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Optical Coherence Tomography

National Cancer Institute

Source

National Cancer Institute. *Optical Coherence Tomography*. NCI Thesaurus. Code C20828.

Optical Coherence Tomography (OCT) combines the principles of ultrasound with the imaging performance of a microscope. OCT uses infrared light waves that reflect off the internal microstructure within the biological tissues. The frequencies and bandwidths of infrared light are orders of magnitude higher than medical ultrasound signals, resulting in greatly increased image resolution, 8-25 times greater than any existing modality. In addition to providing high-level resolutions for the evaluation of microanatomic structures OCT is also able to provide information regarding tissue composition.