

# COMPUTED TOMOGRAPHY (CT)

Previous chapter: 6.3 X-RAY

X-ray computed tomography, also computed tomography (CT scan), is a medical imaging procedure that utilizes computer-processed X-rays to produce tomographic images or 'slices' of specific areas of the body. These cross-sectional images are used for diagnostic and therapeutic purposes in various medical disciplines.

This method simply uses a simple X-ray with detector on the other side but it is mounted on support that is able to rotate around the patient and produce many cross-sectional slices. These slices are next processed using mathematical modeling to produce a 3D image.



Figure 19 - medical CT scan.

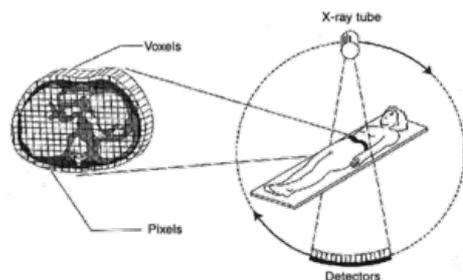


Figure 20 - principle of CT scan, a source of x-ray is rotating around patient, these x-rays are detected with detectors on opposite side, next is produced 3D image.

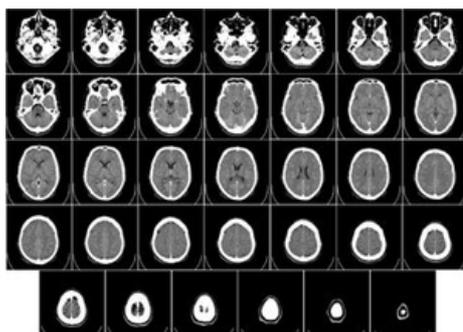


Figure 21 - brain CT scan

Next chapter: 6.5 SINGLE-PHOTON EMISSION COMPUTED TOMOGRAPHY (SPECT)

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