Barium X-Ray Exam: Esophagus, Stomach, and Upper Intestine (Upper GI)

What is a barium x-ray exam?
A barium x-ray exam is a procedure in which your health care provider uses barium liquid and x-rays to examine your esophagus, stomach, and small intestine. Barium is a liquid that will show up on an x-ray image. A barium exam of these organs is also called an upper gastrointestinal (GI) barium study, or upper GI series.

When is it used?
Reasons for doing this procedure are:

- bleeding (vomiting blood or passing blood in your bowel movements)
- problems swallowing
- abdominal pain or heartburn
- suspected tumor in or near the GI tract.

The barium x-ray helps diagnose hiatal hernia, ulcers, tumors, and inflammation or irritation of the esophagus.

How do I prepare for an upper GI barium study?
Follow the instructions provided by your health care provider. The night before the procedure, eat a light meal such as soup and salad. Do not have anything to eat or drink the morning of the procedure. You may also be asked not to chew gum or smoke cigarettes after midnight the night before the procedure. Both can increase the amount of saliva in your stomach, which can interfere with the exam.

Ask your provider if you should not take any medicines that you usually take in the morning.

What happens during the procedure?
You will drink a barium liquid. The barium is in a flavored drink like a milkshake.

The x-ray technologist will ask you first to stand in front of an x-ray machine and then you will lie on an x-ray table that tilts in various positions. A small amount of air may be pumped into your stomach to get a better x-ray picture.

The technologist will take x-rays of the barium liquid going down your throat, into your stomach, and sometimes going on through your small intestine. You will be free to move around between x-rays and will not have to stay on the x-ray table all the time. The test will end when the barium enters your large intestine.

An upper GI series usually takes 1 to 2 hours. In unusual cases it may last longer.

What happens after the procedure?
To get the results, call your health care provider according to the instructions you were given.

You can go home after the test is completed. You may be constipated from the barium. If so, you may need to take a laxative. Your stools may be light or white colored for the next few days.

Ask your health care provider when you should schedule a follow-up appointment.

What are the benefits of this procedure?
This procedure will help health care provider make a more accurate diagnosis of your problem.

What are the risks associated with this procedure?

- You could become constipated.
You could inhale the barium into your lungs, which could cause breathing problems or pneumonia.

You should ask your health care provider how these risks apply to you.

**When should I call my health care provider?**

Call your provider right away if:

- Your symptoms get worse.

Call your health care provider during office hours if:

- You continue to have constipation after several days.
- You have questions about the procedure or its result.
- You want to make another appointment.

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