

Neuroscience of Neuroimaging



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Neuroimaging provides a valuable tool to better understand basic properties of brain structure, function, chemistry, and physiology and also to understand how these properties are altered with disease. Advances in magnetic resonance imaging (MRI) allow for the quantification of a range of brain tissue properties including regional brain morphometry, tissue quality, and neurovascular dynamics. Positron emission tomography (PET) allows for the quantification of neurochemical and metabolic properties of the brain. These techniques plus a range of other data acquisition and analysis procedures allow an unprecedented view into the developing, mature, and diseased brain. This presentation will provide a brief selective review the commonly used neuroimaging modalities, their neuroscientific basis, and their utility in the study of brain health and disease.

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