

# American Society for Gastrointestinal Endoscopy

## Percutaneous Endoscopic Gastrostomy (PEG)

### What is a PEG?

PEG stands for percutaneous endoscopic gastrostomy, a procedure in which a flexible feeding tube is placed through the abdominal wall and into the stomach. PEG allows nutrition, fluids and/or medications to be put directly into the stomach, bypassing the mouth and esophagus. This brochure will give you a basic understanding of the procedure - how it's performed, how it can help, and what side effects you might experience.

### How is the PEG performed?

Your doctor will use a lighted flexible tube called an endoscope to guide the creation of a small opening through the skin of the upper abdomen and directly into the stomach. This procedure allows the doctor to place and secure a feeding tube into the stomach. Patients generally receive an intravenous sedative and local anesthesia, and an antibiotic is given by vein prior to the procedure. Patients can usually go home the day of the procedure or the next day.



### Who can benefit from a PEG?

Patients who have difficulty swallowing, problems with their appetite or an inability to take adequate nutrition through the mouth can benefit from this procedure.

### How should I care for the PEG tube?

A dressing will be placed on the PEG site following the procedure. This dressing is usually removed after one or two days. After that you should clean the site once a day with diluted soap and water and keep the site dry between cleansings. No special dressing or covering is needed.

### How are feedings given? Can I still eat and drink?

Specialized liquid nutrition, as well as fluids, are given through the PEG tube. If the PEG tube is placed because of swallowing difficulty (e.g., after a stroke), there will still be restrictions on oral intake. Although a few PEG patients may continue to eat or drink after the procedure, this is a very important issue to discuss with your physician.

### Are there complications from PEG placement?

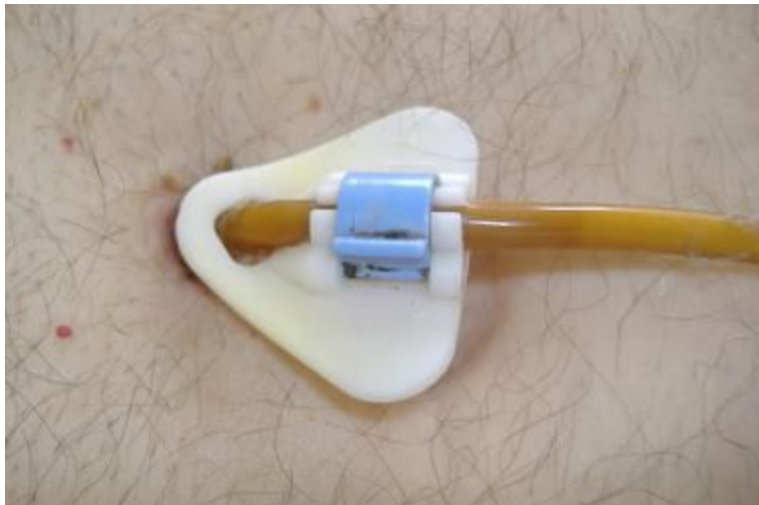
Complications can occur with the PEG placement. Possible complications include pain at the PEG site, leakage of stomach contents around the tube site, and dislodgment or malfunction of the tube. Possible complications include infection of the PEG site, aspiration (inhalation of gastric contents into the lungs), bleeding and perforation (an unwanted hole in the bowel wall). Your doctor can describe for you symptoms that could indicate a possible complication.

### **How long do these tubes last? How are they removed?**

PEG tubes can last for months or years. However, because they can break down or become clogged over extended periods of time, they might need to be replaced. Your doctor can easily remove or replace a tube without sedatives or anesthesia, although your doctor might opt to use sedation and endoscopy in some cases. Your doctor will remove the tube using firm traction and will either insert a new tube or let the opening close if no replacement is needed. PEG sites close quickly once the tube is removed, so accidental dislodgment requires immediate attention.

### **IMPORTANT REMINDER:**

*This information is intended only to provide general guidance. It does not provide definitive medical advice. It is very important that you consult your doctor about your specific condition.*



## **Percutaneous endoscopic gastrostomy facts**

- Percutaneous endoscopic gastrostomy is a procedure that allows nutritional support for patients who cannot take food orally. Percutaneous endoscopic gastrostomy involves placement of a tube through the abdominal wall and into the stomach through which nutritional liquids can be infused.
- Percutaneous endoscopic gastrostomy is a surgical procedure; however, it does not require opening the abdomen or an operating room. Percutaneous endoscopic gastrostomy also does not require general anesthesia.
- Complications of percutaneous endoscopic gastrostomy include infection, leakage of nutritional liquids that are infused and clogging of the tube.
- Percutaneous endoscopic gastrostomy is preferable to surgical gastrostomy

## **What is percutaneous endoscopic gastrostomy (PEG)?**

Percutaneous endoscopic gastrostomy (PEG) is a surgical procedure for placing a tube for feeding without having to perform an open operation on the abdomen (laparotomy). It is used in patients who will be unable to take in food by mouth for a prolonged period of time. A gastrostomy, or surgical opening into the stomach, is made through the skin using an a flexible, lighted instrument (endoscope) passed orally into the stomach to assist with the placement of the tube and secure it in place.

## **Who does percutaneous endoscopic gastrostomy (PEG)?**

Percutaneous endoscopic gastrostomy is done by a physician. The physician may be a general surgeon, an otolaryngologist (ENT specialist), radiologist, or a gastroenterologist (gastrointestinal specialist).

## **Where is percutaneous endoscopic gastrostomy done (PEG)?**

PEG is performed in a hospital or outpatient surgical facility. It is not necessary to perform a percutaneous endoscopic gastrostomy in an operating room.

## **How is percutaneous endoscopic gastrostomy (PEG) performed?**

Local anesthesia (usually [lidocaine](#) or another spray) is used to anesthetize the throat. An endoscope (a flexible tube with a camera and a light on the end) is passed through the mouth, throat and [esophagus](#) into the stomach. The physician then makes a small incision (cut) in the skin of the abdomen over the stomach and pushes a needle through the skin and into the stomach.

The tube for feeding then is pushed through the needle and into the stomach. The tube then is sutured (tied) in place to the skin.

### **When can the percutaneous endoscopic gastrostomy patient go home (PEG)?**

The patient usually can go home the same day or the next morning, unless they are in the hospital for other reasons.

#### [Can I put medications through a PEG tube?](#)

Most medications that come in tablet or pill form can be crushed and dissolved in water and passed through the feeding tube. In addition, there may be liquid formulations of medications that can be prescribed. However, some capsules are designed to dissolve within various portions of the gastrointestinal tract and therefore cannot be broken up. The tube should be flushed with water after introduction of medication to prevent clogging. Ask your doctor or pharmacist about specific medications.

#### [What exact nutritional formula is placed through the PEG tube?](#)

After the PEG feeding tube is placed, a registered dietitian, nurse, pharmacist or physician who specializes in nutrition should assess the patient to determine their nutritional needs; this means the amount of calories, protein, and fluids that will be necessary each day, as well as the most appropriate nutritional formula. Nutritional products designed for tube feeding are formulated to provide all the nutrients the patient will need including vitamins, and minerals.

#### [How is a PEG tube used for feeding?](#)

The PEG tube is relatively narrow. Commercial tube feedings are available and are designed to reduce the risk of tube clogging. The PEG tube should be flushed with water before and after feedings, or after medications have been administered. The placement of table foods into the PEG tube is discouraged as it can lead to tube clogging. It is imperative that the caregiver or patient thoroughly washes their hands with soap and water before preparing formula or having contact with the PEG system.

The commercial tube feeding formula is administered at room temperature. The patient should be upright, no less than thirty degrees, to minimize the risk of regurgitation and potential aspiration (tube feeding getting into the lungs). The patient should be kept upright for thirty to sixty minutes after feeding. To prevent complications (abdominal cramping, nausea and vomiting, bloating, diarrhea, aspiration), tube feeding should be infused slowly.

The simplest method of infusing tube feeding through the PEG tube is called bolus feeding. Tube feed formula is placed within a large syringe and slowly administered to the patient through the plug cap on the end of the PEG feeding tube. In order to meet a patient's nutritional needs, this may need to be repeated 4 to 6 times per day. Sometimes continuous feeding is preferable. With this method, a feeding pump is set up and connected to the PEG tube. The tube feed formula is

placed in a large bag and attached to the pump. The tube feeding is continuously administered by the pump over 12-24 hours.

### How do you take care of a PEG tube?

The area around the incision on the abdominal wall should be cleaned daily and the incision may be covered with clean gauze. Often, these gauze sponges have a slit in them so they can be placed around the PEG tube, over the incision. The tube itself has centimeter markings written on the side. The centimeter marking at or near the incision site should be noted. If this number changes, the tube should be readjusted back to the original centimeter marking. The external bolster should rest gently near the abdominal wall. This external bolster should not be placed too tightly against the abdominal wall or it may lead to infection or skin ulceration.

Should the tube accidentally come out, it must be replaced within twenty-four hours or the incision may begin to close and new PEG procedure may be required. If the tube falls out, a physician should be contacted as soon as possible. A urinary (Foley) catheter can be temporarily inserted into the track to keep it open until a standard PEG tube can be replaced. If the tube needs removal or replacement, it is usually wise to wait 6 or more weeks after insertion before removal.

