PROCEDURE

Feeding tube insertion - gastrostomy

Gastrostomy is a procedure that places a feeding tube through the abdomen into the stomach.

PURPOSE
Provide nutrition, fluids, and medicines directly into the stomach

PROCEDURE TYPE
Therapeutic; endoscopic, radiologic, or surgical placement

WHERE IT IS DONE
Endoscopy suite, radiology suite, or operating theatre

ANAESTHESIA
Local anaesthetic with sedation; general anaesthesia for some methods

HOW LONG IT TAKES
Usually 20 to 45 minutes

PREPARATION
Fasting, medication review, and possible blood-thinner changes

RECOVERY
Usually same day; no driving after sedation

MAIN RISKS
Infection, bleeding, leakage, aspiration, organ injury

RESULTS
Successful placement confirmed immediately

Overview

A gastrostomy is an opening made through the abdomen into the stomach. A feeding tube placed through it can deliver liquid nutrition, water, and medicines when eating or swallowing is difficult or unsafe.

The most common method is a percutaneous endoscopic gastrostomy, or PEG, guided by a thin, flexible camera passed through the mouth. A tube may instead be inserted using X-ray guidance, called a radiologically inserted gastrostomy (RIG), or during keyhole or open surgery.

A gastrostomy may be temporary or long term. It does not always mean you must stop eating by mouth; this depends on whether you can swallow safely and meet your nutritional needs.

Why the procedure is performed

A gastrostomy may be offered when you need tube feeding for more than a short period and your digestive system can still absorb nutrition. Reasons include:

The aim may be to maintain nutrition and hydration, give medicines, or support treatment and recovery.

- Swallowing problems after a stroke or brain injury
- Neurological conditions affecting swallowing
- Cancer or treatment affecting the mouth, throat, or food pipe
- Difficulty maintaining nutrition because of a long-term condition
- A need to drain stomach contents in selected illnesses

Who should and should not have it

You may benefit if you cannot eat enough safely but your digestive system still works. The decision should consider your likely recovery, nutritional needs, health, and personal goals.

A gastrostomy may be delayed or avoided if you have uncontrolled bleeding problems, infection at the planned site, inflammation inside the abdomen, severe medical instability, or no safe route into the stomach. Abdominal fluid, previous surgery, or an unusually positioned stomach may affect which method is safest.

If your stomach or intestines cannot absorb or move nutrition properly, a small-intestine tube or nutrition through a vein may be considered instead.

For people with advanced illness, including advanced dementia, tube feeding may not improve comfort, function, or survival. Expected benefits, burdens, and comfort-focused alternatives should be discussed before consent.

How to prepare

Follow your facility's instructions because fasting and medication plans vary.

Tell the team about all medicines and supplements, especially blood thinners like warfarin or apixaban , antiplatelet medicines, insulin, and other diabetes medicines. Do not stop prescribed medicine unless instructed.

You will usually need to stop eating and drinking beforehand. The facility will tell you when to

fast and whether clear fluids are allowed. Blood tests may check clotting and general health, and antibiotics like amoxicillin or doxycycline are often given before a PEG.

Arrange for someone to take you home and stay with you after sedation or general anaesthesia. Tell the team about allergies, loose teeth, breathing problems, implanted devices, and previous reactions to anaesthesia.

What happens during the procedure

An intravenous line is usually placed in your arm. Staff monitor your heart rate, blood pressure, breathing, and oxygen level.

For a PEG, sedation makes you relaxed and sleepy, and local anaesthetic numbs the skin. The endoscope is passed through your mouth into your stomach to identify a safe insertion point. A small opening is made through the abdominal wall, and the tube is secured by an internal bumper or balloon and an external support.

Radiologic placement uses X-ray or ultrasound guidance. Surgical placement is usually done under general anaesthesia through keyhole cuts or, less often, a larger incision.

The team checks the tube's position, may apply a dressing, and tells you when feeding can begin.

Recovery and what to expect afterward

Soreness around the site is common for a few days but should gradually improve. Your team will tell you when water, medicines, and liquid feeding can start, often within hours after an uncomplicated placement. Only eat or drink by mouth if your swallowing assessment and care plan allow it.

Keep the site clean and dry, avoid pulling the tube, and follow instructions for flushing it, giving feeds or medicines, and identifying blockage or leakage.

Gentle activity is usually possible soon afterward. Avoid heavy lifting, strenuous exercise, and swimming until healing has started and your team says they are safe.

Do not drive after sedation or general anaesthesia. Follow your facility's restrictions, commonly at least 24 hours without driving, operating machinery, or making important decisions. Return to work depends on your health, discomfort, and whether your job involves physical activity.

Risks and possible complications

Possible complications include:

Later problems can include excess tissue, widening of the opening, or an internal bumper becoming embedded in the stomach wall. Tube care and follow-up help detect these problems early.

- Pain, irritation, or infection around the tube
- Bleeding from the site or stomach
- Leakage of feed or stomach contents
- Aspiration into the lungs
- A reaction to sedation or anaesthesia
- Injury to the stomach, bowel, liver, or another organ
- Infection or leakage inside the abdomen
- Tube blockage, breakage, movement, or accidental removal

Results and follow up

The team usually confirms successful placement immediately and tells you when the tube is safe to use.

Before discharge, you or your caregiver should receive instructions about feeding, flushing, medicines, skin care, and securing the tube. Ask whom to contact if supplies do not arrive.

Follow-up may involve a dietitian, nutrition team, nurse, or clinician. They will review your weight, hydration, feeding plan, tube, and insertion site. Some tubes need planned replacement; others remain until there is a problem or they are no longer needed.

Alternatives

A nasogastric tube passes through the nose into the stomach and is often suitable for short-term feeding. It is easier to insert but may be uncomfortable and easier to dislodge.

A nasojejunal or jejunostomy tube feeds the small intestine and may help if stomach feeding is not tolerated. Modified foods, thickened drinks, supplements, and assisted hand feeding may be options when swallowing remains safe.

Nutrition through a vein may be necessary when the gut cannot be used, but it carries risks including bloodstream infection, blood clots, and metabolic problems.

Choosing not to have a feeding tube is also an option. Comfort-focused hand feeding may better match some people's goals when a tube is unlikely to improve recovery or quality of life.

When to call your healthcare team

Seek emergency help for difficulty breathing, collapse, heavy bleeding, or severe and worsening abdominal pain, especially with a hard or swollen abdomen.

Contact your healthcare team urgently if:

Do not push a dislodged tube back in unless specifically trained. The opening can close quickly, and early replacement through a new tract can injure the abdomen.

Mild soreness, small amounts of early drainage, or supply questions can usually wait for routine follow-up unless they worsen.

- The tube comes out, moves noticeably, or cannot be used
- Feed or stomach fluid leaks heavily around it
- You develop fever with increasing redness, swelling, warmth, or pus
- Pain worsens instead of improving
- You repeatedly vomit or cannot tolerate feeds
- The tube remains blocked after approved flushing steps

Common questions

Will I be asleep?

For PEG or radiologic placement, you are often sleepy from sedation but not fully unconscious. Surgical placement usually requires general anaesthesia.

Can I drive home?

No. Someone must take you home after sedation or general anaesthesia. Follow your facility's driving restriction, commonly at least 24 hours.

How painful is it?

Local anaesthetic reduces pain during insertion, although you may feel pressure or pulling. Soreness afterward should improve over several days.

When can I use the tube?

The team will confirm when feeding, water, and medicines can begin, often within hours after an uncomplicated insertion.

Can I still eat normally?

Possibly. Whether you may eat or drink depends on your swallowing safety and nutritional plan.

When will I know it worked?

Placement is usually confirmed immediately. Changes in weight, hydration, or strength take longer and are assessed during follow-up.

Sources

- National Institute for Health and Care Excellence. Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition . Clinical guideline CG32
- European Society of Gastrointestinal Endoscopy. Endoscopic management of enteral tubes in adult patients, Part 1: Definitions and indications . Endoscopy, 2021
- European Society of Gastrointestinal Endoscopy. Endoscopic management of enteral tubes in adult patients, Part 2: Peri- and post-procedural management . Endoscopy, 2021
- European Society for Clinical Nutrition and Metabolism. ESPEN practical guideline: Home enteral nutrition . Clinical Nutrition, 2022
- American Society for Gastrointestinal Endoscopy. ASGE guideline on gastrostomy feeding tubes: methodology and review of evidence . Gastrointestinal Endoscopy
- American Geriatrics Society Ethics Committee and Clinical Practice and Models of Care Committee. Feeding tubes in advanced dementia position statement . Journal of the American Geriatrics Society, 2014