A lower GI or barium enema exam will allow your doctor to see the inside of your colon. Read this handout to learn how the exam works, how it is performed, how to prepare for the exam, what to expect during the exam, and how to get your results.

Lower GI Exam
How to prepare for your procedure

What is a lower gastrointestinal (GI) tract radiography or barium enema (BE)?

Lower gastrointestinal (GI) tract radiography, or barium enemas (BE), are exams of the large intestine, also known as the colon. The ascending colon, the transverse colon, descending colon and the rectum are checked during the exam. The appendix may be seen if it is present, and a part of the small intestine may be seen.

Pictures are created by passing small amounts of X-rays through the body and taking pictures of the results. Fluoroscopy uses X-rays to take pictures of an organ while it is working. Still X-ray pictures can be useful in checking the colon and rectum, fluoroscopy is the best way to view abnormal or blocked movement of waste through the lower gastrointestinal (GI) tract.

How does the procedure work?

Small amounts of X-rays are passed through the body. When a special X-ray film plate is exposed to the absorbed X-rays, a detailed picture of the inside of the abdomen is captured.

Contrast material is used to provide clear detail of the inside of the colon. Liquid barium, a thick, non-absorbable metallic substance, is placed into the colon through a rectal tube. The barium coats the inside of the rectum, colon, and a part of the lower small intestine, and creates a clear picture.

How should I prepare for the exam?

Your doctor will give you detailed instructions on how to prepare for your lower GI exam.

- Tell your doctor about any recent illnesses or other medical conditions, as well as any allergies you might have to medications.
- Tell your doctor or X-ray technologist if there is any chance you are pregnant.
• On the day before the exam, you will be asked not to eat, and to drink only clear liquids like juice, tea, black coffee, cola, or broth, and to avoid dairy products.

• After midnight, you should take nothing by mouth.

• You may also be told to take a laxative (in either pill or liquid form) and to use an over-the-counter enema kit the evening, or even a few hours before the exam. Just follow your doctor's orders.

• Take routine prescribed oral medicine with small amounts of water.

• You will change into a gown before your exam.

• You will need to remove jewelry, glasses, or any metal objects that could affect the pictures.

### How is the exam performed?

The radiologist or technologist will discuss details of the exam and can review rare contraindications (problems that need special attention). A lower GI study typically takes 30 to 60 minutes.

1. You will be placed on the table, and a picture is taken to make sure that your bowels are empty.

2. The radiologist or technologist will then send the contrast material through a small tube placed into the rectum. A mixture of barium and water is passed into your colon through the tube.

3. To help the barium coat the lining of the colon, air may also be sent through the tube. The radiologist may prefer a water and iodine solution instead of barium to view the colon.

4. A series of pictures will then be taken.

5. You may be moved throughout the exam to allow the radiologist or technologist to capture views of the colon from all angles. During the exam, the radiologist will watch the delivery of barium, and will take or request special views or close-ups.

6. Once the X-ray pictures are done, most of the barium will be drawn back into a bag, and you will be sent to the bathroom to get rid of the remaining barium and air.

7. The technologist may then take more pictures to help the doctor see how well the colon has cleared. You may then go home.
What will I feel during the exam?

- As the barium fills your colon, you will feel the need to move your bowel. You may feel abdominal pressure, or even minor cramping. These are common sensations, and most people can put up with the mild discomfort. The tip of the enema tube is designed to help you hold in the barium. If you are having trouble, tell the technologist.

- During the exam, you will be asked to turn from side to side, and to hold several different positions. At times, pressure may be applied to your abdomen. With air contrast studies of the bowel, the table may be turned upright.

- After the exam, you may return to a normal diet and lifestyle right away.

- Your stools may appear white for a day or so, as your body clears the barium from your system. You should drink extra water for 24 hours after the exam. After a BE, you may have trouble moving your bowels. If you do not have a bowel movement for more than 2 days after your exam, or are unable to pass gas rectally, call your doctor promptly.

Who interprets the results and how do I get them?

A radiologist trained to interpret upper GI exams will review the pictures and send a report to your doctor, who will give you your test results. The radiologist will not discuss the results with you. Based on the findings, you and your primary care doctor will decide the next step, such as treatment for a problem, as needed.