

X-Rays Worksheet

A History (cloze). Read the text and complete the missing words.

Medical radiology has now existed for over a century. It all started in 1895 when Wilhelm Roentgen discovered x-rays. On 28 December 1895 his manuscript 'On a New Kind of Rays' ____ (1) submitted to the Wurzburg Physical medical Institute. The essential features of x-rays were described and the new discovery aroused tremendous interest. Because the apparatus was available ____ (2) most physics departments, his results could easily ____ (3) repeated.

At the start, the radiographs were made onto glass photographic plates; George Eastman introduced film in 1918. In recent years there has been a digital revolution and radiographic images are now recorded and stored digitally.

Most of the early x-ray work was performed ____ (4) doctors and the departments were often combined with electro-therapeutic departments. However, from about 1903 lay x-ray operators were appointed ____ (5) assistants. Training courses ____ (6) set up and the Society of Radiographers ____ (7) formed in 1920.

X-rays were used ____ (8) therapy from the earliest times. The techniques depended ____ (9) the development of more powerful apparatus, the use of multiple therapy beams and on the use of radium. The doctors in the x-ray department were involved in ____ (10) therapy and diagnosis. It was only ____ (11) the 1930s that doctors were appointed with specific interests in diagnosis or therapy.

B Vocabulary

37.1 Choose the correct word or phrase to complete each sentence. Look at A and B opposite to help you.

- 1 In radiography, barium is used as a contrast (image/medium).
- 2 Tissue which absorbs radiation and appears white on an X-ray is (radiolucent/radiopaque).
- 3 An (enema/injection) is a liquid introduced into the bowel by way of the anus.
- 4 X-rays used to measure the progress of a disease are called (repeated/serial) X-rays.
- 5 If a patient moves during an X-ray, the image may be (blurred/abnormal).
- 6 It's easier to see abnormalities when the lungs are (deflated/inflated).

37.2 Complete the words. Each begins with *radio*. Look at A and B opposite to help you.

- 1 Using radiation to diagnose and treat disease is radio..... .
- 2 Using radiation to make images is radio..... .
- 3 Using radiation to provide treatment is radio..... .
- 4 If something is not penetrable by radiation, it is radio..... .
- 5 If something is penetrable by radiation, it is radio..... .
- 6 A technician who administers X-rays is a radio..... .

C Equipment – C-arm tutorial:

C1 Match the verbs with the nouns

- | | |
|---------------|-------------------|
| 1 push/hit | a) the C-arm |
| 2 turn | b) the picture |
| 3 unlock | c) a tilt |
| 4 take | d) the button |
| 5 save/flip | e) the handle |
| 6 pull/rotate | f) a snapshot |
| 7 make | g) the foot brake |

C2 Watch the video and answer the following questions

- 1 What is the purpose of the video?
- 2 What is the first thing to do when using the machine?
- 3 What kind of profiles are displayed?
- 4 What are the functions of the yellow and green buttons?
- 5 What is the function of the first two locks?
- 6 What two types of tilt are mentioned?
- 7 What happens if the footbrake is in a flat position?
- 8 What is the wig-wag used for?

D X-ray examination

37.3 Complete the radiographer's instructions.

Please stand (1) this board.

Put your hands on the back of your hips and your elbows forward. I'll help you.

(2) your elbows (3)

Keep (4)

In a moment I'll ask you to (5) a deep breath in and hold it.

Breathe in, (6) it.

That's it. Fine. You can breathe out now.

Thank you. I'll need to check the film.

Now I'm going to take a side view.

Can you stand (7) with your right side close to the machine and your arms raised?

E Grammar Corner

4.1 Put the verb into the correct form, present continuous or present simple.

- 1 Are you hungry? ... *Do you want* ... (you / want) something to eat?
- 2 Don't put the dictionary away. (I / use) it.
- 3 Don't put the dictionary away. (I / need) it.
- 4 Who is that man? What (he / want)?
- 5 Who is that man? Why (he / look) at us?
- 6 Alan says he's 80 years old, but nobody (believe) him.
- 7 She told me her name, but (I / not / remember) it now.
- 8 (I / think) of selling my car. Would you be interested in buying it?
- 9 (I / think) you should sell your car.
(you / not / use) it very often.
- 10 Air (consist) mainly of nitrogen and oxygen.

A Read sentences 1–8. If they are correct, put a tick. If they are incorrect, correct them.

1 I have to get up early tomorrow, because my plane leaves at 6 a.m.

2 Do you go to Tom's party this weekend?

3 My neighbours drive me mad! They're always playing really loud music.

4 Mrs Davies usually teaches Spanish, but this term she teaches Italian instead.

5 My dad is always wearing a smart suit to work, but at home he's often wearing a dreadful purple tracksuit!

6 My cousin is a model. She flies to Paris next week for a fashion shoot.

7 How are you usually celebrating your birthday?

8 I'm taking an evening course in art at the moment. It's really good fun!