



Interior Health

Introduction – Xray

X-Ray is the most frequently used imaging method for visualizing the inside of the body. Images are produced when radiation is passed through a part of the body and internal structures block different amounts of radiation to create an image.

Bone is the densest part of the body and blocks x-rays well to produce white areas of the image. Lungs contain air and so x-rays can easily pass through the tissue to produce dark areas of the image. Other tissues block x-rays less than bones but more than air creating varying shades of grey on the image.

X-rays are used for imaging bone fractures, infection, growths, obstructions, and fluid levels. It is also used to assist in a number of surgeries such as orthopedic, vascular and spinal.

Fluoroscopy

Fluoroscopy is an imaging technique in which real time images showing movement are produced through a constant input of x-rays using a special machine called a fluoroscope. This allows radiologists to visualize blood vessels and internal organs as they work and is used when constant feedback on the procedure is required (e.g. when performing an angioplasty).

Contrast Studies

Contrast studies use contrast agents such as barium, water, iodine and air to better visualize certain parts of the body such as blood vessels and organs. Contrast studies are not unique to any one imaging method but are used especially in fluoroscopy examinations to provide constant feedback on the part of the body being examined. Contrast studies can be used with general x-ray as well.

Procedure

Preparation

Many x-ray examination requires no preparation except to change into a gown and remove any jewelry or other metal objects as they will appear in the x-ray.

How it Works

The patient lies on a table, stands or sits and the x-ray tube and digital plate are aligned to the body area of interest. Typically 2-3 images from different angles are required to produce a thorough exam. The procedure is painless and takes less than 30 minutes.

Benefits

X-ray is a good method of imaging many parts of the body, especially bone, joints, the chest and abdomen. It is an excellent initial mode of diagnostic imaging because it can provide a fast answer that will either immediately diagnose a condition or provide enough information to determine the next best course of action for the patient. This makes it very useful for emergency medicine.

Risks

As with all radiological procedures, you will be exposed to a small amount of radiation. There is a very low risk associated with this exposure and all precautions are taken to ensure that only the necessary amount of radiation is used to complete the procedure. Please advise your doctor and the technologists performing the procedure of:

- any food allergies
- any allergic reactions you have had to anesthetic or x-ray contrast dyes
- any medications you are taking
- history of asthma, heart, or kidney problems
- any possibility of pregnancy

Referrals

Referral required.

Some radiology/fluoroscopy exams do require an appointment. Your doctor will tell you if your exam requires an appointment. If so, you will be contact to arrange a date and time.

Results

A radiologist, who is a physician specifically trained to supervise and interpret radiology examinations, will analyze the images and send a report to your referring physician, who will share the results with you.

Language

If the patient has difficulty understanding English, an interpreter needs to accompany the patient.