

700 Children's Drive  
Columbus, Ohio 43205-2696  
nationwidechildrens.org

## ESOPHAGEAL pH MONITORING

Esophageal pH monitoring is a test that measures the amount of time your child has stomach acid coming back up into his esophagus (gastroesophageal reflux disease or GERD). A small acid sensitive probe measures the acid for 24 hours. Some reflux of stomach acid into the esophagus is normal, but if it happens more often than normal or for long periods of time, it may cause discomfort, weight loss, vomiting, or irritation to the lining of the esophagus.

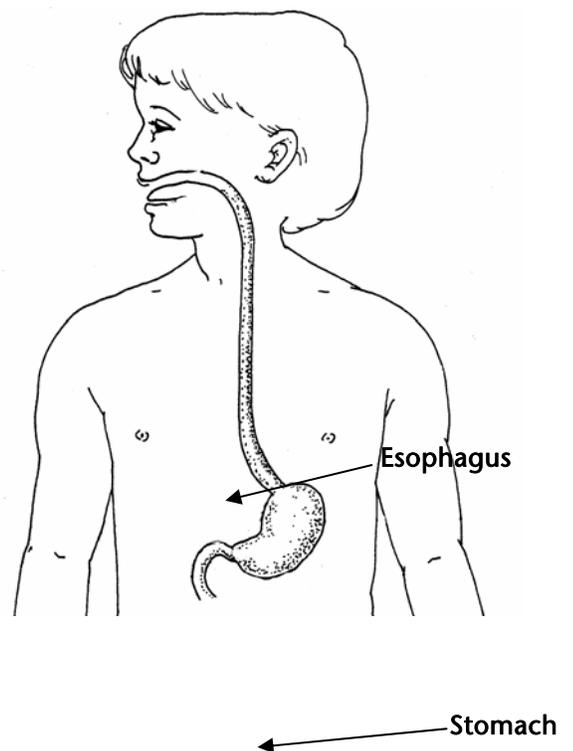
### HOW TO PREPARE FOR THE TEST

- If your child is 1 year of age or older, he should not eat or drink for 4 hours before the test.
- If your child is less than 1 year old, he may have formula or juice until 2 hours before the test.
- **Check with your child's doctor to see if any medicine should be stopped before the test.**

### HOW THE TEST IS DONE

- Small children will be wrapped in a blanket to prevent them from struggling and pulling the probe out while it is being placed.
- The nurse will pass a small flexible tube (about the size of a spaghetti noodle) down your child's nose and into the esophagus. It will be somewhat painful as the probe passes through the nose. Most children gag as the probe goes down. Because the blood vessels of the nose are fragile, there may be a small amount of bleeding from the nose as the probe is passed. Once the probe is down most children do fine.
- The probe will be taped to your child's face.

APPOINTMENT	
Child's Name _____	
Date _____	Time _____
Registration Time: _____	
<input type="checkbox"/> <b>GI Procedure Room</b> - Enter the hospital through the Outpatient Care Center, 555 South 18 <sup>th</sup> Street. (You may ask at the Information Desk in the lobby for directions to the GI Procedure Room.) Follow the circles on the left side of the lobby floor to the elevators on your left marked A1 and A2. Take the elevator to the 2 <sup>nd</sup> floor and turn left. You will see a sign for <b>GI Procedures</b> . Register your child at the reception desk.	



**Picture 1** The upper GI system inside the body.

## HOW THE TEST IS DONE (Continued)

- If your child is an infant or toddler, long sleeves that keep their arms straight may be used. This is done so patients can use their hands but not reach their face to pull the probe out.
- The probe is then connected to a recording box that will measure and record when acid comes up into the esophagus.
- The recorder is lightweight, and about the size of two decks of cards.
- A chest x-ray is done to make sure if the probe is in the correct position. After the chest x-ray is taken, it will take about 30 minutes to get the results and decide if the probe needs to be adjusted. The probe may need to be moved in or out slightly but rarely needs to be taken out and replaced.
- Your child will need to leave the probe in place and carry the recording box for 24 hours.
- Your child will be able to eat his regular foods. A diary needs to be kept during the study to record meal times, activity, medicines, and problems your child is having from reflux.

## WHERE THE TEST IS DONE

pH Monitoring can be done at home or in the hospital.

- **If your child needs to stay in the hospital** for the pH study, he will be admitted to the hospital and will go to the GI procedure room to have the probe placed. The next day a GI nurse will come to your child's room and remove the recording box. If the study was done correctly, your child's nurse will remove the probe. If the study needs to run longer, the recording box will be replaced. Your child's nurse will monitor the test and keep the diary.
- **If your child will be having the pH study done at home**, you will be asked to come to the GI Procedure Room to have the probe placed. We will teach you how to monitor the test and keep the diary. You will return the next day to the GI procedure room to have the probe removed.



Picture 2 Having a pH Study.

## WHAT HAPPENS IF THE PROBE COMES OUT

- If your child is in the hospital, your child's nurse will put the probe back in and get a chest x-ray. If your child is almost done with the study when the probe comes out, it may not be put back in.
- If your child is at home when the pH probe comes out and it is before 8:00 pm, call the hospital operator at (614) 722-2000. The GI nurse will be called and arrangements will be made to replace the probe.
- Place the first three inches of the probe in a cup of water. The nurse will meet you in the GI Procedure Room to replace the probe.

## **RISKS AND COMPLICATIONS**

- Placement of the probe causes gagging and is painful. This usually goes away quickly after the probe is placed. Vomiting may occur when the probe is placed.
- A small amount of bleeding may occur from the nose, throat, or tonsils as the probe is placed. This bleeding is usually minor.
- Coughing may occur if the probe goes into the windpipe (trachea). This can be seen on the chest x-ray and the probe will be removed. When the probe is removed, the coughing will stop.
- The probe may come out with coughing, vomiting, or by the child pulling it out. This means that the probe will have to be put back in.

## **AFTER THE TEST**

The test results will be downloaded to a computer and reviewed by the doctor. Results are usually available in two to three days. If you have any questions, be sure to ask your doctor or nurse, or call the GI Department at (614) 722-3450.