PROCEDURE

Gastric suction

Gastric suction removes fluid, air, or other contents from the stomach through a tube.

PURPOSE
Remove stomach contents and relieve pressure

PROCEDURE TYPE
Therapeutic bedside procedure using a nasogastric or orogastric tube

WHERE IT IS DONE
Emergency department, hospital ward, operating theatre, or bedside

ANAESTHESIA
None; numbing gel or spray may be used

HOW LONG IT TAKES
Tube placement usually takes 5 to 15 minutes

PREPARATION
Usually none; fasting if planned and clinically safe

RECOVERY
Immediate after removal; no driving restriction without sedation

MAIN RISKS
Misplacement, aspiration, bleeding, and nose or throat injury

RESULTS
Drainage and pressure relief are assessed immediately

Overview

Gastric suction removes air, fluid, blood, or other material from your stomach. It is also called gastric decompression.

A healthcare professional passes a soft tube through your nose and down into your stomach. This is called a nasogastric, or NG, tube. If the nasal route is unsuitable, the tube may pass through your mouth as an orogastric tube.

The tube is connected to a suction machine or drainage container. Suction may be continuous or switch on and off at intervals. The tube may stay in place for several hours or days, depending on why it is needed.

Gastric suction is not the same as gastric lavage, sometimes called stomach pumping. Lavage involves putting fluid into the stomach and removing it again. That is a separate procedure

used only in selected circumstances.

Why the procedure is performed

Gastric suction is most often used to reduce pressure caused by a buildup of stomach contents, gas, or digestive fluid. Removing this material can reduce vomiting, abdominal swelling, and the risk of stomach contents entering the lungs.

You may be offered gastric suction:

It supports treatment but does not usually correct the underlying problem. For example, suction may relieve pressure from an intestinal blockage while your team determines whether the blockage will settle or needs surgery.

Routine gastric suction after every abdominal operation is generally not necessary. Your team should explain the specific expected benefit in your situation.

- For a blocked intestine or an intestine that has temporarily stopped moving
- Before, during, or after selected abdominal operations
- When severe vomiting prevents the stomach from emptying
- To remove blood or secretions in selected cases of gastrointestinal bleeding
- To protect the lungs when stomach contents cannot be managed normally
- To collect stomach fluid for a specific test

Who should and should not have it

Gastric suction may be appropriate when leaving material in the stomach creates more risk or discomfort than placing a tube. The expected benefit should outweigh the discomfort and possible complications.

A tube through the nose is usually avoided after severe facial injury or when a fracture at the base of the skull is suspected. An oral tube or another method may be safer.

Placement may also be avoided, delayed, or performed with specialist guidance if you have:

These issues do not always rule out gastric suction. They may change how and where the tube is placed. In some situations, placement is performed using a camera, imaging, or direct surgical guidance.

- A narrowing, blockage, pouch, or recent operation involving the throat or food pipe

- A recent operation involving the stomach
- Swollen veins in the food pipe, called esophageal varices
- A bleeding disorder or medicines that increase bleeding
- An injury caused by swallowing a corrosive substance
- A condition that makes it difficult to protect your airway

How to prepare

Gastric suction is often needed urgently, so there may be little time to prepare. If it is planned, you may be asked not to eat or drink beforehand.

Tell your healthcare team about previous facial, nasal, throat, food-pipe, or stomach surgery. Also tell them about swallowing problems, frequent nosebleeds, bleeding conditions, allergies, and all medicines you take. This includes blood thinners like warfarin or apixaban .

Do not stop a prescribed medicine unless the treating team tells you to. If you wear removable dentures, you may be asked to take them out.

The treating facility's own instructions take priority because preparation depends on why suction is needed and your other care.

What happens during the procedure

You are usually awake. You will normally sit upright if your condition allows. A numbing gel or spray may be applied to your nose or throat, and the tube may be coated with lubricant.

The professional measures the tube to estimate how far it needs to travel. They gently guide it through a nostril, down the throat, and into the stomach. You may be asked to lower your chin and swallow. Sipping water may help if swallowing is safe for you.

Gagging, watering eyes, coughing, and pressure in the nose or throat are common during insertion. These feelings often ease once the tube is in place.

The tube's position must be checked before it is used. This may involve testing fluid drawn from the tube or taking an X-ray. Simply listening over the stomach while air is pushed through the tube is not a reliable confirmation method.

Once the position is confirmed, the tube is secured to your nose or face and connected to suction or drainage. Staff record what comes out and check that the tube continues to work.

Recovery and what to expect afterward

Pain: Your nose and throat may feel sore while the tube is in place and for a short time after removal. Throat lozenges or mouth care may help when they are safe for you. Tell staff if pain becomes severe or the tube feels as though it has moved.

Eating: You may need to avoid food and drink while suction continues. This is usually because of the condition being treated, not only because the tube is present. Your team will tell you when you can restart fluids and food.

Activity: You may be able to sit up and walk with assistance, but the suction tubing and your underlying illness may limit movement. Do not adjust, reconnect, or remove the tube yourself.

Driving: Gastric suction itself does not usually require sedation, so it does not automatically prevent driving after the tube is removed. However, do not drive if you received sedating medicine, are taking medicines that affect alertness, or remain unwell.

Work: Returning to work depends mainly on the reason you needed suction. After brief suction without sedation, no special recovery period may be required. A bowel obstruction, operation, or hospital admission usually requires more time away.

Risks and possible complications

Gastric suction is common, but tube placement and ongoing suction can cause problems.

Possible complications include:

Correct position checks reduce the risk of using a misplaced tube. Staff also monitor drainage, fluid balance, blood tests, and the skin around your nose when suction continues.

- Soreness, pressure, gagging, or a nosebleed
- Irritation or injury to the nose, throat, food pipe, or stomach
- Tube placement in the airway instead of the stomach
- Vomit or stomach contents entering the lungs, called aspiration
- Blockage, movement, or accidental removal of the tube
- Loss of fluid and body salts if large amounts are removed
- Pressure injury where the tube rests against the nostril
- Bleeding or, rarely, a tear in the digestive tract

Results and follow up

Suction begins removing stomach contents as soon as the correctly positioned tube is connected. Your team will assess the amount and appearance of the drainage, changes in abdominal swelling, nausea or vomiting, and whether you feel less pressure.

Gastric suction does not always provide a final diagnosis. Blood tests, scans, endoscopy, or surgery may still be needed to identify or treat the underlying problem. If a sample was sent to a laboratory, those results may take longer.

The tube is usually removed when drainage has reduced and your stomach or intestine can manage fluids again. Removal is quick. You may be asked to take a breath while the tube is gently pulled out.

Routine follow-up may include checking that you can drink, eat, pass gas, or have a bowel movement, depending on the reason for treatment. Follow-up after discharge focuses on the condition that made suction necessary.

Alternatives

The alternatives depend on what gastric suction is meant to achieve.

Observation, intravenous fluids, and medicines for nausea may be enough when symptoms are mild and there is no dangerous buildup. This avoids the discomfort of a tube but does not directly remove stomach contents or pressure.

An orogastric tube can be passed through the mouth when the nasal route is unsafe. It provides similar drainage but may be less comfortable while you are awake and can interfere with speaking and mouth care.

Endoscopic placement uses a flexible camera to guide the tube. It may be safer when the anatomy is difficult, but it requires specialist equipment and may involve sedation.

A venting gastrostomy drains the stomach through a tube placed through the abdominal wall. It can help with long-term or repeated decompression but is more invasive and has procedure-related risks.

Surgery may be needed when there is a complete blockage, damaged bowel, perforation, or another problem that suction cannot correct. Surgery can treat the cause but involves anaesthesia, a longer recovery, and greater procedural risk.

Choosing no suction may be reasonable in some situations, including when it would not meet your care goals. The trade-off may be continued vomiting, pressure, or aspiration risk. Your

team should explain what is likely with and without the procedure.

When to call your healthcare team

While the tube is in place, tell staff promptly about increasing nose or throat pain, repeated vomiting, new abdominal swelling, a blocked tube, skin injury, or drainage that suddenly changes.

Seek emergency help for:

After discharge, contact your healthcare team urgently if vomiting returns, you cannot keep fluids down, your abdomen becomes increasingly swollen, you develop a fever, or pain is getting worse rather than improving.

Questions about eating, bowel movements, test results, or a planned review are usually suitable for routine follow-up unless they occur with urgent symptoms.

- Severe trouble breathing, choking, or blue or grey lips
- Sudden chest pain
- Coughing up or vomiting a large amount of blood
- Severe or rapidly worsening abdominal pain
- Fainting, marked confusion, or difficulty waking

Common questions

Will I be asleep?

Usually not. Most gastric suction tubes are placed while you are awake without sedation. Numbing gel or spray may reduce discomfort. Sedation may be used if placement is performed during another procedure.

Can I drive home?

The tube itself does not usually create a driving restriction. You should not drive if you received sedation, are taking medicines that reduce alertness, or are still unwell. Many people needing gastric suction remain in hospital for treatment.

How painful is it?

Insertion is usually uncomfortable rather than sharply painful. Gagging, nasal pressure, watering eyes, and a sore throat are common. Severe pain is not expected and should be reported immediately.

When will I know if it worked?

Drainage starts immediately after the tube's position is confirmed. Relief from pressure or vomiting may also begin quickly. Knowing whether the underlying condition has improved may require observation, scans, or other tests.

How long will the tube stay in?

Placement takes only a few minutes, but suction may continue for hours or days. The tube is removed when ongoing drainage is no longer needed and your digestive system can manage fluids safely.

Can I eat or drink with the tube in?

Often not, especially when the stomach or intestine needs rest. In some circumstances, limited fluids or another form of nutrition may be allowed. Follow the instructions given for your specific situation.

Sources

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- Cleveland Clinic: Nasogastric Tube-What It Is, Uses, Types
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