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Gastrostomy Tubes

What is a gastrostomy tube?

A gastrostomy tube, also known as a “G-tube”, is a tube that is inserted through the abdomen and delivers nutrition directly into the stomach. A G-tube is surgically placed and provides proper nutrition (the right amount of fats, protein, carbohydrates, vitamins, minerals, and fluids) and medication when infants and children are unable to eat enough nutrients by mouth.

Who needs a gastrostomy tube?

Some children have medical problems that make it difficult for them to take in enough nutrition by mouth. There are different health reasons why a child might need a G-tube, including the following:

- Children can have structural problems in different parts of the gastrointestinal (GI) tract. Medical issues related to different parts of the GI tract include:
 - Mouth—Cleft lip/cleft palate, sucking/swallowing disorders (these can lead to respiratory problems), eating aversion, hypersensitive response to oral stimulation;
 - Esophagus—Narrowing (called stricture) of the esophagus, vomiting, acid reflux (called gastroesophageal reflux), abnormal connection between the trachea and esophagus (called tracheoesophageal fistula);
 - Stomach—Delayed emptying of the stomach (called gastric emptying), gagging, retching;
 - Small intestine—Short bowel syndrome, other problems absorbing nutrients through the intestines (called malabsorptive disorders).
- Failure to thrive—Some children have trouble gaining weight or growing normally.
- Extreme difficulty taking medications.

How do I prepare for a gastrostomy tube?

Before the G-tube procedure, your medical provider may perform imaging of part of your child’s GI tract to help guide the surgery. An example of a common imaging study is an X-ray of the upper GI tract.

You will meet with a GI provider or surgeon before the G-tube procedure. They will be able to answer any questions you have about a G-tube and its surgical placement. If there is something that you do not understand about the G-tube or the procedure, it is important to ask your healthcare provider before placement.

Your child's doctor will provide instructions for when your child needs to stop eating or drinking before the procedure. It is important for you to follow these directions carefully. When you arrive at the hospital, the provider will go over the procedure again and answer any questions you might have.

Your child will be under anesthesia during this procedure, so they will not remember or feel the tube being placed. The anesthesiologist (who sedates your child during the procedure) will ask when your child last ate or drank and will review their medical history. Prior to the procedure, the medical team will set up monitors to measure your child throughout the procedure, such as your child's heart rate and blood pressure. The medical team also will place an intravenous (IV) line to administer medicines and anesthesia to your child.

Your child will be taken to the operating room for placement of the tube, and parents or guardians will be taken to a waiting room until the procedure is finished.

What happens during insertion of a gastrostomy tube?

There are three different methods for G-tube insertion. Sometimes a combination of these methods is used.

- Laparoscopic technique—This is done by making two small incisions in the belly. One incision is where the surgeon inserts the G-tube. The other incision is used for the surgeon to see the stomach and other organs to make sure the G-tube is in the right place.
- Percutaneous (through the skin) endoscopy gastrostomy (PEG)—This is the most common technique for G-tube placement. An endoscope (a thin, flexible tube with a light and camera on the tip) is inserted into the mouth and down to the stomach so the doctor can properly place the G-tube.
- Open surgical procedure—This is done when the other two methods are not a good choice for G-tube placement. This may be because the child requires another surgery at the same time of the G-tube placement or if the child has scar tissue from a previous procedure.

What happens after insertion of a gastrostomy tube?

After the G-tube is inserted, your child will stay in the hospital typically for one to two days. While in the hospital, your child will receive pain medicine as needed.

During your hospital stay, nurses will teach you how to:

- Care for the tube and surrounding skin so the site remains clean and infection-free.
- Handle potential problems such as the tube falling out. This is important because if the tube falls out, the hole can close up.
- Give nutrition through the tube. Your child also may meet with a dietician who will teach you what, when, and how to feed your child.

When your child is discharged from the hospital, you should leave with detailed instructions about home care, including bathing, dressing, physical activity, giving feedings and medications through the tube, and how to vent (release gas) from the tube. You should have a follow-up visit with your healthcare provider scheduled so they can assess the child's weight along with placement and condition of the tube.

Are there any risks from a gastrostomy tube placement?

There are risks with any procedure. Before G-tube insertion, the medical team should discuss these risks with you along with how to minimize them. If you have questions or concerns, it is important to ask the medical team before the procedure.

Complications from surgery can include:

- Granulation tissue (excess skin that is pink or red) coming out from around the tube
- Leaking, dislodged, or clogged tube
- Infection at the tube site (redness, swelling, foul-smelling yellow-green drainage, warmth at tube site, fever)
- Excess bleeding or drainage at tube site
- Trouble passing gas or having a bowel movement

If any of the above occur, call your healthcare provider immediately so complications can be treated quickly and effectively.

What can parents do to help after a gastrostomy tube insertion?

Children have few to no restrictions after the G-tube site heals. It is important for parents to wash hands frequently before and after touching the G-tube to prevent infection.

Sometimes children may be nervous about how their G-tube looks, or they may be worried about what others will say about their G-tube. Your medical team may recommend a social worker who can help. If you have questions or concerns, you can always call your medical team for help.

Can a gastrostomy tube be removed?

If and when your doctor decides that your child can eat and drink enough by mouth, the G-tube may be removed. This is a quick procedure that can be done in the clinic office by a doctor or nurse. After the G-tube is removed, a small hole will remain and usually will close on its own in 2–4 weeks.

The hole can be covered with gauze and kept clean until it closes. Sometimes, surgery is required to close the hole. After the G-tube hole closes, a small scar may remain.

References

Berman, L. (Ed.). (2019, July). Gastrostomy Tube (G-Tube) (for Parents) – Nemours KidsHealth. Retrieved April 14, 2020, from Source. (<https://kidshealth.org/en/parents/g-tube.html>)

Children's Hospital of Philadelphia. (2014, May 12). Gastrostomy Tubes (G-Tube). Retrieved April 14, 2020, from Source. (<https://www.chop.edu/treatments/gastrostomy-tubes>)

Children's Hospital Wisconsin. Feeding your child with G-tube. (n.d.). Retrieved April 14, 2020, from Source. (<https://www.chw.org/medical-care/gastroenterology-liver-and-nutrition-program/tests-and-treatments/g-tube-care-notebook/feeding-your-child-with-g-tube>)

Fleet, S. E., & Duggan, C. (2020, January 1). Overview of enteral nutrition in infants and children. Retrieved April 14, 2020, from Source. (https://www.uptodate.com/contents/overview-of-enteral-nutrition-in-infants-and-children?search=gtube&source=search_result&selectedTitle=5~150&usage_type=default&display_rank=5)

Dowshen, S. (Ed). Gastrostomy Tube (G-Tube): Nemours. (n.d.). Retrieved April 14, 2020, from Source. (<https://www.nemours.org/patientfamily/khlibrary/articles/g-tube.html>)

Johns Hopkins ALL Children's Hospital. (n.d.). Gastronomy tube (G-tube). Retrieved April 14, 2020, from Source. ([https://www.hopkinsallchildrens.org/Patients-Families/Health-Library/HealthDocNew/Gastrostomy-Tube-\(G-Tube\)](https://www.hopkinsallchildrens.org/Patients-Families/Health-Library/HealthDocNew/Gastrostomy-Tube-(G-Tube)))


Motil, K. J., & Duryea, T. K. (2019, November 12). Poor weight gain in children younger than two years in resource-rich countries: management. Retrieved April 14, 2020, from Source. (https://www.uptodate.com/contents/poor-weight-gain-in-children-younger-than-two-years-in-resource-rich-countries-management?search=TYPES OF G-TUBES IN CHILDREN&source=search_result&selectedTitle=6~150&usage_type=default&display_rank=)

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