

Magnetic Resonance Enterography (MRE)

Your doctor has recommended that you have a test called Magnetic Resonance Enterography (MRE).

This will be done in the MRI Centre at McMaster University Medical Centre. The MRI Centre is on the 1st floor, beside the elevators in the Blue Section.

On the day of your test, plan to spend about 2 to 3 hours in the MRI Centre.

What is Magnetic Resonance Enterography (MRE)?

MRE is a way to take pictures inside your body without using x-rays or radiation.

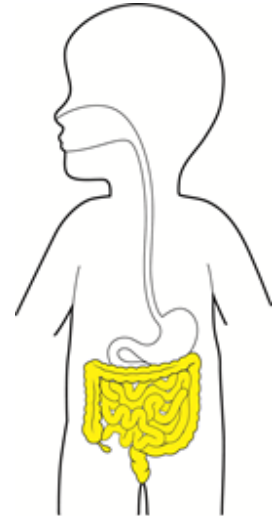
MRE is done with a Magnetic Resonance Imaging (MRI) machine. The machine uses a powerful magnet and a computer to create very clear, detailed images of your bowels (gastrointestinal or GI tract).

Before the test, you will have:

- Three special drinks that make your bowels easier to see in the MRE pictures.

It is very important to drink all of the recommended drinks provided. If you are unable to drink, you may need to have a Nasogastric (NG) tube inserted and/or your test may be cancelled and rescheduled.

- An intravenous line (IV) inserted. Medications are given through the IV to make your bowels stop moving and make them easier to see in the images.



An MRE is not uncomfortable or painful. It takes about 30 to 45 minutes. A Medical Radiation Technologist (MRT) is there to do the test and support you.

After the MRE, the pictures are reviewed by a Radiologist and then sent with a report to your referring doctor.

The team caring for you during the MRE has Medical Radiation Technologists, Registered Nurses and Radiologists.


How can I prepare for the test at home?

To prepare for the intravenous (IV), think about the following and make a plan:

- Do you understand the steps involved?
- Would you like to lay down on a bed or sit on a chair?
- Would you like to watch or look away?
- Would you like the MRT to count to three before inserting the needle or not count?
- Would you like to hold someone's hand or be distracted with an activity?
- Would you like to numb the area where the intravenous (IV) will go?

If so, you will need to buy a numbing gel (topical anesthetic) at the pharmacy ahead of time, and bring it to the MRI Centre. (Ametop gel is available in the McMaster Drugstore, on the second floor near the main entrance.)

To prepare for the MRE:

- Practice laying still, starting with a few seconds and working up to 5 minutes.
- Practice holding your breath up to 10 to 15 seconds at a time.
- You can use a cup from the hospital or a cup from home for the drinks.
- You can choose from a few different flavours to make the MRE drink taste better, or you can bring your favorite flavour with you, as long as it is not a red colour.
- Listen to the sounds of an MRI machine. You can download the “Simply Sayin, Medical Jargon for Kids” app for your mobile device. 
- Choose a DVD of your favorite movie to bring with you, or you can choose one of the movies in the MRI Centre.
- Choose some activities to bring with you. They will keep you busy while you have the MRE drinks and wait for your scan.

Ask to speak with a Child Life Specialist in your referral clinic if you would like more help to prepare, or for support during your MRE.

What happens before the MRE?

Important safety information	
At home	<p>Do not have anything to eat for 6 hours before your MRE. You may drink clear fluids like apple juice or water.</p> <p>Remove all jewellery.</p>
When you come to the hospital	<p>Tell the MRT:</p> <ul style="list-style-type: none">• If you are afraid of being in small spaces (claustrophobic), so they can help and support you the best they can.• If you have any allergies.• If you have diabetes.• If you are pregnant or think you may be pregnant. This information will be kept confidential.

In the waiting area:

- While you wait for your test, you can watch TV, play with toys or do the activities you brought from home. You can use the washroom at any time.
- To protect you and our equipment, we will ask you to change into a hospital gown. You can keep your underwear and socks on if they have no metal or reflective material.
- You will be given the MRE drinks that contains Sorbitol, a special clear liquid (contrast material) to help make your bowels easier to see.
- Sorbitol tastes like sugar water. **It is important to drink all of it** to get the best possible pictures.
- If you have not brought a movie, you can choose one of the hospital's movies to watch



When it is time for your test:

- Your parent or guardian may walk you to the door of the MRI machine room and stay with you until you are ready for the test to start.

What happens during the MRE?

The MRT will:

- Show you the MRI machine and ask you to lay down on the bed, feet first.
- Give you a call bell to hold.
- Put a large, light-weight coil on your stomach. This is like a camera that the MRI machine uses to take the pictures. The camera has little 'seatbelts' on each side that attach to the MRI table to keep the camera in place.
- Put ear plugs in your ears and head phones over your ears. This helps reduce the noise from the MRI machine. You will still be able to talk with the MRT and hear the sound from your movie.
- Put goggles on so you can watch your movie.
- Put a small clip (oximeter) on your finger. This will help to monitor your heart rate during the test.



Once you are on the table, the MRT will move your bed into the opening of the MRI machine. Then, the MRT will go to the next room and close the door.

The MRT will stay in the control room to take the MRE pictures. They will be able to see you through a large window (and on a camera) and talk to you between pictures. Sometimes, the MRT will ask you to hold your breath. The MRT can see and hear you if you have any questions.

You will need to lay very still during the test. The MRT moves the bed to line up your body for the pictures, so you may feel it moving.

After some pictures are taken, the MRT or Radiologist will put two medications into your IV, which may feel cold in your arm.

- One medication (called Buscopan) slows the movement of your bowels during the test, so the pictures will be clear. The medication may make your vision blurry and/or your heart beat faster. This is normal and will not last long.
- The other medication (called Gadolinium) is a contrast material that highlights the bowels.

What happens after the MRE?

The MRT will take off all of the equipment (goggles, headphones, coil and earplugs). The oximeter may need to stay on for a few minutes to make sure your heart rate goes back to normal.

You can choose to sit or lay down with your family when your IV is taken out.

After the test, you can return to your usual activities.

Some people have loose bowel movements after drinking the Sorbitol (contrast). This is normal and will get better soon.



Please call your clinic nurse or referring doctor if you have any questions or concerns, or to ask when the results will be ready.