

23 hour pH/impedance catheter test

What is a 23 hour pH/impedance catheter test?

This test looks at how fluids and food move in your child's esophagus. Your esophagus is the tube that moves food from your mouth to your stomach. The test also shows if air or acid reflux is in the esophagus. Reflux is caused by stomach contents coming up into the esophagus.

Why is this test done?

This test is done to help your doctor understand what happens in the esophagus. It is usually done if they think your child has Gastroesophageal Reflux Disease (GERD). GERD is caused by reflux. It may cause symptoms like coughing, vomiting, hoarseness and pain. The results of the pH/impedance catheter test will help your child's doctor decide what treatment, is needed. Sometimes no treatment is needed.



How is it done?

The catheter is a small flexible tube with sensors. The tube goes in one nostril and is gently moved down into the esophagus. An x-ray is done to check that the tip of the tube is in the right place. The catheter is attached to a small recorder (monitor) that your child carries with them. The test will record information for 23 hours. The catheter needs to stay in place for 23 hours. If the catheter comes out too soon the test needs to be repeated.



Will this test hurt?

Having a tube passed through the nose does not feel good. Your child may be awake while the tube is put in. Putting a catheter in may cause your child to gag, sneeze or get tears in their eyes. The tube will be taped in place. Most children get used to the tube quickly. Your child may be able to go home overnight while the test is being done.

What needs to be done before the test?

- Your child should not eat any food or drink any liquids for 4 hours before the test.
- The healthcare provider who ordered the test should tell you if any medicines need to be stopped before the catheter is put in. **If your child is taking medicine for stomach acid it might be stopped for 7 days before the catheter is put in. Please check with your healthcare team if you do not have this information.**

What should my child be doing during the test?

- Your child should keep doing their normal activities.
- Your child should eat and drink like they usually do. Do not give acidic drinks like apple juice, orange juice or lemonade because it can affect the study results. This is important for the test to be successful. It is best if your child eats at least three meals before ending the study.
- **It is important that your child does not pull out the catheter.** We will discuss ways to keep your child from pulling the tube out.
- Your child will need to wear the recorder (monitor) while it is attached to the catheter. It can hang from the strap, clip on their clothing, or fit in some pockets.

What do I need to do with the recorder (monitor) during the test?

- You will need to push buttons for different activities on the recorder. You will also write things in a diary.
- Some details you will write down are:
 - kinds and amount of food or drink your child is having
 - how long they sleep
 - how they feel or if they have symptoms
- **Pressing the buttons and writing details in the diary is important.** This will help the doctor understand your child's symptoms and how to help them best.
- **When buttons are pressed the icon will appear.** The time should always be on the screen. If the time is not seen call, Children's and ask the operator to page the GI Provider on call.
- Do not let the recorder get wet.
- If the catheter is pulled out at home before the test is done, write that time in the diary. The test will end at that time. **If the test ended too soon it will need to be repeated.** Return the catheter, recorder and diary at your appointment.



How will the catheter be removed?

- The catheter is removed when the test is done. If you are at home, you will need to come back to the hospital to have the tube removed. You will come to the GI clinic on the 7th floor of the Clinics building. Usually it only takes a few seconds to take it out. This does not hurt. If the catheter comes out at home the test may need to be repeated.

What do I need to do with the recorder (monitor) after the 23 hour test?

Come to your GI clinic appointment to remove the catheter and return the diary and recorder. Be sure to return the completed diary when the catheter is removed and the recorder is returned to the clinic.

How do I find out the results?

It takes 14 days for the doctors to review the test recordings. We will send a letter to your primary doctor and the doctor who requested the test. The doctor who ordered the test will call you with results. If you have any questions about the results, please call your doctor.





ALERT: If you have any questions, concerns or if your child has special health care needs not covered by this information or the pH tube comes out, call during the weekday, 8am-4 pm 414-266-3690. Other times, call 414-266-2000 and ask Children's operator to have GI (Gastroenterology) provider on call paged.

pH Impedance Diary Recording Process

MMS Ohmega pH Impedance Recorder



Each button puts a marker on the recording to show the activity. It is important when a button is pressed you write the details about that activity in the diary. The time you press the button on the recorder should be the same time you write in the diary.

Button	Instructions
	<p>Lying down or sleeping</p> <p>Press this button when your child lays flat or they go to sleep. Press this button again when they wake up or sit up. Write both the times and activity for the start and the end of laying down or sleeping.</p>
	<p>Eating or drinking</p> <p>Press this button when your child starts to eat or drink. Press again when they are done eating or drinking. Write both the start and stop times and what they ate or drank in the diary. Use the notes section to write what was eaten or drank. An examples is to write "toast, jelly, glass of milk". During the test your child should eat and drink like normal. Write everything in the log and push the buttons.</p>
	<p>Medicines</p> <p>Press this button when your child takes an oral or inhaled medicine. Write the medicine name and what time they took it in the diary.</p>
	<p>Symptoms</p> <p>Press this button any time the main symptom(s) for being tested happens. Examples are: chest pain, throw up, reflux, tummy pain, cough, hiccup etc.</p>

	Write what time the symptom happened and describe it in the diary. Write how long it lasted.
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- This test will run for 23 hours. The catheter will be taken out by a GI staff member at the clinic.
- If you have questions or concerns about the test call:
 - Between 8 am and 4pm, call 414-266-3690 to speak with the GI staff at the clinic.
 - After 4pm, call 414-266-2000 and ask to speak to the GI (Gastroenterology) provider on call.
- If the probe comes out early by accident or pulling, your child may need to repeat the test. Please call the number listed above and talk to the GI staff. GI staff may tell you to go to the emergency room to replace the catheter the same day or to make a new appointment to repeat the test.
- Please do what you can to keep the tube from coming out too early.
- Bring the diary and monitor to the clinic appointment.
- For more information, visit: www.chw.org/ph

Your appointment to remove the catheter and turn in the pH Impedance Diary at the GI clinic (Suite #710) is:

_____ / _____ / _____ at _____ :

Medicines (Press 1 x)

Time taken	List medicines

Symptom Episodes (Press 1x)

Time started	How long symptoms lasted and symptom description

- Do not open battery compartment.
- Do not shower or let water get inside the recorder, it is not waterproof.
- Contact the GI staff, if the probe comes out or if the recorder image window does not show your child's name and time.

Patient Label

PH IMPEDANCE DIARY LOG

Lying flat or sleeping

Begin time (Press when Lying Flat)	End time (Press when Sitting up)	Comments

Meals/Snacks/Drinks: (Press 2 x)

Begin time	End Time	Describe what eating or drinking (like 1 cup Mac and Cheese, 4 oz. Pediasure/Formula, Sips of water, etc.)

Medicines (Press 1 x)

Time taken	List medicine

Symptom Episodes (Press 1x)

Time started	How long symptoms lasted and symptom description

- Do not open battery compartment.
- Do not shower or let water get inside the recorder, it is not waterproof.
- Contact the GI staff, if the probe comes out or if the recorder image window does not show your child's name and time.

This sheet was created to help you care for your child or family member. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment and follow-up.