

CT scan

The CT (computed tomography) scanner has been widely used in the past 25 years. The CT scanner was established in a clinical environment. This CT scanner was invented by Godfrey Hounsfield from EMI laboratories, England. He later received a noble prize. His CT scanner provided data that was used to obtain images that took a couple of days. Modern scanners have been optimized to develop raw data in few milliseconds and are now capable of reconstructing an image in a second. With respect to usage and performance, CT scanners have acquired a standard method to diagnose various diseases and disorders.

CT scanners contain two parts, the x-ray source and the x-ray detector. The x-ray source is an x-ray generator used to emit x-rays to a patient's body in a circular manner. The detector grasps the x-rays passing through the muscle, skin, bone as well as other tissues and transforms that part of energy into light. The detector is linked to a computer. The computer construes the data in a two-dimensional cross sectional image, this then represents the x-ray attenuation of each slice of the original object. You can take many slices and can examine the density. Employing the x-ray attenuation, the instantaneous rates of x-ray can be removed by absorption or dispersion can also be determined perfectly. The radiation that goes inside varies from tissue to tissue in density.

The contemporary Computed tomography scanners produce axial or helical images. They are also capable of repeating multiple images. This technique is used for observing cracks and in locating particular features inside an object. CT scanners are helpful in reproducing the composition of various parts of your body. Using this method is found to be beneficial because early detection of diseases is possible. CT scans possess the efficiency of detecting lung cancer, vascular diseases, soft tissue diseases and colon cancer. CT scans are useful in detecting abdomen diseases. The advantage of CT scans comprises of surgical planning, thin slicing imaging, whole body and images facilitating the perfect diagnosis.

Though CT scanners are widely used, an increasing concern regarding the exposure to radiation is observed in patients. Determining the potential risk of radiation has become inevitable for people undergoing whole body CT scan. Studies show that radiation received through a CT scan is higher than any background radiation. Despite the risks coupled with CT scanners, it has become indispensable in the field of medicines. The Spiral CT scanners reproduce images of the lungs and Axial CT scanners form three-dimensional images offering physicians an internal anatomy of all the organs.

CT scanners are of immense use in finding blood clots, tumors of varied size, shape and locations and also in locating lesions. The modern CT scanners have been designed with more upgraded technology providing physicians with a view of the anatomy of the organs. Moreover, A CT scan is painless and accurate. They are simple and fast and are a great relief in emergency cases as they reveal the injuries more accurately and can help to save lives.

About the Author

Jason Smythe is author of this article on [CAT Scan](#). Find more information about [CT Scan](#) here.

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