeding solution into the [lungs](https://nurseslabs.com/respiratory-system/).

10 Always observe proper hygiene by providing [mouth](https://nurseslabs.com/digestive-system/) care such as brushing teeth, offering mouthwash, and keeping the lips moist. These activities promote oral hygiene and improve comfort.

**Monitoring a Nasogastric Tube**

**Objectives**

* To check the intactness of the tube into the stomach.
* To monitor the flow rate of feeding.

**Charting**

* Intactness of the tube
* Check amount, color, consistency and odor of drainage from Nasogastric tube.
* Patient’s activities and reaction.