

## X-ray : How do images help to diagnose illness?

In 1895 the discovery of the X-ray was an important milestone in the history of medicine made by Wilhelm Röntgen, Professor of Physics in Bavaria. X-rays became more commonly used to treat soldiers fighting in World War 1, finding bone fractures and imbedded bullets.

### In numbers:

**1913** Salisbury Infirmary took **248** X-rays  
By **1919** they were doing 4 times this with **1073**

X-rays are a form of electromagnetic radiation, similar to light. However, X-rays have higher energy and can pass through objects and in medicine they are used to make images of inside the body.

*Many of us will have had an X-ray, commonly at a dentist to look at teeth health or during an examination to check for broken bones.*

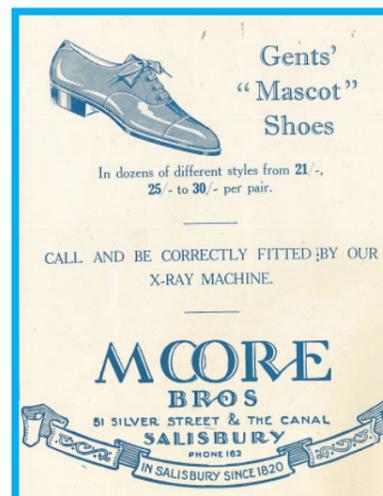
Read more at <https://www.nhs.uk/conditions/x-ray/>

### How X-rays work

- X-rays are a type of radiation that pass through the body. They can't be seen and you can't feel them.
- A detector on the other side of the body picks up the X-rays after they've passed through and turns them into an image.
- X-rays find it more difficult to pass through dense parts of your body, such as bone, and these show up as clear white areas. X-rays can pass through more easily softer parts, such as your heart and lungs, and these show up as darker areas on the images.

Early X-rays in Salisbury Hospital's history collection are printed as a negative onto glass plates. (right)

Later they were printed onto film and viewed on a light box (theatre photo)  
Today images are viewed as digital files on a computer screen (below)



## Did you know?

This advertisement, in the 1930s Salisbury Hospital Carnival programme, says you can have your foot x-rayed to get your shoes fitted. (This was common practice until late 1950s)

A child would try on new shoes, place their foot in the X-ray machine and then parents or the shop keeper could view through a scope, at the top, to see if the toes had enough wiggle room!