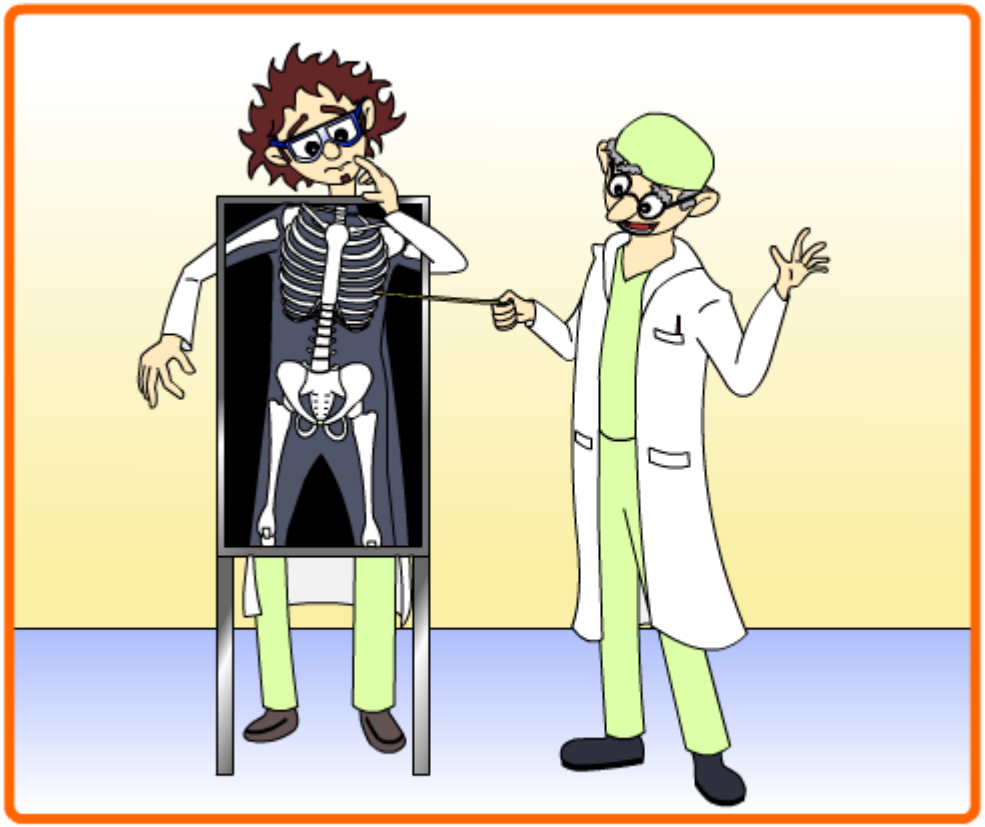
Dangers of Radiation

Dangers of ionizing radiations

The effect of radiation on living tissue

Alpha, beta and gamma are forms of ionizing radiations. This means they are potentially lethal because of their effect on living tissue.

Click start to find out more.



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Dangers of ionizing radiations – activity

Radiation safety

The three types of radiation differ in their effects and physical nature.

All radioactive sources must be handled safely.

The hazard symbol for radiation is shown below:

As well as the normal laboratory safety rules you follow, are there any extra rules concerning radioactivity?

How are radioactive sources used safely?

Radioactive materials could be very dangerous to handle if no **safety precautions** were taken.

This is because people and their clothing could become **contaminated**.

The safety precautions are:

- keep exposure times as short as possible
- monitor exposure with a film dose badge
- label radioactive sources clearly
- store radioactive sources in shielded containers
- wear protective clothing
- use tongs or a robotic arm to handle radioactive materials.

Background radiation

Background radiation is the radiation all around us.

Most of the radioactivity you are exposed to is from natural sources.

How many different sources of background radiation can you think of?

Calculating background radiation

What is your annual level of background radiation?

Background radiation is low level natural and manmade radioactivity in the environment.

But where does background radiation come from?
And is it a real danger to your health?

In this activity you will learn about some of the sources of background radiation and you will calculate your annual dose.

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