Upper Gastrointestinal (GI) and Small Bowel Series

Category: Gastrointestinal system  
Subcategory: Contrast radiography  
Material studied: Fluoroscopic and X-ray images

Cost: No charge for U of I students when done at McKinley Health Center. There is a charge if this test is done outside of McKinley.

Patient time for the test: 20 minutes – one hour for GI and up to four hours for small bowel

Reliability of test results: Good  
Available as home self-test? No

Before the test

Purpose of the test:
- Detects hiatal hernia, inflammation, and swelling.
- Helps confirm diagnosis of strictures, ulcers, tumors, regional enteritis (Crohn's disease), and difficulties swallowing and regurgitating food.
- Helps detect motility disorders.

Where is the test performed?
- McKinley Health Center Radiology Department. Could also be done in a commercial X-ray laboratory, hospital, or doctor's office.

Who performs the test?
- Physician (Radiologist) and Radiographer.

Risks and precautions
- This series of tests is hazardous if you have an obstruction or perforation of the digestive tract.
- Radiation exposure is significantly higher due to fluorotime and overhead films taken.

Patient preparation
- You will be given an instruction sheet prior to your procedure. Please review it carefully.
- Diet – Follow diet instructions provided.
- Medicine – Inform the person performing the test if you have recently taken any medications listed under "Taking these drugs may affect test results" on the last page of this handout. You may be asked not to take this medication before the test. All oral medications including birth control pills are withheld after midnight before the test. Do not take anticholinergics or narcotics for 24 hours before the test.
- Disrobing – When you arrive, you will be asked to remove all clothes and put on a gown.

The test

Sensory factors
- Touching – You may be uncomfortable for short periods when you assume the positions the Radiographer requests. X-ray rooms are frequently uncomfortably cool when you disrobe for examination.
- Seeing – You will see strange-appearing heavy equipment with a leaded mirror separating you from the Radiographer.
- Hearing – You will hear the sounds of X-ray machine during exposure to X-ray films.
- Feeling – You may feel intimidated by the large equipment. Some degree of apprehension or fear is normal and should be expected. This discomfort disappears when the test is completed.
- Other senses (taste, smell) – The barium may not be palatable – some people may have difficulty swallowing.
Equipment used
- Barium mixture.
- Fluoroscope with TV monitor.

Description of test
- X-rays are taken of the upper gastrointestinal system.
- Maintain the position the Radiographer requests. Hold absolutely still while the film is being exposed.
- The Radiographer will tell you when you can move and breathe again.
- You are placed on an X-ray table that rotates into vertical, semivertical, and horizontal positions.
- For this test, you are given a barium "milkshake" to drink.
- Your abdomen may be compressed to ensure proper coating of the stomach or intestinal walls with barium. Passage of the barium is followed with the fluoroscope. Various films will be taken at 5-15 minute intervals. You will be asked to wait a short while until films are developed.

After the test
Immediate post-test care
- Drink plenty of fluids.

Activity after test
- Increase fluid intake because barium retained in the intestine may harden, causing obstruction or fecal impaction. Notify your doctor if this occurs.
- Your stool will be light-colored for 24 to 72 hours.
- If additional X-rays are not scheduled, resume your normal diet and use of any medication. Return to pretest activities when you feel able.

Time before test results available
- Times before results are reported to the doctor or patient is usually 3 business days.

Test results
Test values:
- No structural or functional abnormalities.

What an "abnormal" test result may indicate
- Diverticula
- Hiatal hernia
- Malabsorption syndrome
- Regional enteritis
- Strictures
- Tumors
- Ulcers
- Varices
- Cancer

Taking these drugs may affect test results
- Antacids
- Anticholinergics
- Narcotics

Other factors that may affect test results
- Smoking within 24 hours of the test.
- Failure to follow diet restrictions.
- Failure to remove all jewelry and metal objects in the X-ray field.
- Excess air in the small bowel.

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: Dial-A-Nurse at 333-2700.

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: http://www.mckinley.illinois.edu