

FLUOROSCOPY PROCEDURE

Fluoroscopy is a study of moving body structures - similar to an x-ray "movie." A continuous x-ray beam is passed through the body part being examined. The beam is transmitted to a TV-like monitor so that the body part and its motion can be seen in detail. Fluoroscopy, as an imaging tool, enables physicians to look at many body systems, including the skeletal, digestive, urinary, respiratory, and reproductive systems.

Fluoroscopy may be performed to evaluate specific areas of the body, including the bones, muscles, and joints, as well as solid organs such as the heart, lung, or kidneys. Other related procedures that may be used to diagnose problems of the bones, muscles, or joints include x-rays, myelography (myelogram), computed tomography (CT scan), magnetic resonance imaging (MRI), and arthrography. Please see these procedures for additional information.

REASONS FOR THE PROCEDURE

Fluoroscopy is used in many types of examinations and procedures, such as barium x-rays, cardiac catheterization, arthrography (visualization of a joint or joints), lumbar puncture, placement of intravenous (IV) catheters (hollow tubes inserted into veins or arteries), intravenous pyelogram, hysterosalpingogram, and biopsies.

Fluoroscopy may be used alone as a diagnostic procedure, or may be used in conjunction with other diagnostic or therapeutic media or procedures.

In barium x-rays, fluoroscopy used alone allows the physician to see the movement of the intestines as the barium moves through them. In cardiac catheterization, fluoroscopy is used as an adjunct to enable the physician to see the flow of blood through the coronary arteries to evaluate the presence of arterial blockages.

For intravenous catheter insertion, fluoroscopy assists the physician in guiding the catheter into a specific location inside the body.

Other uses of fluoroscopy include, but are not limited to, the following:

- Locating foreign bodies.
- Image-guided anesthetic injections into joints or the spine.
- Percutaneous vertebroplasty - a minimally invasive procedure used to treat compression fractures of the vertebrae of the spine.

There may be other reasons for your physician to recommend fluoroscopy.

RISKS OF THE PROCEDURE

You may want to ask your physician about the amount of radiation used during the procedure and the risks related to your particular situation. It is a good idea to keep a record of your history of radiation exposure, such as previous scans and other types of x-rays so that you can inform your physician. Risks associated with radiation exposure may be related to the cumulative number of x-ray examinations and treatments over a long period of time.

If you are pregnant or suspect that you may be pregnant, you should notify your physician. Radiation exposure during pregnancy may lead to birth defects.

If contrast dye is used, there is a risk for allergic reaction to the dye. Patients who are allergic to or sensitive to medications, contrast media, iodine, shellfish, or latex should notify their physician. Also, patients with kidney failure or other kidney problems should notify their physician.

There may be other risks depending upon your specific medical condition. Be sure to discuss any concerns with your physician prior to the procedure.

Certain factors or conditions may interfere with the accuracy of a fluoroscopy procedure. A recent barium x-ray procedure may interfere with exposure of the abdominal or lower back area.

BEFORE THE PROCEDURE

- Your physician will explain the procedure to you and offer you the opportunity to ask any questions that you might have about the procedure.
- You will be asked to sign a consent form that gives your permission to do the procedure. Read the form carefully and ask questions if something is not clear.
- The specific type of procedure or examination being done will determine whether any preparation prior to the procedure is required. Your physician will notify you of any pre-procedure instructions.
- Notify your physician if you have ever had a reaction to any contrast dye, or if you are allergic to iodine or seafood.
- If you are pregnant or suspect that you may be pregnant, you should notify your physician.
- Based upon your medical condition, your physician may request other specific preparation.

DURING THE PROCEDURE

Fluoroscopy may be performed on an outpatient basis or as part of your stay in a hospital. Procedures may vary depending on your condition and your physician's practices.

Generally, fluoroscopy follows this process:

1. You will be asked to remove any clothing or jewelry that may interfere with the exposure of the body area to be examined.
2. If you are asked to remove clothing, you will be given a gown to wear.
3. A contrast substance may be given, depending upon the type of procedure that is being performed, via swallowing, enema, or an intravenous (IV) line in your hand or arm.
4. You will be positioned on the x-ray table. Depending upon the type of procedure, you may be asked to assume different positions, move a specific body part, or hold your breath at intervals while the fluoroscopy is being performed.
5. For procedures that require catheter insertion, such as cardiac catheterization or catheter placement into a joint or other body part, an additional line insertion site may be used in the groin, elbow, or other site.
6. A special x-ray scanner will be used to produce the fluoroscopic images of the body structure being examined or treated.
7. A dye or contrast substance may be injected into the IV line in order to better visualize the organs or structures being studied.
8. In the case of arthrography (visualization of a joint), any fluid in the joint may be aspirated (withdrawn with a needle) before the injection of the contrast substance. After the contrast is injected, you may be asked to move the joint for a few minutes to evenly distribute the contrast substance throughout the joint.
9. The type of procedure being performed and the body part being examined and/or treated will determine the length of the procedure.
10. After the procedure has been completed, the IV line will be removed.

While the fluoroscopy procedure itself causes no pain, the manipulation of the body part being examined may cause some discomfort or pain, particularly in the case of a recent injury or invasive procedure such as surgery. The technologist will use all possible comfort measures and complete the procedure as quickly as possible to minimize any discomfort or pain.

AFTER THE PROCEDURE

The type of care required after the procedure will depend on the type of fluoroscopy that is performed. Certain procedures, such as cardiac catheterization, will require

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a recovery period of several hours with immobilization of the leg or arm where the cardiac catheter was inserted. Other procedures may require less time for recovery.

If you notice any pain, redness, or swelling at the IV site after you return home following your procedure, you should notify your physician as this could indicate an infection or other type of reaction.

Your physician will give more specific instructions related to your care after the examination or procedure.

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