Let's Talk About...

Nissen Fundoplication
(Surgery for GERD)

What is a Nissen Fundoplication?

A **nissen fundoplication** (niss-en fun-doe-ply-KAY-shun) is surgery to fix **gastroesophageal** (gas-troh-eh-sof-uh-gee-ul) **reflux disease (GERD**).

What is GERD?

Usually, when a person eats or drinks, food goes from the mouth, down the esophagus (the tube that carries food from the mouth to the stomach), and then into the stomach. There is a little valve between the esophagus and stomach that keeps the food from flowing backwards. When a person has gastroesophageal reflux, or GERD, the valve does not work. The person eats and the liquid or food flow backwards from the stomach into the esophagus.

A small amount of reflux in babies is normal. It often happens when the stomach is too full. If babies are born prematurely or have other medical problems, the valve between the stomach and the esophagus may be weaker.

A small amount of reflux in other children is normal. Often, it can be controlled by giving smaller feedings more often, burping, and keeping the child in an upright position after she eats.

Severe reflux is when child develops problems with the esophagus, sore throat, lung problems, difficulty feeding or the child cannot gain weight. Medicine may be helpful, in severe reflux.

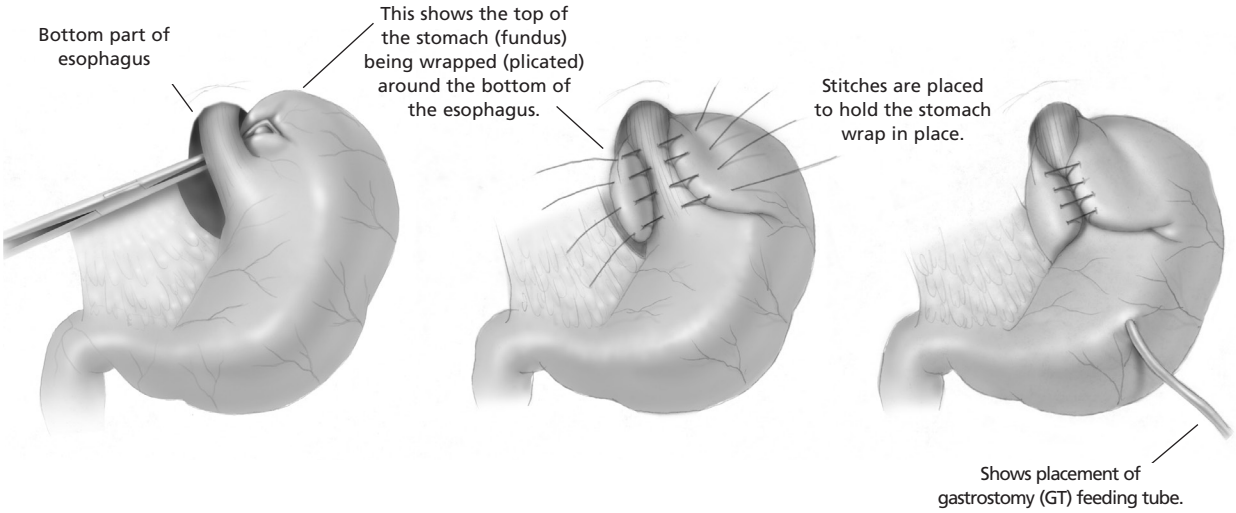
If medicines do not control the problems caused by GERD, the child may need surgery. A nissen fundoplication is the operation most often used to control GERD in children.

What happens during surgery?

Your child will receive general anesthesia (medicine to help her sleep during the surgery). A doctor (called an anesthesiologist) will talk with you before the surgery about what to expect and any possible side effects.

During the Nissen Fundoplication surgery, the surgeon wraps (plicates) the top of the stomach (also called the fundus) around the bottom of the esophagus and stitches it in place (see the pictures below). You may hear this called a "wrap."

There are two types of surgery: **open surgery** and **laparoscopic** (lap-ah-ruh-SCOPP-ick) surgery. The surgery is the same, but the incisions (cuts to do the surgery) are different.



- In **open surgery,** the surgeon makes a cut about 3 to 4 inch long through the skin and muscle of the belly. After surgery, the surgeon closes the opening with stitches and paper tapes called steristrips. The stitches are usually absorbed by the body, so they do not need to be removed later.
- In laparoscopic surgery, the surgeon makes five small openings. Each one is about ¼–inch long. After surgery, the surgeon covers the openings with steristrips.

How does the surgery work?

After the surgery, as your child's stomach fills with food and liquid, the wrap also fills. This puts pressure on the esophagus so that liquid and food cannot flow back into the esophagus. Liquids and small pieces of well- chewed food can still enter the stomach when your child swallows. Children who have feeding difficulties have a gastrostomy (GT) feeding tube placed. The surgeon will let you know if your child needs a GT.

What happens in the hospital?

When your child comes back from the operating room, she will have a tube in her nose that goes down into her stomach. This tube, called a nasogastric (or NG) tube, keeps the stomach empty. The tube will need to stay in place for two to three days until her stomach can empty again.

After the stomach recovers, your child can have small amounts of clear liquids, then thick liquids, and then soft foods. Once your child is eating well, she can go home. Children usually stay in the hospital five to seven days for open surgery, and three to five days for laparoscopic surgery. If your child does not eat by mouth, she will receive food and liquids through a gastrostomy tube.

Are there complications with this surgery?

After surgery, your child will not be able to burp or vomit. The stomach will have some swelling after surgery. Until the stomach swelling goes down, the wrap may feel tight and make it difficult to swallow. This is why your child should have soft foods and liquids until the swelling is gone. Even after the swelling is gone, if your child's stomach becomes too full, she may feel or pressure that may cause gagging. This is called gas bloat and it usually resolves after a few weeks.

Rarely, this surgery causes bleeding and infection.

What can my child do at home?

It is okay to get the steristrips wet. Gently pat the paper tapes to get them dry. Older children may take showers after a day at home. The steristrips will fall off in 10 to 14 days.

Your child must eat soft, easily chewable foods for a few weeks. Do not let her have carbonated beverages, tough pieces of meat, or bread during this time.

If your child had open surgery, limit her activity to walking until she sees her doctor two weeks later. If your child has a laparoscopic surgery, she may return to normal physical activity at any time.

When should I call my child's doctor?

Call your child's doctor if:

- You notice any signs of infection around your child's healing area, such as redness, pus or draining fluids.
- Your child has a temperature more than 101° F.

Please feel free to contact the Primary Children's Medical Center Surgery Office at 801.662.2950 with any questions or concerns.

Intermountain Primary Children's Medical Center
The Child First and Always®

© 2012 Intermountain Healthcare, Primary Children's Medical Center. All of the information contained in the ***Let's Talk About . . .*** series is for educational purposes only. This educational information is not a substitute for medical advice or for care from a physician or other health care professional. If you have questions about your child's health, contact your health care provider.

Pediatric Education Services, 801.662.3500 | Rev. 11/12, LTA520407981 | *Available in Spanish*