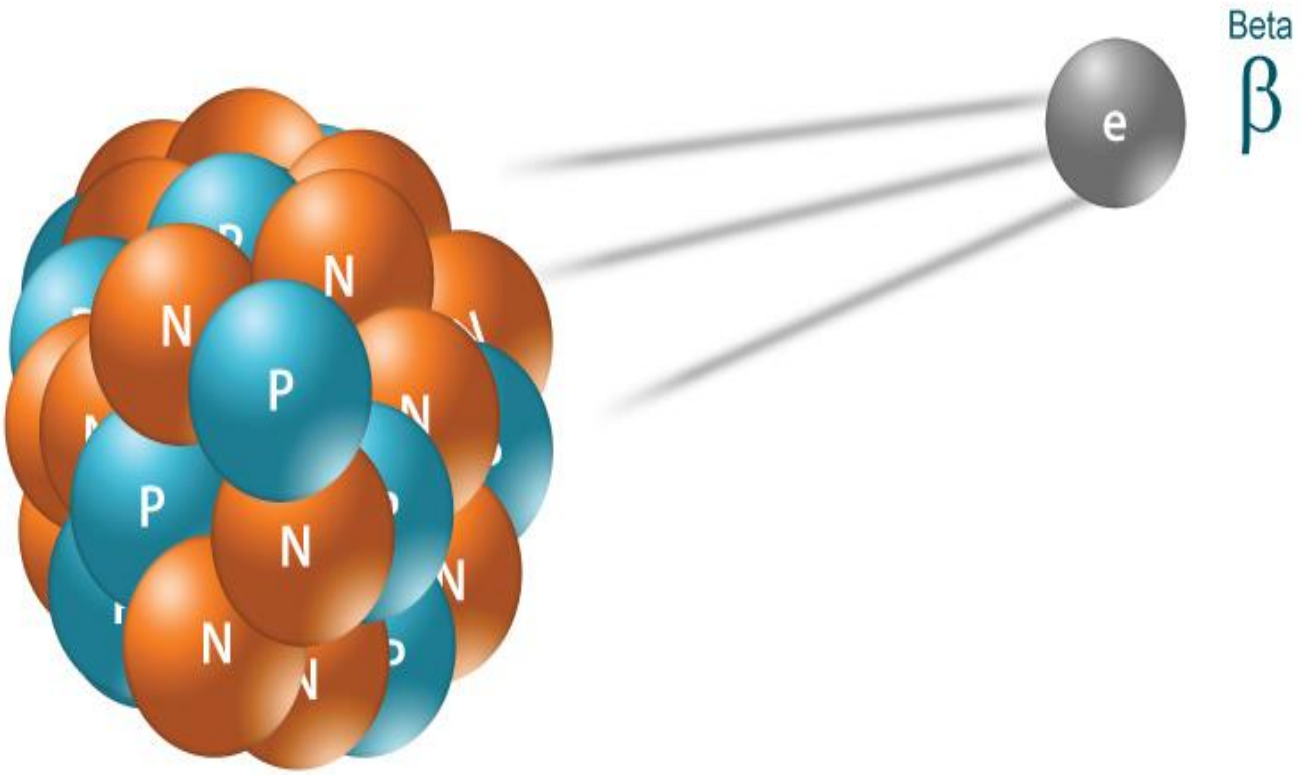
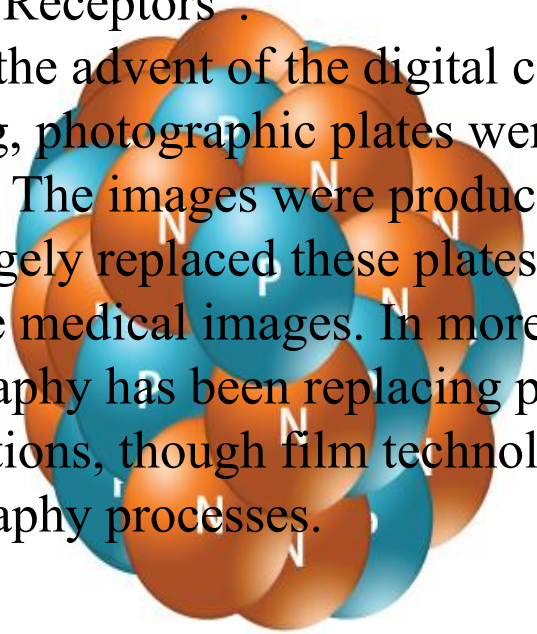
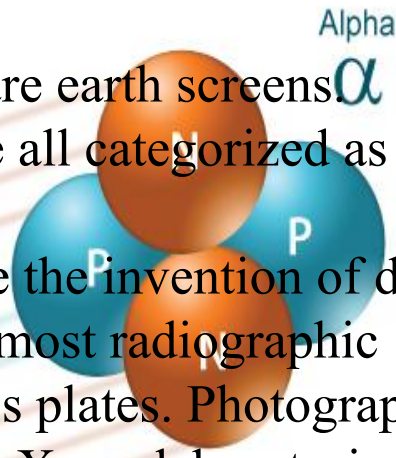
X-radiation



X-radiation (composed of X- rays) is a form of electromagnetic radiation. ...

The detection of X-rays is based on various methods. The most commonly known methods are photographic plates, photographic film in * cassettes, and rare earth screens. Regardless of what is "catching" the image, they are all categorized as "Image Receptors".

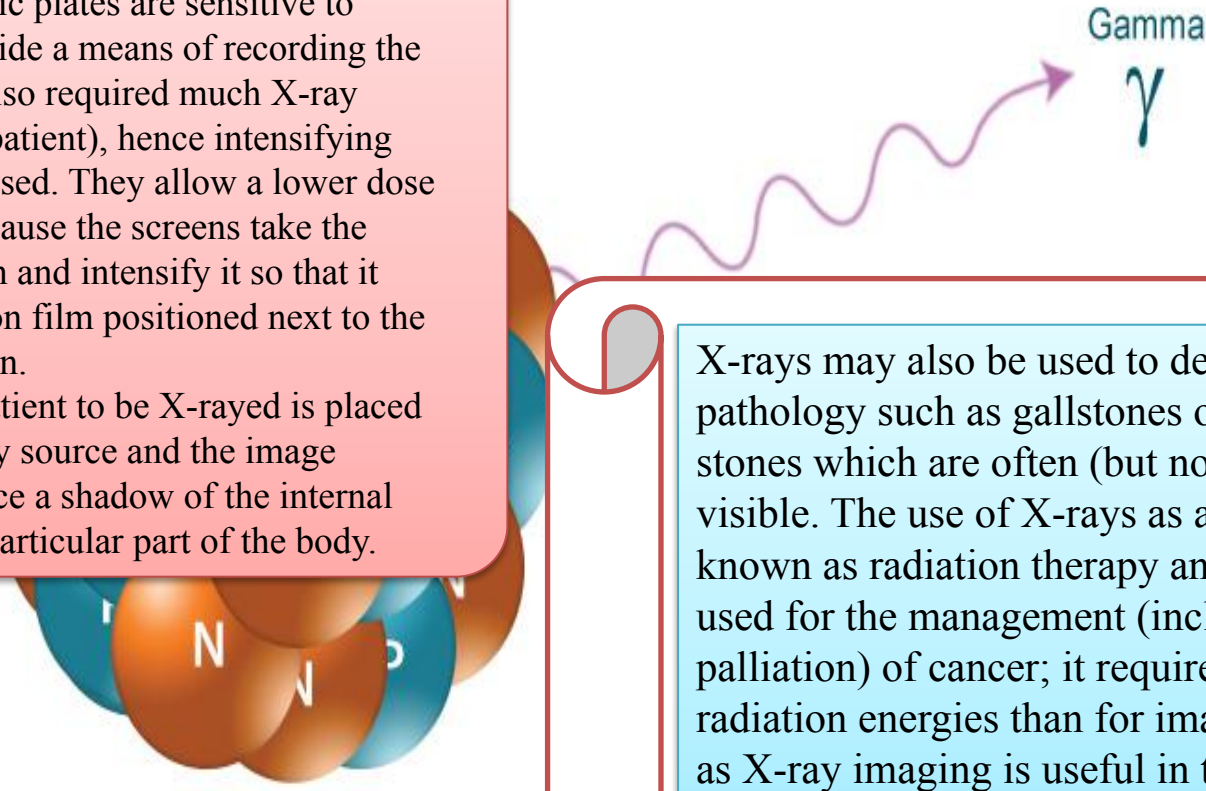




Before the advent of the digital computer and before the invention of digital imaging, photographic plates were used to produce most radiographic images. The images were produced right on the glass plates. Photographic film largely replaced these plates, and it was used in X-ray laboratories to produce medical images. In more recent years, computerized and digital radiography has been replacing photographic film in medical and dental applications, though film technology remains in widespread use in industrial radiography processes.

X-radiation

Since photographic plates are sensitive to X-rays, they provide a means of recording the image, but they also required much X-ray exposure (to the patient), hence intensifying screens were devised. They allow a lower dose to the patient, because the screens take the X-ray information and intensify it so that it car; be recorded on film positioned next to the intensifying screen.
The part of the patient to be X-rayed is placed between the X-ray source and the image receptor to produce a shadow of the internal structure of that particular part of the body.



X-rays may also be used to detect pathology such as gallstones or kidney stones which are often (but not always) visible. The use of X-rays as a treatment is known as radiation therapy and is largely used for the management (including palliation) of cancer; it requires higher radiation energies than for imaging alone, as X-ray imaging is useful in the diagnoses of common oral problems, such as cavities.

I.Answer questions
(Сұрақтарға жауап беріңіз)

- What is X-ray?
- What is based on various methods?
- What is produced right on the glass plates?
- What is placed between the X-ray source and the image receptor?
- What is useful in the detection of pathology of the skeletal system?
- What is a radiation therapy?
- What was used before the advent of the digital computer and before the invention of digital imaging?
- What kind of pathology may X-ray detect?
- Is radiation therapy dangerous nowadays?
- What is X-ray imaging useful for?

II.Сөздерді берілген анықтамамен байланыстырыңыз:

- X-ray
- Radiography
- Detection
- Exposure
- Pathology
- To identify
- Palliation

- Examination of any part of the body for diagnostic purposes by means of X-rays or gamma rays
- The science or the study of the origin, nature and course of disease
- Easing the severity of a pain or a disease without removing the cause
- To recognize
- The perception that something has occurred or some state exists
- The state of being vulnerable
- Electromagnetic radiation of short wavelength produced when high-speed electrons strike a solid target

III.Сөйлемдерді толықтырыңыз.

- 1 is a form of electromagnetic radiation.
- The part of the patient to be X-rayed is not placed between the X- ray source and
- X -rays may also be used to detect pathology such as gallstones or
- 4is based on various methods
- 5 were produced right on the glass plates.
- The use of X-rays as a treatment is known as radiation therapy and is largely used for the management of....
- Some notable examples are very common chest X-ray, which can be used to identify hung diseases such as pneumonia, lung cancer or pulmonary....
- Берілген сөздерді қолдана отырып сөйлемдер құраңыз:
- A form, of electromagnetic radiation, is, X-radiation.
- Were produced, on the glass plates, right, the images.
- New technologies, the digital archiving of images, utilizing, these, also, storage space, saves.
- To be X- rayed, the pait of the patient, between, is placed, the X-ray source, the image receptor, and.
- May, X-rays, be used, also, pathology, to detect, as gallstones, such, kidney stones, or.