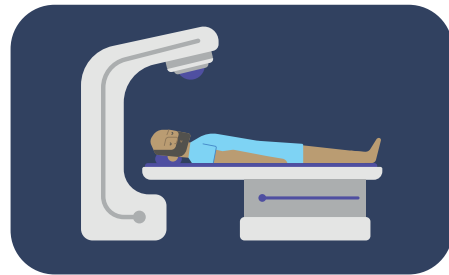


Understanding radiotherapy



What it is

Radiotherapy uses controlled doses of radiation to destroy a patient's cancer cells. Radiation can be administered in a number of different ways. External beam (the most common form) delivers radiation using a machine to target areas where cancer cells are growing. The beam is pointed at the person's cancer from many different angles which converge in the area where cancer cells are growing. This means that the cancerous cells receive the highest dose, whilst minimising the exposure normal, healthy cells nearby receive. Specialist doctors and technicians work together to tailor patients' treatment based on their diagnosis and site of disease and ensure that radiotherapy is safe.

For some cancers, most commonly prostate cancer, small radioactive implants are placed inside the patient's body near to the site of their cancer. This is called internal radiotherapy, or brachytherapy. These implants emit radiation into their close surroundings, affecting nearby cells. The radiation used is not normally able to penetrate into tissues outside of their immediate surroundings, reducing the risk of exposure in other cells. These implants will often breakdown over a period of several days, other implants are removed by the team of specialist technicians looking after the patient's care once they have delivered the correct dose of radiation.

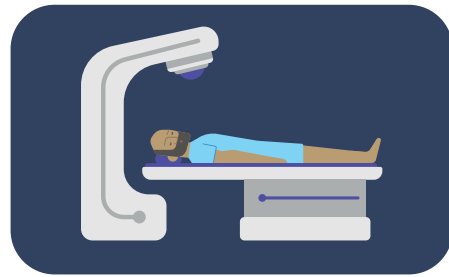
Radiotherapy beams can also be used to target areas where cancers are growing during cancer surgery. This is most commonly used as part of breast cancer surgery, but may be adopted within the treatment of other tumours in future. This is called intrabeam radiotherapy.

Radiation may also be delivered via injection, capsules or drinks. This is called radioisotope therapy.

The method of delivery will depend on the type of cancer that the patient has.

The full Let's Communicate Cancer course is available by clicking [here](#)

Understanding radiotherapy



How it works

Radiotherapy works by causing damage to the person's cancer cells using radiation. This damage causes affected cells to be destroyed. Specialist doctors and technicians tailor patients' treatments to ensure that they receive the most effective care, while minimising side effects as far as possible.

Radiotherapy is often given to patients in a series of small doses called fractions, over a period of a several weeks. As each dose is delivered, more cancer cells are killed. However, healthy cells, which can recover more quickly, repair themselves in-between each dose and this helps to reduce side effects.

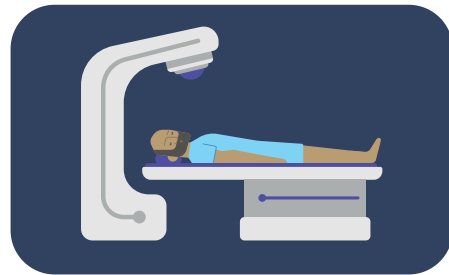


Potential side effects

Short term side effects include tiredness, sore skin, and hair loss in the treatment area. Patients may also experience nausea. The side effects often become more pronounced as patients go through their treatment.

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Understanding radiotherapy



Support in assessing the severity of side effects, treatment recommendations and referral criteria

Guidance regarding assessment of the severity of side effects, alongside OTC treatment recommendations and referral criteria are available in factsheet series 2.

These factsheets cover the following topics: diarrhoea, constipation, nausea and vomiting, peripheral neuropathy, rashes and mucositis.

- diarrhoea
- constipation
- nausea and vomiting
- peripheral neuropathy
- rashes
- mucositis



Please be aware that comprehensive information regarding individual cancer therapies is available from the **Macmillan website**

The full Let's Communicate Cancer course is available by clicking [here](#)