

## What is Lower GI Tract X-ray Radiography (Barium Enema)?

Lower gastrointestinal (GI) tract radiography, also called a lower GI or barium enema, is an [x-ray](#) examination of the large intestine, also known as the colon. This includes the right or ascending colon, the transverse colon, the left or descending colon, sigmoid colon and the [rectum](#). The [appendix](#) and a portion of the distal small intestine may also be included.

An x-ray (radiograph) is a noninvasive medical test that helps physicians diagnose and treat medical conditions. Imaging with x-rays involves exposing a part of the body to a small dose of [ionizing radiation](#) to produce pictures of the inside of the body. X-rays are the oldest and most frequently used form of medical imaging.

The lower GI uses a special form of x-ray called [fluoroscopy](#) and a [contrast material](#) called [barium](#) or a water soluble iodinated contrast.

Fluoroscopy makes it possible to see internal organs in motion. When the lower gastrointestinal tract is filled with barium, the [radiologist](#) is able to view and assess the anatomy and function of the rectum, colon and sometimes part of the lower small intestine.

## How should I prepare for the procedure?

Your physician will give you detailed instructions on how to prepare for your lower GI imaging.

You should inform your physician of any medications you are taking and if you have any allergies, especially to barium or iodinated [contrast materials](#). Also inform your doctor about recent illnesses or other medical conditions.

On the day before the procedure you will likely 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 not eat or drink anything. You may also be instructed to take a [laxative](#) (in either pill or liquid form) and to use an over-the-counter [enema](#) preparation the night before the exam and possibly a few hours before the procedure. Just follow your doctor's instructions. You can take your usual prescribed oral medications with limited amounts of water.

You may be asked to remove some or all of your clothes and to wear a gown during the exam. You may also be asked to remove jewelry, eye glasses and any metal objects or clothing that might interfere with the x-ray images.

Women should always inform their physician or x-ray [technologist](#) if there is any possibility that they are pregnant. Many imaging tests are not performed during pregnancy so as not to expose the [fetus](#) to radiation. If an x-ray is necessary, precautions will be taken to minimize radiation exposure to the baby.

