Conventional Radiography

SAFETY
HEALTH
SATISFACTION

The pillars defining our quality care

We Care Together!

S M
M C

St. Maarten Medical Center

Conventional Radiography

X-ray is an imaging technique that is used to show abnormalities in bones and certain body tissue, such as breast tissue. X-rays are a type of high-energy radiation that is like light waves but higher in energy. An X-ray machine can produce short bursts of X-rays that pass easily through fluids and soft tissues of the body but are blocked by dense tissue such as bone.

Contrast X-rays use a substance (called a contrast medium) that makes hollow or fluid-filled structures visible. This means that structures such as the digestive tract, blood vessels or urinary system that do not usually show up on X-ray, can be seen. The substance is injected or swallowed and X-rays cannot pass through it, so the area will appear white on the X-ray.

How is it performed?

You will be asked to lie on a table or stand against a surface so that the part of your body being X-rayed is between the X-ray source and a drawer containing a film cassette or digital detector (similar to a photographic film or digital camera). The designated part of your body is exposed to X-rays for a fraction of a second. The X-rays hit the film (or digital detector), which is then developed (or processed). The resultant image is studied by a radiologist and sent to your doctor.

You have to keep still so the image is clear and not blurry. The X-ray is painless and you cannot see or feel it. More than one X-ray may be taken from different angles to give more information. For example, when examining the lungs, both the front and side of the body may be X-rayed.

What is it used for?

X-rays produce clear images of bone and are used to check for fractures. They are also used for teeth and joints. Chest X-rays are used to examine the heart and lungs for heart conditions or abnormalities within the lung.

Bones can be examined using a low dose of X-ray to look for changes in the density of the tissue that may indicate a condition such as osteoporosis. Breast tissue can also be examined using a low dose of X-ray to look for tumors and cysts; this is called a mammogram.

How does it work?

X-rays are a form of radiation similar to light waves but with a higher energy, that enables them to pass through body tissue. The parts that allow X-rays through (such as air in the lungs) show up black on the film. A collection of fluid in the stomach or lung will show up as grey or 'a shadow'. Soft tissue such as muscle and body organs show up as various shades of grey and dense parts of the body such as bone show up white.

Risks

An X-ray is a beneficial procedure as it can help diagnose many different conditions. However, you may have concerns about the radiation used in an X-ray and what this can mean for your health. It is important to remember that we are all exposed to radiation from natural sources on a daily basis, and that the amount of radiation that you receive in an X-ray is usually less than this. However, the amount of radiation that you receive from a single X-ray varies according to the area of your body that is being examined. Also, X-rays that carry a higher dose of radiation are normally used to diagnose serious conditions, such as cancer and, in these cases, the benefit to the patient is expected to be even greater.

As X-rays usually use low amounts of radiation, the risk to your health is very small. However, repeated exposure to radiation may damage your body's cells which can increase the risk of cancer developing in the future. This is why the dose of radiation that is used during X-rays is always kept as low as possible. The reproductive organs are particularly sensitive to radiation, and are therefore shielded whenever possible.

Contact information

St. Maarten Medical Center

Radiology
Welgelegen Road 30
Cay Hill
St. Maarten
Tel: +1 (721) 543-1111 ext 1360
Fax: + 1 (721) 543-0116

Email: info@smmc.sx
Web: www.smmc.sx

A publication of SMMC - March 2019