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Barium enema



Barium enema is a special [x-ray](#) of the large intestine, which includes the colon and rectum.

How the Test is Performed

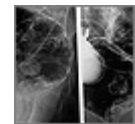
This test may be done in a doctor's office or hospital radiology department. It is done after your colon is completely empty and clean. Your doctor will give you instructions for cleansing your colon.

During the test:

- You lie flat on your back on the x-ray table. An x-ray is taken.
- You then lie on your side. The health care provider gently inserts a well-lubricated tube (enema tube) into your rectum. The tube is connected to a bag that holds a liquid containing barium sulfate. This is a contrast material that highlights specific areas in the colon, creating a clear image.
- The barium flows into your colon. X-rays are taken. A small balloon at the tip of the enema tube may be inflated to help keep the barium inside your colon. The provider monitors the flow of the barium on an x-ray screen.
- Sometimes a small amount of air is delivered into the colon to expand it. This allows for even clearer images. This test is called a double contrast barium enema.
- You are asked to move into different positions. The table is slightly tipped to get different views. At certain times when the x-ray pictures are taken, you are told to hold your breath and be still for a few seconds so the images will not be blurry.
- The enema tube is removed after the x-rays are taken.
- You are then given a bedpan or helped to the toilet, so you can empty your bowels and remove as much of the barium as possible.

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Barium enema



Rectal cancer, x-ray



Sigmoid colon cancer, x-ray



Barium enema

Afterward, one or two more x-rays may be taken.

How to Prepare for the Test

Your bowels need to be completely empty for the exam. If they are not empty, the test may miss a problem in your large intestine.

You will be given instructions for cleansing your bowel. This is also called bowel preparation. Follow the instructions exactly. This ensures accurate results.

Your bowels are emptied using an enema or laxatives. 1 to 3 days before the test, you need to be on a clear liquid diet. Examples of clear liquids are:

- Clear coffee or tea
- Fat-free bouillon or broth
- Gelatin
- Sports drinks without added color
- Strained fruit juices
- Water

How the Test will Feel

When barium enters your colon, you may feel like you need to have a bowel movement. You may also have:

- A feeling of fullness
- Moderate to severe cramping
- General discomfort

Taking long, deep breaths may help you relax during the procedure.

It is normal for the stools to be white for a few days after this test. Drink extra fluids for 2 to 4 days. Ask your doctor about a laxative if you develop hard stools.

Why the Test is Performed

Barium enema is used to:

- Detect or screen for [colon cancer](#)
- Diagnose or monitor [ulcerative colitis](#) or [Crohn disease](#)
- Diagnose the cause of blood in stools, diarrhea, or very hard stools

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(constipation)

The barium enema test is used much less often than in the past.

[Colonoscopy](#) is done more often now.

Normal Results

Barium should fill the colon evenly, showing normal bowel shape and position and no blockages.

What Abnormal Results Mean

Abnormal test results may be a sign of:

- Blockage of the large intestine ([Hirschsprung disease](#))
- Colitis due to [Crohn disease](#) or [ulcerative colitis](#)
- Cancer in the colon or rectum
- Sliding of one part of the intestine into another ([intussusception](#))
- Small growths that stick out of the lining of the colon, called [polyps](#)
- Small, bulging sacs or pouches of the inner lining of the intestine, called [diverticulosis](#)
- Twisted loop of the bowel ([volvulus](#))

Risks

There is low radiation exposure. X-rays are monitored so that the smallest amount of radiation is used. Pregnant women and children are more sensitive to x-ray risks.

A rare, but serious, risk is a hole made in the colon (perforated colon) when the enema tube is inserted.

Alternative Names

Lower gastrointestinal series; Lower GI series

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