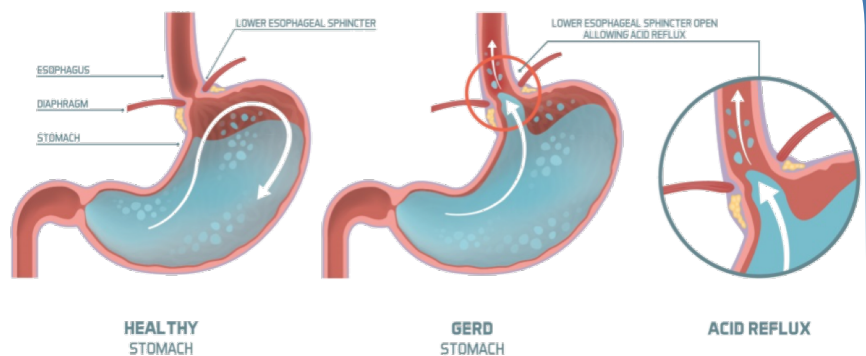


## PATIENT AND FAMILY INFORMATION SHEET

### GASTROESOPHAGEAL REFLUX DISEASE (GERD)

#### What is GERD?

The tube that goes from the mouth to the stomach is called the “esophagus”. It is where food and liquid go once it is swallowed. At the end of the tube is a muscle called a “sphincter” that opens to let food and liquid into the stomach and then it closes. The stomach has acid in it. When the muscle does not close, food and fluid and acid can go back up the tube. This is called “gastro-esophageal reflux” (GER). Babies can have this problem but usually it can go away by 18 months of age.



Sometimes GER may cause more problems like pain or trouble swallowing. Growth and weight gain may be slower. Breathing troubles may also be seen. If this happens, it is called “gastro-esophageal reflux disease” (GERD). Children with GERD may need different feeding plans or they may need to take medicine. If this does not work the child may need an operation to fix the problem.

#### How do I know if my child has GERD?

*Here are some of the symptoms your child may have:*

You may see some of these things:

- Crying for more than 3 hours a day
- Child seems to be in pain
- You hear changes in the cry or the voice
- Child gags or seems to have trouble getting the food or liquid down
- Child arches the back when eating, or right after
- Child is fussy when eating, or right after
- Child does not want to eat or turns the head away
- Child throws up a lot
- Trouble gaining weight
- Coughing or wheezing
- Recurrent pneumonia
- Apnea spells

## PATIENT AND FAMILY INFORMATION SHEET

### **GASTROESOPHAGEAL REFLUX DISEASE (GERD)**

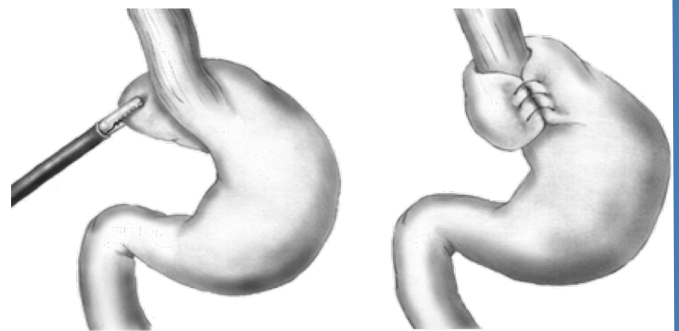
#### **How do I know if my child needs an operation?**

Children who have signs of GERD that do not get better or go away with medicine may need an operation. Your child's doctor may send you to a surgeon. The surgeon will do tests before planning treatment options. Any of the following tests may be ordered:

- **Modified Barium Swallow:** This test looks at how your child swallows. It also makes sure your child does not choke when eating. The test is done in x-ray. A speech therapist will be there during the test to help administer food and interpret the results.
- **Upper Gastrointestinal Series (UGI):** This test looks at your child's organs (food tube, stomach and intestines). A small amount of liquid will be given to your child to drink. This test is done in x-ray.
- **Gastric Emptying Scan (GE Scan):** This test looks at how fast food gets out of your child's stomach after eating. This test is done in x-ray.
- **Ph Probe or Impedance Probe Study:** This test looks at how much acid is in your child's food tube. A small tube will be placed through your child's nose. An x-ray may be done to make sure the tube is in the right place before the test starts. The tube will be plugged into a special machine that looks for reflux over many hours. When the test is over, the tube will be removed.
- **Upper Gastrointestinal Endoscopy (EGD):** This test looks at the food tube. A long bendable tube with a light and a camera on it look at the child's food tube, stomach and a small part of the bowel while your child is asleep. Small pieces of tissue may be taken to look at in a lab ("biopsy"). This test may be done by a "GI" doctor ("gastroenterologist").

#### **How is GERD treated?**

The operation to fix GERD is called a "fundoplication" or "wrap". There are different ways to do this operation, but the most common is called "Nissen Fundoplication". The upper part of the stomach is wrapped around the lower part of the food tube ("esophagus"). This helps to prevent reflux of food and acid back into the food tube.



#### **What happens before the operation?**

- Your child will be admitted to the hospital
- Your child will not be able to eat or drink anything for 6 – 8 hours before the surgery. The staff will tell you if you can give clear liquids up to 2 hours before the operation
- Your child will go to a special room before the operating room (Pre-operative Area):
  - You will meet the doctor who will help your child be comfortable and asleep during the operation ("anesthesiologist").
  - You will meet the doctor who will do the operation. The operation will be explained to you. You can ask any questions. You will sign a paper that gives your permission for the operation ("consent form").
- Your child will have a small tube placed in their hand or arm ("Intravenous/IV"). Fluids will be given through this tube during the operation. Medicines can also be given through this tube.



## PATIENT AND FAMILY INFORMATION SHEET

### ***GASTROESOPHAGEAL REFLUX DISEASE (GERD)***

#### **What happens during the operation?**

The anesthesiologist will give medicine which will help your child be in a deep sleep during the operation. Your child will not feel any pain and will not remember the operation. Your child will be watched very closely the whole time.

There are two ways to do the operation:

- Laparoscopic: 3 or 4 small cuts are made in the belly. A tiny camera is used to see the organs and do the operation.
- Open: 1 bigger cut is made in the belly to open it and do the operation.
- Once the operation is done, the stomach will be 25% smaller.
- Your child may have a harder time vomiting and burping
- A small tube may be put through the nose, into the stomach, to help gas and fluid to get out (“nasogastric/NG tube”).
- Other children have a tube placed into the stomach through a small cut on the belly (gastrostomy/G tube”). This can also help gas and fluid to get out of the stomach. It can also be used for giving feedings and medicine

#### **What happens after the operation?**

- As soon as the operation is over, your child goes to another room to wake up (“post anesthesia recovery room/PACU” or “recovery room”). Your child may be in this room for 1 -2 hours. Someone will call you when you can go and be with your child.
- Someone will be checking your child many times. They will take their temperature, blood pressure and listen to their lungs and belly. They will want to know if the child passes urine or gas.
- If an NG or G tube was placed in the operation, the tube will be hooked up to a bag or a plastic container that gas and fluid can come out. Your child will have a bag of fluid going through the IV.
- Your child will go to another room in the hospital when ready.
- Your child may seem very sleepy for the first day. Medicine will be given for pain if needed.
- Make sure to ask your nurses any questions that you have.

#### **After the operation (Day 1-2):**

- After the operation your child will be checked frequently. Nurses will make sure the belly is soft and check what is draining out of the tubes. Staff will ask about bowel gas or farts. All of this information will help staff to know when it is time to start feedings. Every child’s feeding plan will be different. Staff will tell you which plan is best for your child based on the operation they had.
- If your child has an NG tube it will come out when it is no longer draining. Your child will be allowed small sips of clear liquids. He/She will slowly be given more if everything is going well.
- If your child has a G tube it may be clamped off the tube when it isn’t draining much. He/She will start getting small amounts of liquids through the tube. He/She will slowly get more if everything is going well. Some children with a G tube can also take small amounts of liquids by mouth.
- Getting your child out of bed to a chair and walking a few times a day will help advance their diet more quickly.



## PATIENT AND FAMILY INFORMATION SHEET

### ***GASTROESOPHAGEAL REFLUX DISEASE (GERD)***

#### **What happens after the operation?**

- Your child will still get medicine for pain if needed. Nurses will let you know if it can be given by mouth, or through the G tube. All medicines should be liquid or crushed if given into the stomach.
- Your child will still get IV fluids. These will be stopped when staff are sure your child is staying hydrated by oral/G tube liquids

#### **After Surgery Days 2-5:**

- Once your child is doing well with clear liquids they will be allowed full liquids (milk products, formula). If that goes well they can move on to pureed and then soft foods. Small, frequent feedings of pureed foods (examples: baby or blenderized food, smoothies) are best at first then soft feedings (examples: scrambled eggs, mashed potatoes, pudding, apple sauce) can be offered. Every child is different, but it may be weeks before your child will be able to eat a soft diet. Some children will only be fed liquid formula by the G tube.
- It is normal if your child feels full more quickly. Tell your child to eat and drink slowly, chew foods and take sips of liquids between bites of food. Do not use straws. Do not give fizzy drinks or anything too hot or too cold. Do not give chunks of foods that could get stuck (examples: meat, hot dogs, sausage, hard vegetables, hard candy).
- The dietician or staff will discuss the post-Nissen diet with you and will give you a list of safe food and drink ideas for your child.
- If your child is only fed through the G tube, the feedings will be increased slowly. This usually happens over a few days. Remember that your child may have difficulty burping. Make sure to open the G tube before and after feeding to allow gas to escape. Open it during or between feedings if your child seems fussy, in pain or is gagging. This will let the gas out.

#### **When can we go home?**

Your child will be able to go home when he/she is:

- Taking the full liquids/soft foods well
- Drinking enough fluid
- Passing urine
- Passing gas or stool (poop)
- Taking medicines by mouth or G tube
- You have been taught how to use supplies needed at home

#### **How much time should I plan to be out of work?**

- You should plan to take enough time off to be with your child in the hospital and one week at home.
- If you have papers (FMLA) that need to be signed, please bring them with you to the hospital. Your child's team will help fill these out for you.





## PATIENT AND FAMILY INFORMATION SHEET

### ***GASTROESOPHAGEAL REFLUX DISEASE (GERD)***

#### **How do I care for my child at home?**

##### ***Wound care and bathing:***

- Your child will have cuts on the belly. Keep the dressings clean and dry until they are taken off after the operation. There will be little pieces of tape that will stay on over the cuts. These will curl up and fall off on their own, or you can remove them in two weeks.
- Your child can have a bath or shower two days after the operation. Do not soak in the tub or allow water to cover the G tube immediately after surgery. Your surgical team will tell you when your child can take a bath and swim after their operation. There are many stitches on the inside that you cannot see. They will go away on their own.

##### ***Feeding:***

- Your child may have problems swallowing for a few weeks after the operation. This is from the swelling inside that takes time to heal. Give your child small, frequent amounts of their prescribed diet.
- Have your child sit up while eating and keep sitting up for 20-30 minutes after a meal. Remind your child to take small bites, chew well and eat slowly. Do not give foods that are hard and could get stuck. Be sure the child swallows the first bite before taking another one. Sipping water with meals may help food go down more easily.

##### ***Activity:***

- Your child may return to school/daycare within one week of operation. Your child should not do any sports or gym class for 2 – 3 weeks after the operation. Quiet play is best in the beginning (reading, coloring, videos, board games).

##### ***Medicine:***

- Your child may need acetaminophen (Tylenol) or ibuprofen (Motrin or Advil) or other pain medicine once they go home. Staff will give you a list of the correct medications and doses prior to discharge. Liquid or crushed medicines are best as pills more easily get stuck. Medicines that your child took before the operation should be changed to the liquid form.

#### **When should I call the office?**

- Call the surgeon's office the day you get home to set up an appointment for 2 – 4 weeks after the operation.
- Call if your child has a temperature over 101.5 F, has redness, swelling or fluid around the cuts, has belly pain, gagging, or throwing up.
- If your child gets sick he/she may be able to throw up if there is a lot of pressure in the stomach. If your child is throwing up a lot, even when not sick, call your surgeon.
- Please call the office with any question or concern you may have.



## PATIENT AND FAMILY INFORMATION SHEET

### ***GASTROESOPHAGEAL REFLUX DISEASE (GERD)***

*Your child will need to follow up with the surgeon. You will receive specific instructions for follow up when your child is discharged.*

Please don't hesitate to call our office if you have any problems or concerns.

Surgeon: \_\_\_\_\_

Nurse Practitioners: \_\_\_\_\_

Phone Number (daytime): \_\_\_\_\_

Phone Number (after hours): \_\_\_\_\_

Social Worker: \_\_\_\_\_

Supply Company: \_\_\_\_\_

***Thank you for allowing us to care for your child.***