



# Antroduodenal Manometry: Questions and Answers

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Your child is scheduled for a specialized test called *antroduodenal manometry*. This information will help to prepare you and your child so the experience is as successful as it can be.

## What is gastrointestinal motility?

- Gastrointestinal motility is the movement of the food that you eat through the entire digestive tract (about 30 feet from the mouth to the rectum).
- Digestion and absorption occur when the nerves and muscles, which are part of the digestive tract, coordinate the movement of food.

## What are problems in gastrointestinal motility?

- Nerves and muscles that do not work well together or do not work with enough force contribute to gastrointestinal problems.
- Common examples of symptoms related to motility problems include heartburn, diarrhea, and constipation.
- Heartburn is a burning sensation felt in the chest that occurs when stomach acid flows back (refluxes) into the esophagus.
- Constipation results when the muscle contractions in the large intestine are not well coordinated. Severe constipation, diarrhea, abdominal distention, and abdominal pain are often related to abnormal muscular contractions of the colon.

## What is antroduodenal manometry?

- The antrum is the lower part of the stomach. The duodenum is the first portion of the small intestines. The antrum of the stomach and the duodenum are connected by a muscle called the pyloric sphincter.
- Manometry is the study of pressure. Antroduodenal manometry is a way to measure and identify any abnormalities in the coordination and strength of the muscle contractions in the stomach and the duodenum.
- Abnormalities in strength or coordination of contractions may cause improper digestion and result in symptoms including anorexia, nausea, gagging, vomiting, abdominal distention, abdominal pain, diarrhea, and constipation.

## What happens during the test?

- Your child will be asked not to eat for several hours before testing begins.
- An intravenous (IV) needle may be inserted in a vein to give your child sedating medicine.
- The doctor will pass a flexible plastic tube through the nose, down the throat into the stomach and finally into the small intestine. The tube does not interfere with breathing. If your child has a gastrostomy, the manometry tube may be placed through the gastrostomy.

- The tube has holes at regular spaces, that measure pressure at different places in the stomach and duodenum.
- Once properly placed, the tube is carefully secured with tape to the child's nose or gastrostomy site.
- Because sedation and stress affect the contractions of the stomach and intestines, the measurement of pressure will start after your child is fully recovered from the catheter placement.

#### **How long does the test take?**

- The antroduodenal manometry tube is connected to a machine that slowly pushes water through each hole in the tube. The machine then records the pressures against the water trying to flow out of the tube.
- Recordings are continued during four to five hours of fasting, then your child is given a meal. After the meal, the recordings are continued for another one or two hours. From start to finish, the measurement of pressures usually takes six hours. Medication may be given throughout the test to measure their effect on the gastrointestinal motility.
- While the tube is in place, your child will be restricted in activity. Watching TV, reading, storytelling, and quiet play are all encouraged. You may stay with your child throughout the test.

#### **Does the test hurt?**

- The measurement of pressure during the antroduodenal manometry is painless; your child will not feel the tube inside his/her stomach and intestine.
- Your child may feel some discomfort due to inserting an IV, lying still for an extended period, and possibly from injections of medicine and removal of the tube.

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