

## Antroduodenal manometry: information for families

**Manometry is a way of measuring how well the muscles and nerves in the digestive system are working. Antroduodenal manometry looks at the muscles and nerves in the stomach and small intestine. This information sheet from Great Ormond Street Hospital (GOSH) explains about the antroduodenal manometry test and what to expect when your child has one. An Easy Read information sheet is included for your child.**

The digestive system is a hollow tube from the mouth to the anus. The walls of the tube contain muscles and nerves that squeeze food rhythmically through the system – this action is called peristalsis. If the muscles and/or nerves are not working properly, food cannot pass through the digestive system.

### What happens before the test?

You will already have received information about how to prepare your child for the test in your admission letter.

The person bringing your child to the test should have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power and authority to make decisions for a child. If the person bringing your child does not have Parental Responsibility, we may have to cancel the test.

The doctors will explain about the test in more detail, discuss any worries you may have and ask you to sign a consent form giving permission for your child to have the test.

The test can still be carried out if your child currently feeds using a gastrostomy or gastrojejunostomy (transgastric jejunal feeding

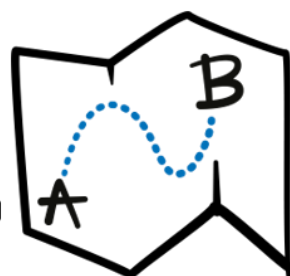
device) but please bring a spare device of the same size with you.

Your child will need to come to hospital the day before the test. The nurse or doctor will put a thin tube (cannula) into a vein in your child's arm. A nurse will apply some local anaesthetic cream first so that the skin is numb. Your child may like to have a cold numbing spray before the needle instead of the cream. The nurse will take a blood sample from the cannula to check your child's salt and mineral levels the day before the test.

It is important that your child does not eat anything from midnight the night before the test. If your child is normally on parenteral nutrition or overnight feeds, this will also be stopped at midnight. Intravenous fluids will be given to your child from this time to ensure they stay hydrated. If you child would like a drink, they can drink water only up until 6.30am.

If your child has any medical problems, including allergies, please tell the doctors about these. Please also bring in any medicines your child is currently taking and show these to the doctor.

If your child is taking any of the following medicines: erythromycin, domperidone, azythromycin, nifedipine, cyclizine, buscopan or



opiates such as morphine these will need to be stopped at least 48 hours before the test starts.

## What does the test involve?

The catheter needed to check the muscles and nerves is inserted in the Interventional Radiology department. The catheter contains lots of sensors that can record nerve and muscle reactions.

While your child is under general anaesthetic, the doctor will pass the catheter through one of your child's nostrils and down the back of their throat until it reaches their stomach. The doctor will use x-rays and guide wires to help them move the tip of the tube from the stomach into the small intestine.

If your child has a gastrostomy or gastrojejunostomy device, the catheter may be passed through the gastrostomy site and a smaller naso-gastric tube passed into their nose or alongside the manometry catheter while your child is under anaesthetic.

The other end of the catheter will be taped to keep it in the correct place. Once your child has woken up you will be able to join them in recovery and stay with them for the remainder of the test. They will be ready to start the test when they have recovered fully from the anaesthetic.

The end of the catheter outside the body is attached to a machine which measures how well the muscles and nerves are working. The test will be carried out by your child's bed space on the ward and will last for approximately 24 hours.

Your child will need to have regular blood tests during the test to check the sugar and salt levels in their blood. A nurse will be caring for your child throughout the test. The doctor will need to assess what happens when your child is fasting and has food.

Your child will be fasting for most of the test, that is, they will continue to have nothing to eat. If they want to, your child can drink water only throughout

the test. However, they will be given intravenous fluid to ensure they are well hydrated so may not want a drink. Towards the end of the test your child will need to have something to eat and drink.

If your child does not usually feed by mouth or into their stomach, a member of the Motility team will discuss this part of the test with you.

## Are there any risks?

Your child could have a nosebleed when the catheter is inserted into the nostril, as the guide wires used may cause a small scratch inside of the nose.

There is a very small risk that the catheter could cause damage to the digestive system as it is inserted. However, this is very unlikely as the catheter is flexible and the doctors and nurses who carry out this test are very experienced.

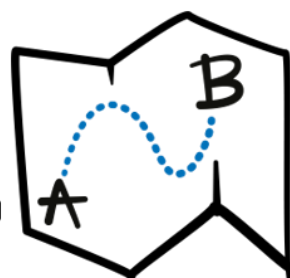
There is a very small chance that the salt levels in your child's blood may be affected. This will be closely monitored throughout the test. If your child's salt levels fall below the normal ranges, the intravenous fluids will be changed to correct this.

## What happens after the test?

The nurse will remove the catheter once the test is complete.

- If the catheter was placed via the gastrostomy site, a new gastrostomy button will be placed as soon as the manometry catheter is removed.
- If your child normally has gastrojejunostomy, the manometry catheter will be left in place. A new device will be inserted by the Interventional Radiology team, using the manometry catheter to help them.

Provided no other tests are planned, the nurse will remove the cannula before you leave the ward.



## When you are at home

After a general anaesthetic, most children recover quickly and are soon back to their usual activities. Some children may get side effects – however, these are usually mild. Headaches, nausea (feeling sick, sometimes with vomiting) and a sore throat are common but can usually be treated effectively with medicines.

Other side effects generally just need time to wear off and include tiredness, dizziness. Some children may also have disturbed sleep patterns for a few days afterwards.

Unless you have been advised otherwise, your child can start eating and drinking their usual diet and re-start any medications that were stopped for the test.

You should call if your child:

- becomes generally unwell
- refuses to eat or drink
- is sick
- is unusually sleepy or it is difficult to wake them up.

If you have any questions, please telephone the Gastroenterology Investigation Suite on 020 7405 9200 ext 0212 (Tuesday to Friday from 8 am to 6pm. Out of hours or in an emergency, please contact NHS 111 or take your child to the nearest Accident and Emergency (A&E) department.

## How long will it take to get the results?

Your child's test results will be given to you at your next outpatient appointment at the hospital. The analysis of this test is complicated so it may take some time to get the results. However if there is a need to start on new treatment before the appointment, the hospital will contact both you and your family doctor (GP) with details.

## Having antroduodenal manometry



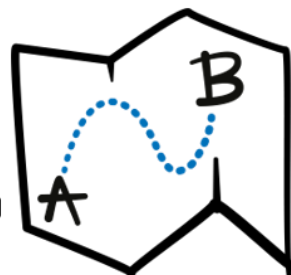
Your digestive (said: dy-jess-tiv) system is a long tube that goes from the back of your mouth all the way to your bottom.



When you eat or drink something, it travels through this tube and all the goodness is taken out so your body can use it. Anything left over comes out of your bottom as poo.



Muscles and nerves squeeze the food downwards. If the muscles and nerves do not work well, food cannot travel downwards as it should.





You will have an anaesthetic (said an-ess-thet-ick) for the catheter to be inserted. You will not be able to feel anything or know what is happening.



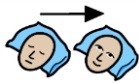
You must not eat anything before the test.



The doctor or nurse will put a bendy tube down your throat into your tummy. The tube has lots of sensors in it to check your muscles and nerves.



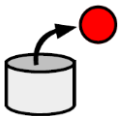
The bendy tube is joined to a computer. The sensors measure how well your muscles and nerves are working.



The test starts when you are awake after the anaesthetic. You will stay on the ward until the next day.



Towards the end of the test, you can have something to eat and drink. The computer will record your muscles and nerves.



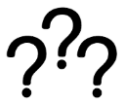
When the doctors have checked the computer, they will remove the bendy tube.



The nurses will check you regularly to make sure you are getting better. You can then go home.



The doctors will write a report about the test and results.



Please ask us if you have any questions.

