

NUROPSYCHOLOGY

METHODS OF INVESTIGATING BRAIN

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INTRODUCTION

- investigating the brain play important role to identify the disorder and problems. The neuropsychological assessment is an integral part of the clinical investigation of patients suffering from epilepsy and other behavioral problems.

Methods

- Electroencephalogram (EEG scan).
- Positron Emission Tomography (PET scan).
- Magnetic Resonance Imaging (MRI scan)
- Magnetoencephalography (MEG scan)

Electroencephalogram (EEG scan)

- Dates back to medicine of the 1920s
- Often used to monitor patients with seizures.
- High temporal resolution.
- Detects brain functions without needing stimuli .

Positron Emission Tomography (PET scan)

- Maps the amount of radioactivity in the brain.
- Uses the same machinery as the CT scan.
- Is an image of the brain while activate .

Magnetic Resonance Imaging (MRI scan)

- Has relatively high spatial resolution.
- Produces three-dimensional scans of the brain
- Creates very detailed images of the brain and surrounding tissue

Magnetoencephalography (MEG scan

- A direct measurement of the brain functions
- Has a high spatial resolution of brain image
- Shows images “almost” in real time
- Relies on the basic principles of the EEG

THANK YOU