

## **Surgery: First World War**

### ***Did the First World War advance medical practice in anatomy and surgery?***

The First World War interrupted general medical research, but it created other opportunities for surgeons and doctors. New techniques were needed to deal with the terrible carnage of the battlefields. Surgeons had to develop new skills quickly and instead of competing with each other, they now worked together to find answers. Governments devoted industrial resources to provide equipment and medicine.



**First World War, Royal Army Medical Corps rescue soldiers**

The machine gun, high-explosive shells and poison gas created huge numbers of casualties. One important advance was the creation of portable X-ray machines, which helped surgeons locate bullets lodged inside the body. This dramatically increased their success at removing them. However, surgeons were hindered by the poor sanitary conditions of the trenches, where infection caused gangrene.



**Doctors and nurses treating a wounded soldier**

Another major advance was that it became possible to store blood; this saved many lives. Discoveries about the four main blood types had been made in 1900, and army surgeons in the First World War were able to exploit this knowledge to perform successful transfusions. This eventually led to the setting up of 'blood banks' in 1938. About ten per cent of war wounds were to the head, so eye, face, ear, nose and throat surgery developed rapidly. Also, because of the degree of shelling in trench warfare many soldiers suffered massive injuries, as a consequence major advances were made in the development of artificial limbs.

### **Think about this:**

- The war presented new challenges for doctors: injuries were very severe and likely to need what we now call 'plastic surgery' and skin grafts
- New types of head injuries would require precise and skilful surgery
- Better technology was required to develop artificial limbs.