South-African born US physicist who was awarded a Nobel Prize for Physiology or Medicine in 1979 with Godfrey Hounsfield for their development of the X-ray diagnostic technique computer axial tomography (CAT scan).

While working on the administration of isotopes and film badge calibration at Groote Shuur Hospital Cormack wondered what would happen if the attenuation (amount of beam weakening) of X-rays could be measured following their passage through the body. He thought that such information, if attained from enough different angles, would allow the construction of an image of the body's internal structure, which could be diagnostically useful.

On sabbatical at Harvard University he began work on a mathematical model for construction of such an image. He continued his endeavours with laboratory tests upon his return to South Africa in 1957. Godfrey Hounsfield, working independently in England, had realized that a topographic, or slice by slice, approach was required.

Cormack was born in Johannesburg. After graduating from the University of Cape Town, he left South Africa to work in Cambridge for his PhD. He returned to South Africa briefly as a medical physicist at the University of Cape Town before moving to the USA to join the Physics Department at Tufts University in Medford, Massachusetts, where he was made a professor of physics in 1964.

Following a great deal of work to refine and extend the studies of Cormack and Hounsfield, the first clinical machine for head (CAT) scanning was installed at the Atkinson Morleys Hospital, London, England, in 1971.
APA

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