



# *Internally Yours*<sup>®</sup>

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**P.E.G. = Percutaneous  
Endoscopic  
Gastrostomy**

Individuals who have lost the ability to swallow, whether following a stroke, due to esophageal tumor, or after surgery involving the neck, cannot ingest sufficient food to maintain adequate nutrition, and in addition are at risk for becoming dehydrated.

Such individuals can be maintained on intravenous feeding temporarily, but it is safer, less costly and more physiologic to provide feeding through the gastrointestinal tract.

Food can be delivered into the intestinal tract through a tube placed into the stomach. Nutritional formulas, pureed foods or a combination of both, can be infused through these feeding tube, either continuously or in larger amounts several times per day. In this fashion, sufficient liquids are delivered to avoid dehydration, and adequate protein and calories are infused to promote tissue healing and growth.

#### **Naso-gastric tube**

The simplest feeding tube to insert is a naso-gastric (NG) tube, which is placed through the nose and downward into the stomach. NG tubes generally work well for short periods, but may eventually cause irritation of the lining of the nose or throat. NG tubes are easily dislodged; they are also very thin and easily become obstructed, requiring tube replacement.

#### **Gastrostomy tube**

A gastrostomy (G) tube bypasses the nose and throat, and is inserted directly through the abdominal wall and into the

stomach. G tubes were traditionally inserted surgically under general anesthesia, but since the 1980s have been placed by using fiberoptic endoscopes, thereby eliminating the need for surgery or general anesthesia. The endoscopic placement of a gastrostomy tube through the skin is called “percutaneous endoscopic gastrostomy” or “P.E.G.” Techniques are also available to insert G tubes using x-ray guidance rather than endoscopy.

Gastrostomy tube insertion carries the potential risks of bleeding, infection or injury to the stomach or other internal organs; however, complication rates are typically low. The most common complication is an infection of the skin around the tube, and this generally responds well to antibiotic therapy. Blood tests are obtained before tube insertion to make sure there is no increased risk for bleeding, and antibiotics are given to minimize the risk of infection.

Once in place, G tubes offer several advantages over NG tubes: they are less likely to become obstructed, and there is no irritation of the nose, throat or esophagus. For patients who regain at least some ability to swallow, it is safer to begin eating and drinking with a G tube in place, than with an NG tube. In such cases, the G tube can be used to supplement what the patient is able to ingest by mouth.

The G tube may be left in place for as long as it is required, but may be easily removed once it is no longer in use.

#### **Care of the gastrostomy tube**

Feedings are typically started at a low rate within 4 hours after tube insertion, and are advanced every 6-8 hours. Full-strength tube feedings should be supplemented with water every 4-6 hours. Medications can also be administered through the feeding tube.

The gastrostomy tube site should be inspected frequently. The external tube bumper should not be overly tightened against the skin. The site should be inspected for signs of infection: redness, swelling or drainage.

For the first week, the skin around the gastrostomy tube should be cleansed twice daily using a quarter-strength peroxide solution, followed by the application of an antibiotic ointment, and then a fresh bandage. After the first week, simple once-daily cleansing with warm soapy water is sufficient, and a bandage is optional. Minor leakage around the tube is not uncommon; significant leakage around the tube should be reported to the physician or nurse.

The feeding tube should be flushed regularly with water to prevent obstruction; infusing small amounts of Coca-Cola will often help unclog a feeding tube.

If a G tube falls out or is pulled out, the physician or nurse should be notified promptly in order to arrange replacement, because the tract through the skin will often close completely within 12-24 hours.