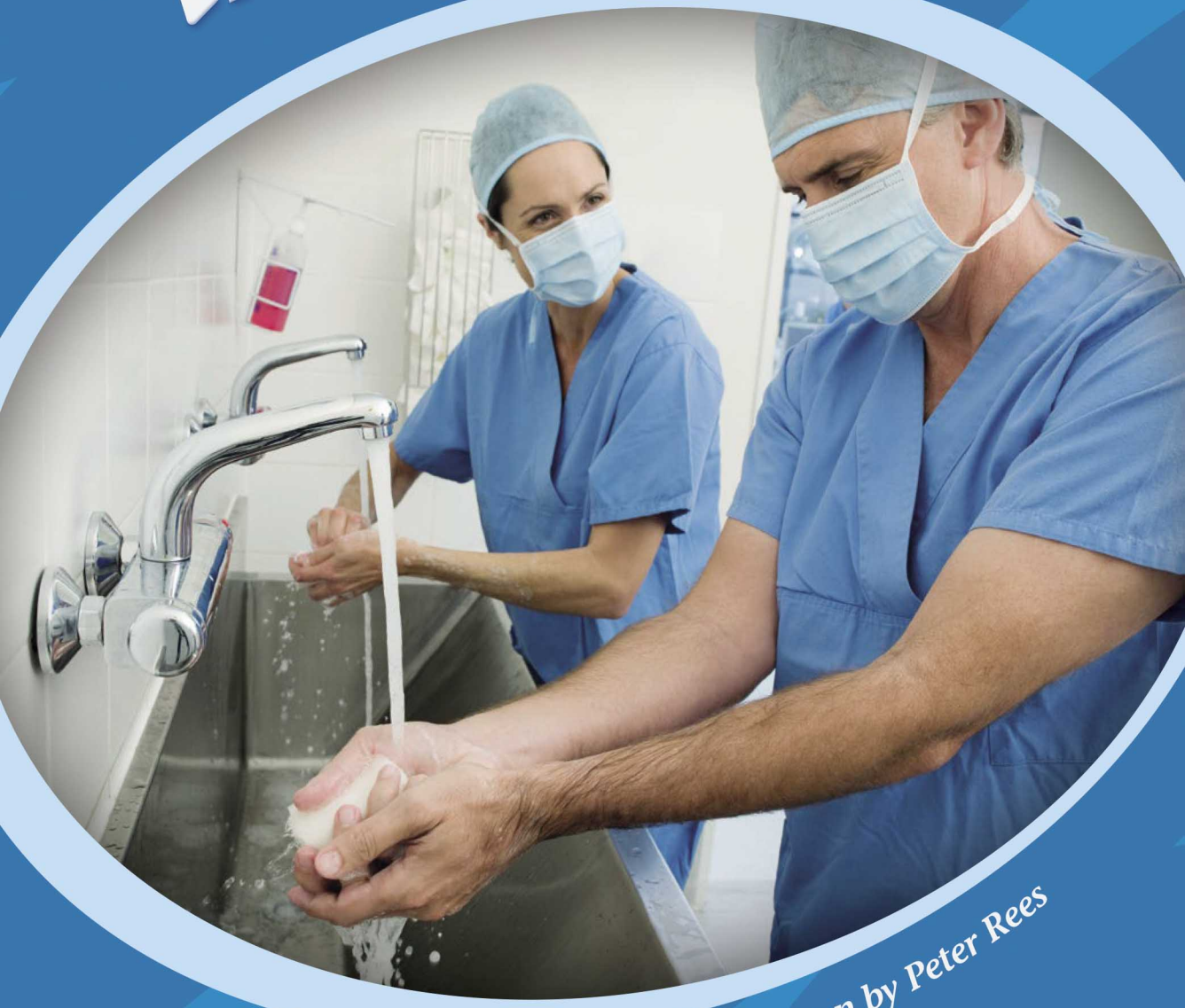
TALK ABOUT TEXTS

Science in Hospitals



Written by Peter Rees

Science in Hospitals



For Review Only

Written by Peter Rees

macmillan education

Contents

Science in Hospitals 3
What Is Wrong? 4
Science on the Ward 8
Science in the Lab 10
Scrubbing Up 14
Going Under 16
Surgical Science 18
The Future of Science in Hospitals 21
Glossary 22
Index 23

For Review Only



Science in Hospitals

In hospitals all around the world, doctors, nurses and medical specialists use science and technology to help people who are sick. Science is used to help find out what is making you sick. It helps find out what could make you better. We can treat many different diseases because of the science that medical staff use in hospitals.



Most hospitals have science laboratories.

For Review Only

What Is Wrong?

If you are ill, you may need to visit a hospital. The doctor's first job is to find out what is wrong with you. In the past, the doctor would do this by asking you questions. They would also look at the outside of your body for clues about what was wrong. Today, doctors still do these things. However, science also lets us see inside the body. Doctors can use science to find out what is wrong with a person more quickly.

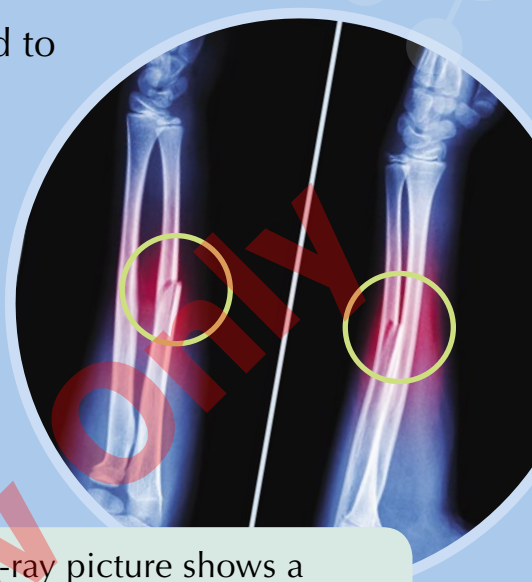
Science has given doctors and nurses tools such as digital thermometers.



For Review Only

X-rays

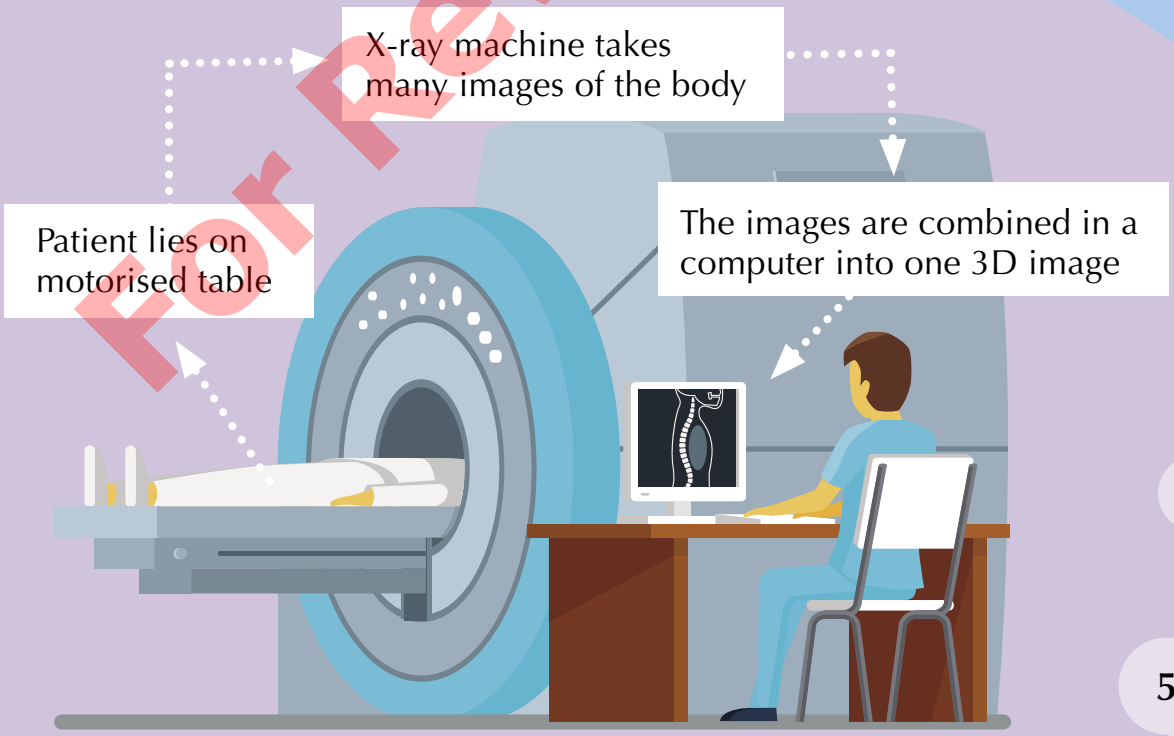
If you ever break a bone, you will need to have an X-ray. X-rays work by sending a kind of **radiation** through you. An X-ray machine produces an image. It shows the bones in your body clearly. Doctors can use this to see if there are any broken bones or other hidden problems. CT **scans** are a type of 3D X-ray that can also be used.



This X-ray picture shows a broken bone in someone's arm.

For Review only

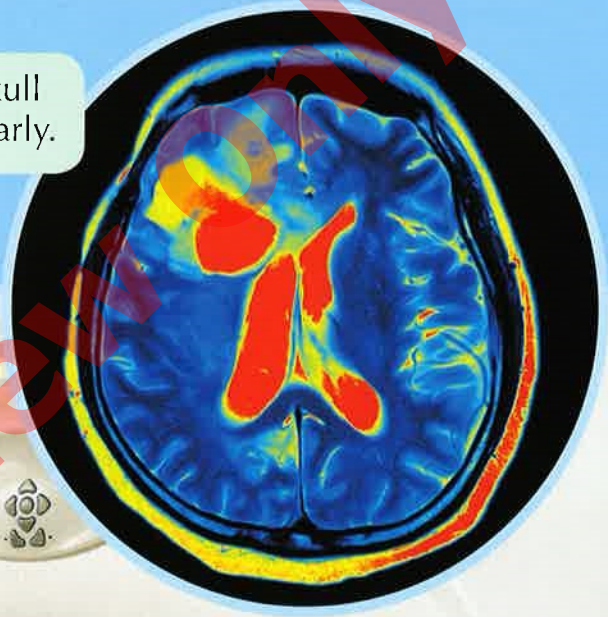
CT scans show a 3D image of the body



MRIs

MRI scans give doctors more information than X-rays. They use powerful magnets and radio waves. They make an image of the inside of your body. X-rays show the bones and other hard parts of your body. MRI scans show bones and other parts of your body too.

An MRI scan of a skull shows the brain clearly.



MRI scans are made inside a large tube.



For Preview Only

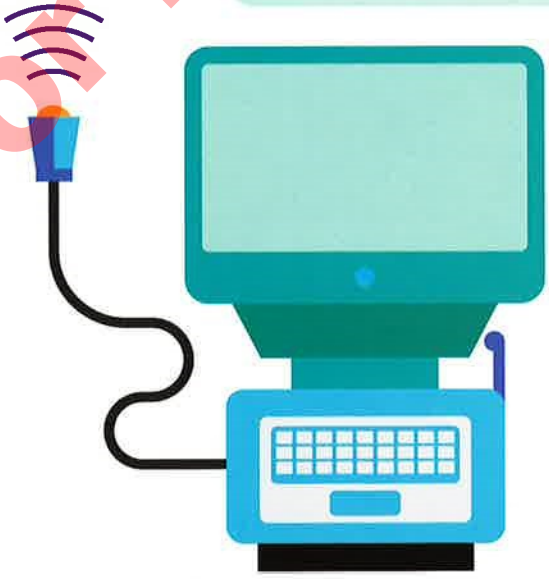
Ultrasounds

Ultrasound scans are made using sounds. The sounds are too high-pitched for us to hear. They bounce back from inside your body and form a picture. Ultrasound scans can show things moving in real time.



Ultrasounds make images of organs, muscles and glands inside our bodies.

A small wand-like device produces sound waves that are sent into the body when the device is pressed against the skin.



For Review Only

Science on the Ward

Science has made nurses' jobs easier, too. One of a nurse's duties is to check your **vital signs**. In the past, nurses had to do this by carrying out tests and writing everything down on paper. Now, a nurse can do many of the same tests with hand-held devices. A computer system helps them track your recovery.



This small device checks the amount of oxygen in your blood.

For Review Only