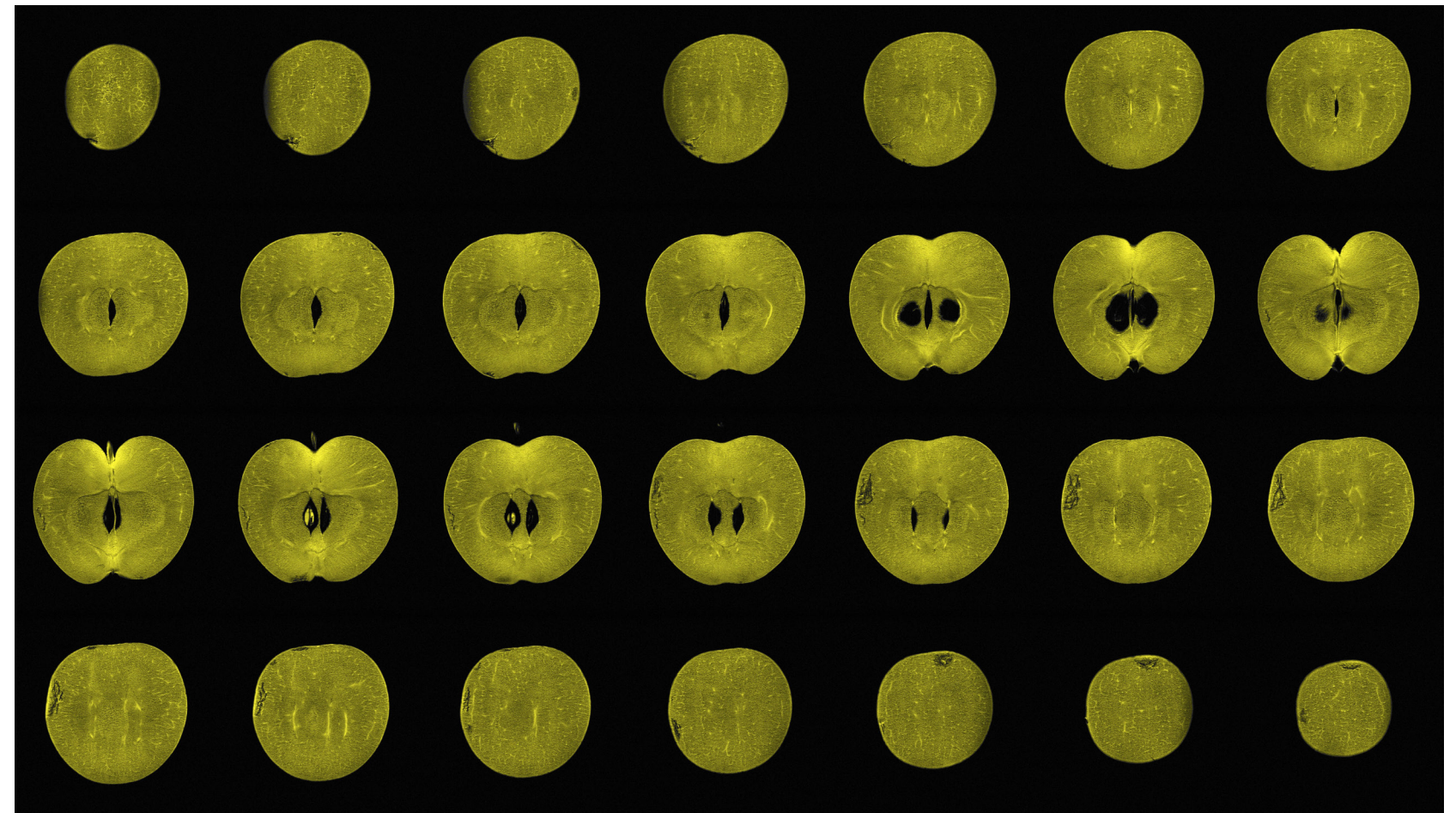


Marvelous MRIs

An MRI (magnetic resonance imaging) scanner is a large tube that contains powerful magnets. You lie inside the tube during the scan. At times the scanner will make loud tapping noises because the electric current in the coils is being turned on and off. It can take 15 to 90 minutes, depending on the size of the area being scanned and how many images are taken.



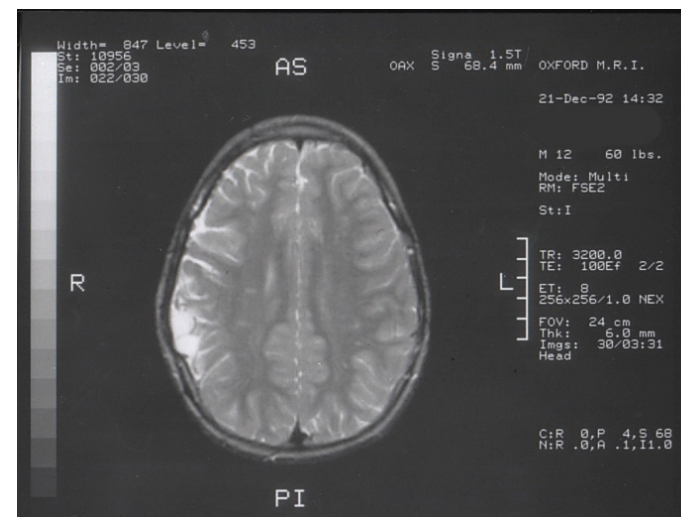
(Top right) Here an apple has been virtually sliced down from the top to the bottom in a series of thin layers. These images were made by MRI which shows details inside the apple without damaging it.

Credit: Alexandr Khrapichev, University of Oxford. (CC BY 4.0)

How MRIs work

- The human body is mostly water, which is made of hydrogen and oxygen atoms. At the centre of each hydrogen atom is an even smaller particle called a proton. Protons are like tiny magnets. In the scanner, the protons in your body line up in the same direction like needle of a compass.
- Short bursts of radio waves knock the protons out of alignment and when the radio waves are turned off, the protons line up again.
- This sends out signals showing the location of protons and also helps to see various types of tissue because the protons in different structures line up at different speeds.

Read more <https://www.nhs.uk/conditions/mri-scan/>



(Above) MRI image of a human skull



Father Christmas & his elves delivered an extra special Christmas present on 20th December 2020. Instead of a sleigh, he drove a crane, delivering a brand new MRI scanner through the roof into a new suite at Salisbury District Hospital. Funded by The Stars Appeal.



2015.267
View of the MRI scanner from behind the control panel. Image dating from 1993



2016.467
Views of the MRI scanner and patient waiting to enter the scanner feet first. Image dating from 1993



2016.475
Patient entering MRI scanner head first wearing a head guard. Image dating from 1993



2016.472 Close up of a member of staff and the MRI scanner showing a metal part of a belt being attracted to the magnet. Image dated from early 1990s

New MRI scanner opens

A two year project to build a scanning suite and install the new MRI scanner was completed in August 1998 giving patients a more comprehensive radiology service in Salisbury.

The new MRI scanner is working back to back with the existing Computer Tomography (CT) scanner in the new scanning suite which is located close to the Accident and Emergency Department. This improves access for emergency patients.

The new £750,000 scanner has been purchased from legacies and monies donated to the hospital over several years. It uses the latest technological advances, provides high quality images without the use of radiation, and complements existing diagnostic tools.

Superintendant Radiographer Richard Evans discusses the procedure with a patient who is about to be scanned

2018.4112.3 Clipping from the Salisbury District Hospital Annual Review for 1998-1999 . Depending on circumstances MRI scanners generally are replaced around every 10 years



(Above) A sequence of images showing the delivery of a new MRI scanner which has to be craned into the building. The design of the hospital includes this gap between buildings to allow the crane to carefully lower the scanner. A removable wall allows the delivery and the heavy equipment can be moved directly into place.