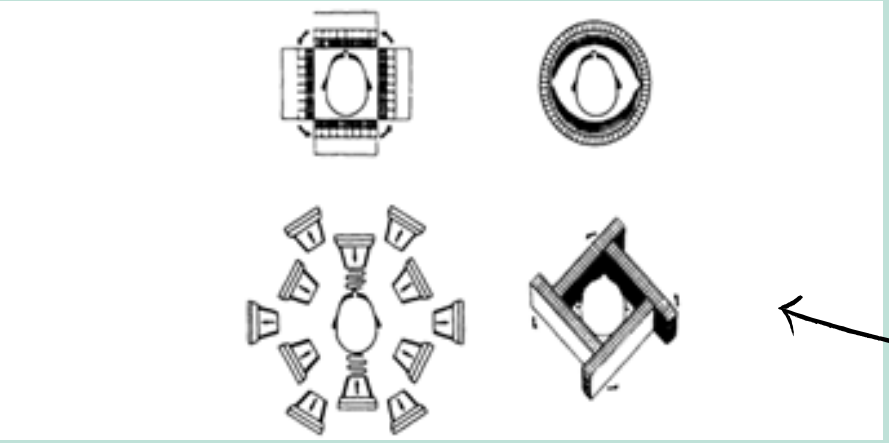
NUCLEAR PHYSICS IN MEDICINE

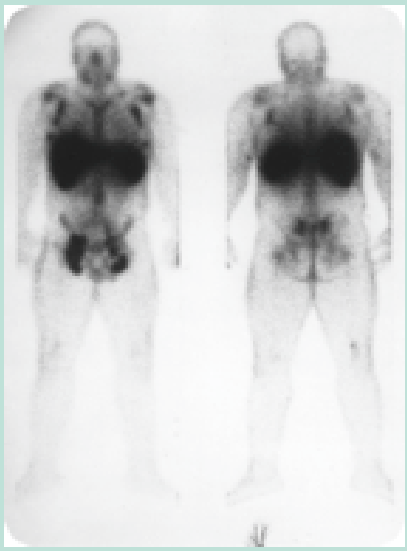
The use of radioactive substances in order to treat and diagnose certain diseases, cancers, etc.

THE INJECTION OF RADIOACTIVE ISOTOPES FOR DIAGNOSTIC

Radioisotope scans can be used to detect tumours.



MEDICINENET.COM, The use of radioactive isotopes, Internet, 12 November 2018.



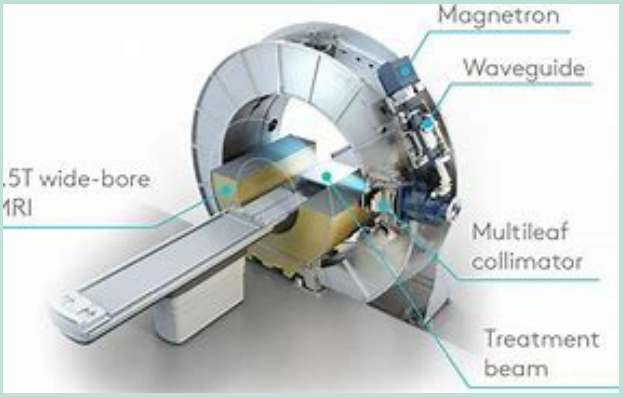
LUMEN, Radioisotopes in Medical Diagnosis and treatment Internet.

SPECT

It is the current major scanning technology to diagnose medical conditions.

THE INJECTION OF RADIOACTIVE ISOTOPES FOR KILLING TUMOURS

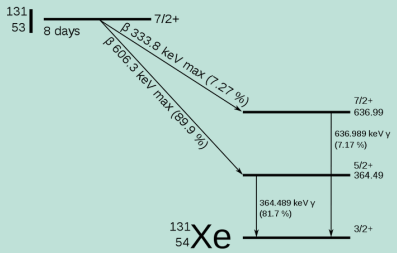
The Injection of radiocative isotopes allows cancer cells to die through high-energy radiation, called ionizing radiation. In this case we can talk about a medical accelarotor, that is called LINAC



MEDGADGET.COM, Elektra introduces MR-Linac system, Internet, 8 May 2017.

THE IODINE 131

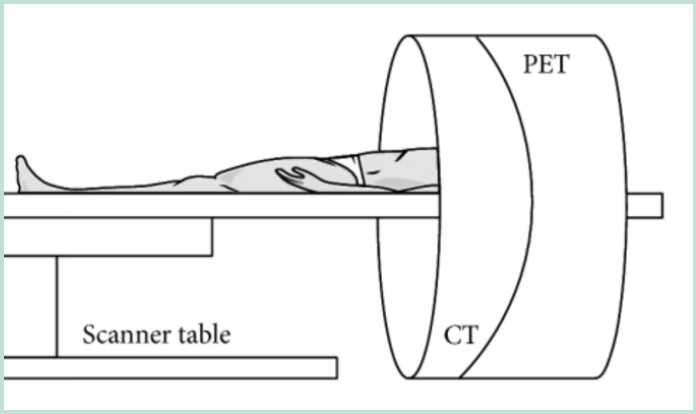
The iodine 131 is a perfect example of a Radioactive Isotope



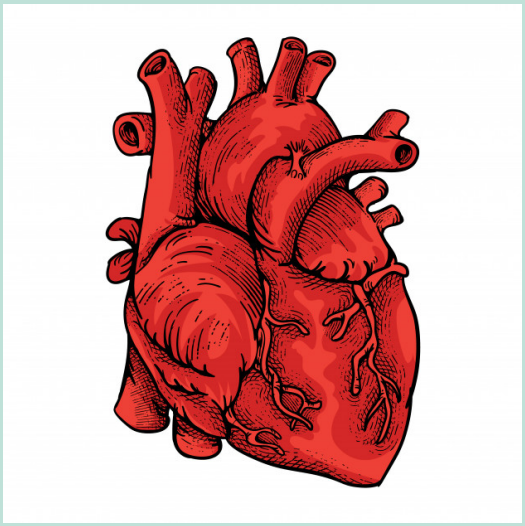
WIKIPEDIA, Iodine-131, Internet, 13 March 2021.

POSITRON EMISSION TOMOGRAPHY

Imaging technique with use of radiotracers.



RESEARCHGATE.COM, schematic representation of PET scanner, Internet, January 2016



FREEPIC.COM, Heart illustration with engraving style Premium Vector, Internet.

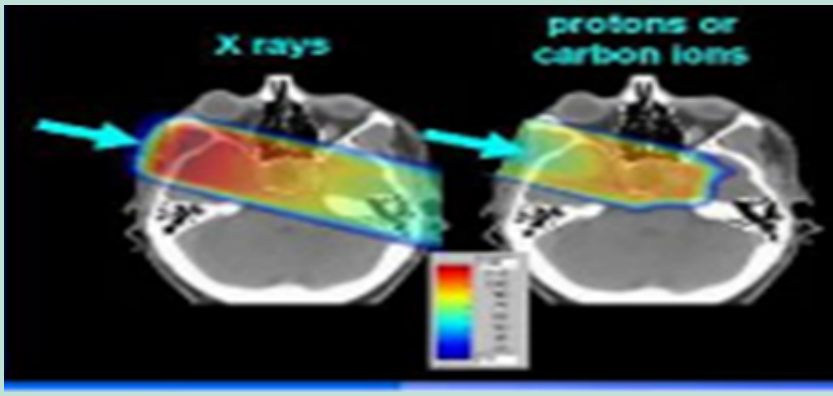
USED TO DETECT

Cancers
Heart problems
Brain disorders
Problem with the central nervous system

HADRON THERAPY

Hadron therapy is much preciser then x-rays .

So less healthy tissues are damaged.



MONTAROU, G., Physics and radiobiology in hadronthera Internet, 17 December 2013.

Dosanjh M., Hadron therapy facilities in operation worldwide under construction and in the planning, Internet, November 2014.

There is still a high potential for growth.

Source: Viktor Vandaele Tim De Backer
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