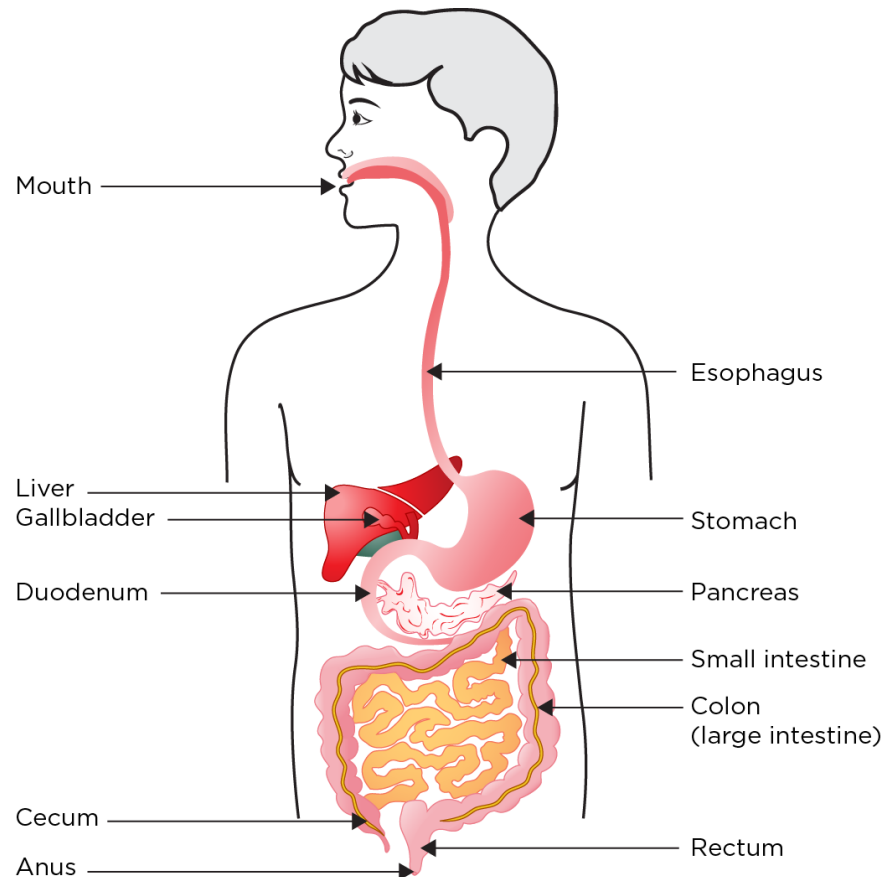


Colonic (Large Intestine) Manometry

Manometry measures the pressure of contractions of the digestive tract.

What is colonic manometry?

The colon (also known as the large intestine) is where stool is formed, stored, and then passed out of the digestive tract. Manometry (mah-NOM-eh-tree) is a test that records the pressure waves produced when the muscles of the colon contract to move stool. These muscles are involuntary, and people cannot control them.



Why is this test done?

Colonic manometry is done to measure the strength and action of the colonic muscles and nerves. The test is only recommended if results will be useful to guide treatment of your child's bowel motility problems. Motility problems (problems with moving stool out of the body) include constipation, fecal incontinence (leaking of stool), and abnormal movement of stomach or small intestine muscles.

To Learn More

- Gastroenterology
206-987-2521
- Ask your child's healthcare provider
- seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

What happens before the test?

Because the test requires a colonoscopy (placing a scope inside your child's bottom) to place the manometry catheter into the colon, your child will first need a bowel cleanout. The colon needs to be completely emptied before the colonoscopy and motility tube placement.

This cleanout is different for every child. It generally requires a clear liquid diet and the use of a bowel cleansing medicine (like GoLytely) for 48 hours before the colonoscopy. If your child takes food and liquids by mouth, the medicine will be a drink they take at home before coming to the hospital.

Some medicines may interfere with the colonic manometry test. Your child may be asked to stop certain medicines up to 72 hours before the manometry test. We will remind you before the test to stop these medicines.

Some children come a day early

In addition to the home cleanout, some children will go into the hospital 1 day before the colonoscopy to make sure their colon is cleaned out. Cleanout at the hospital is done by placing a nasogastric tube (NG) in your child. This is a tube that goes in through the nose and down into the stomach. GoLytely is continued for the cleanout after you check into the hospital. The medicine is run through the NG tube. If your child already has a G-tube (gastrostomy tube) or a J-tube (jejunostomy tube), we will run GoLytely down their existing tube.

How long does the manometry procedure take?

The length of the procedure depends upon whether your child's cleanout is completed at home or in the hospital. The hospital stay for the manometry test ranges from 24 to 48 hours.

- If your child has their complete cleanout at home, you will stay 1 night.
- If cleanout with an NG tube is needed, you will stay 2 nights.

The colonoscopy and motility catheter placement are done at the same time in the Surgery Center on the day before the colonic manometry test. You and your child will need to sleep at the hospital the night after the colonoscopy to allow the anesthesia medicine to wear off from that procedure. On the next morning, the actual colonic manometry test is done in your hospital room and will take 6 to 8 hours. You can go home after that.

How do I prepare my child for this test?

- Explain the test ahead of time in a way that is appropriate to the age and temperament of your child. Use simple, honest language. If you feel relaxed, reassured and confident about the procedure, your child will feel secure, too.
- Assure them that 1 person will stay with them for the entire hospital stay. You stay with your child until they are asleep for the procedure.
- Tell them that a tube about the size of a piece of spaghetti will be placed in their colon during the colonoscopy. The tube is smaller than their colon, so they will not feel it. But be honest that it may feel a little strange to have a tube coming out of their bottom. Your child will need to stay in bed after the catheter is placed so it does not fall out.

- Help your child to relax. Helping to reduce their fear will help make the experience easier on them.
- Ask the hospital staff to give you a similar tube to play with and get familiar with at home, before the procedure.
- Bring a favorite toy or blanket.
- Let your child know that the test is important for your child's health. You and the doctor are doing the test to keep your child well and help them solve their GI problem. The doctors and nurses do this test often with other children, so they are very experienced.
- The colonic manometry test is not difficult, but it is probably uncomfortable. It may feel like pressure in the intestines and your child may eliminate stool during the test. Your loving support is essential for the test to be done completely because you will need to be with them and keep them lying still all day.
- Talk to your child about the importance of staying still in bed for the test.

Where do we go for the manometry test?

If your child is going to be coming to the hospital to stay overnight first for a bowel cleanout, the procedure scheduler will tell you the time, date, and location for admission. The next day, you and your child will be taken by staff to the procedure area at the arranged time for the colonoscopy.

If your child is not going to be admitted to the hospital before the procedure for a bowel cleanout, you begin the cleanout at home, then come to the Surgery Center the morning of the procedure. If you are driving to the Surgery Center, you can park in the Ocean garage. Check-in at the Registration desk at Ocean 6.

Once arriving at the Surgery Center, the nurse takes your child's temperature and blood pressure. The anesthesiologist (a doctor who gives patients medicine to keep them comfortable or asleep during surgeries and procedures) will talk to you about how they will keep your child comfortable during the procedure. When it is time for your child's colonoscopy, you will have the opportunity say goodbye to your child and then they will be taken into the GI procedure room. This is a comfortable, child-friendly room. Your child can bring their favorite blanket or stuffed animal.

What happens during the manometry procedure?

Your child is prepared for anesthesia

Your child will be given general anesthesia so they will be asleep for the entire procedure. Before the procedure, your child will have:

- Electrodes (sticker-like patches) placed on their chest to check their heart rate and breathing
- A small, painless probe taped to their toe or finger to monitor their oxygen level during the procedure
- A blood pressure cuff on their arm or leg

After your child is completely asleep, you will wait in the waiting room.

The manometry catheter is placed by colonoscopy

The GI doctor places a long flexible tube (the motility catheter) into the colon through the rectum. This is done using a colonoscope, a small hose-like tube with a light and camera at the end used to look at the colon. The colonoscope is taken out and the catheter is left inside your child's colon overnight. It will extend from the cecum of the colon (see the illustration on page 1), out through the rectum and secured in place with tape to your child's inner thigh.

The colonoscopy and tube placement procedure takes about 60 minutes, although time can vary. After the procedure, your child will go to the recovery room to wake up. As soon as your child is awake, you may join them in the recovery room. Your child will be watched for about 1 hour.

When your child is fully awake, you and your child will be taken to the medical unit for the night.

For the rest of the evening, your child will be free to do activities that can be done in bed. It is extremely important that your child remains on strict bed rest and uses the bedpan. Movies, books, and games are available. Ask your bedside nurse for help getting these items.

The actual computer test (manometry) will begin early the next morning.

Your child will not be allowed to eat or drink anything by mouth until told to do so by the GI motility doctor or nurse.

The manometry test is done

On the morning after the colonoscopy, the manometry computer cart is brought into your child's room. The motility catheter tube (that is taped to your child's leg) is connected to a small water pump that will push water very slowly through the tube and into your child's colon. This in turn is connected to a computer. Your child does not feel this water since it is a very small amount. As your child's colon tightens around the tube, the flow of water stops, and the doctor is able to watch the activity of your child's colon on the computer. The involuntary muscle activity of your child's colon is recorded by the computer.

A GI nurse will be checking the activity on the computer and monitoring your child during the test.

As part of the test, your child may be given a meal and medicine that will stimulate the colon to contract.

During the test your child will have to remain in bed for the full 6 to 8 hours of the testing and will need to use a bedpan instead of getting up to use the toilet. Your help with keeping your child still is essential for the test to work.

The GI nurse will remove the tube when the colonic manometry test is finished. The removal of the catheter takes 5 minutes and is not painful. Your child may experience discomfort from the tape removal.

Will my child have pain?

Your child may feel pain from the IV needle poke done to give the anesthesia medicine for the colonoscopy. You know your child best. No matter the level of their pain, believe they are hurting and respond right away.

The manometry test does not cause pain, but it can be awkward to lie still for so long with a catheter.

Your child may have cramping discomfort when medicines are given to stimulate the colon during the test.

Sometimes a small amount of water may leak from your child's bottom during the test. Assure them this is no big deal and that the nurses are used to this happening.

After the colonic manometry is finished, removing the tape that holds the motility tube in place may be uncomfortable. You may ask for baby oil to assist in removing the adhesive. Removing the motility catheter itself is not painful.

What happens after the test?

Your child can go home the same day as the test and return to a normal diet, play and activities right away. A nurse and doctor will create a follow-up plan for your child before you leave the hospital.

When can I expect the results?

The information recorded in the manometry computer will be read by the GI doctor caring for your child. The results take about 2 weeks. These will be discussed at a clinic appointment at a future date. The manometry results will also be shared with your primary care doctor or primary pediatric gastroenterologist. If you have not heard back from us in 2 weeks, give GI clinic a call or call your referring care provider.

What are the risks and possible complications?

There are some slight risks with any such colon procedure:

- A tear in the colon. This is very rare unless the colon is extremely diseased and thin. Tears usually require surgery to repair the hole.
- Hematoma (bruising of the colon). This is very rare and may cause the procedure to be stopped.
- Infection. This is rare unless your child has a heart problem or problems with the immune system. In these cases, antibiotics are usually given.
- The catheter may move or come out overnight, in which case the study will either be canceled, or information obtained will be limited.
- This test requires a certain amount of cooperation from the child. If it is too hard for your child to cooperate, the manometry test may not work.
- Child Life specialists can work with your family if your child is anxious. Ask about this before you check into the hospital.

Who do I call about questions or to schedule or reschedule the procedure?

- Call the GI clinic if you have more questions about the procedure, 206-987-2521
- If your child is sick on the day of the procedure, call 206-987-2045.
- To schedule a date for this procedure, call the GI procedure scheduler at 206-987-2521, option 2.