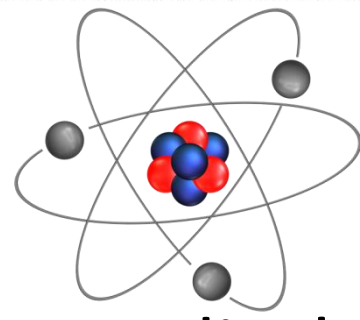




Nuclear apps in Medicine

Nuclear Medicine



Nuclear medicine and radiology are medical techniques that involve radiation or radioactivity to diagnose, treat and prevent disease.

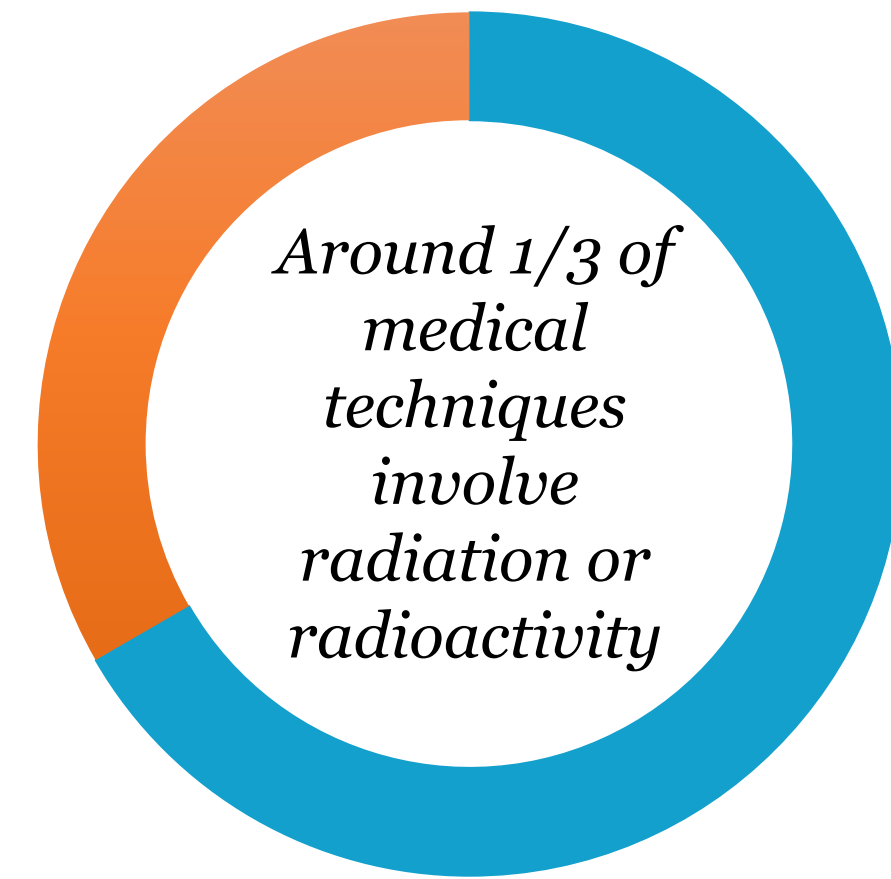
These procedures are among the best and most effective life-saving tools available, they are safe and painless and don't require anaesthesia, and they are helpful to a broad span of medical specialties, from paediatrics to cardiology to psychiatry.

Treatment

Radioisotopes can be used to treat conditions such as hyperthyroidism, thyroid cancer, and blood disorders. Thyroid cancer has a survival rate of 100% in the preliminary stages.

Tens of millions of patients are treated with nuclear medicine each year and more than 10,000 hospitals worldwide use radioisotopes in medicine.

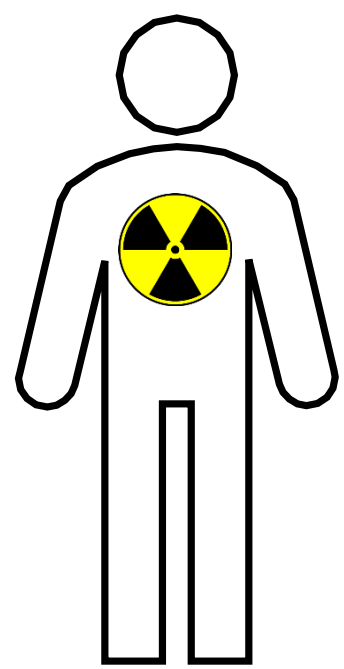
Did you know?



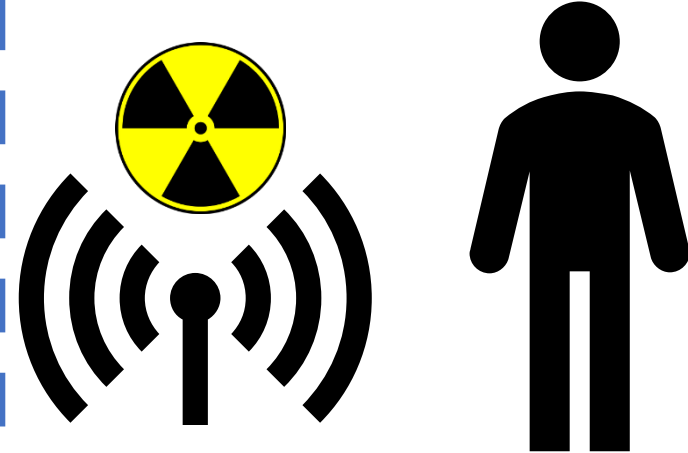
! Employment of nuclear medicine technologists is projected to grow 20 percent from 2012 to 2022, faster than the average for all occupations.

Location of Radiation Sources

Brachytherapy



Teletherapy

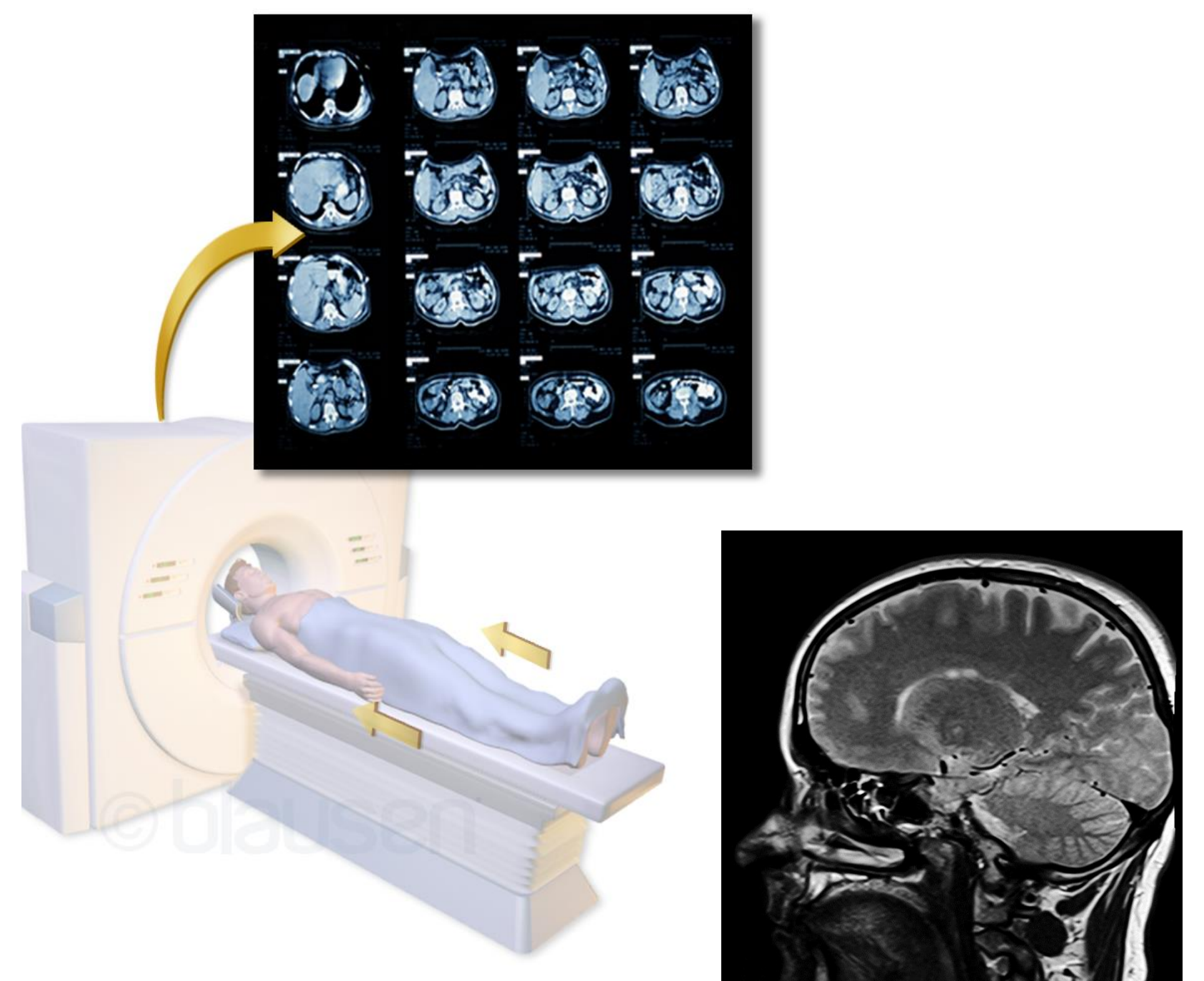


Tumours can be treated by radiation source inside the body or close to the body.

Diagnoses

Nuclear diagnostics procedures are not invasive and generate detailed images of the human body better than other techniques.

Approximately 50 million of nuclear imaging procedures per year are carried out in the European Union.



! STEM (Science, Technology, Engineering and Mathematics) studies provide the required background for medical physics.

UNED, JP.Catalán, M. García, J. Sanz

Acknowledgements & references