



NEUROLOGICAL PROCEDURES

What is a neurological examination?

A neurological examination assesses "motor and sensory skills, the functioning of one or more cranial (brain) nerves, hearing and speech, vision, coordination, and balance."



Tools used to conduct a neurological examination include a tuning fork, flashlight, reflex hammer, ophthalmoscope (to see inside the ear), and a small needle.



Some tests require the services of a specialist to perform and analyze the results.

Types of Brain Scans

Computed Tomography (CT or CAT scan)



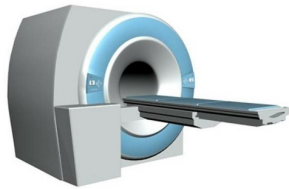
- Painless procedure with low radiation
- Produces a picture of the brain and spine using a combination of X-rays and computer technology
- Scanning takes about 30 minutes

Electroencephalography (EEG)



- Painless, risk-free test used to monitor brain activity
- Small metal disks, called electrodes, are pasted on the scalp and detect the electrical energy of the brain
- Patients often sit in a chair or on a bed during the test
- Testing usually takes one hour but can last up to three

Magnetic Resonance Imaging (MRI)



- Painless, risk-free test
- A large tube-shaped machine sends pulses of radio waves from a scanner to a computer, producing detailed images of organs and structures within the body
- Testing usually takes one hour

Positron Emission Tomography (PET)



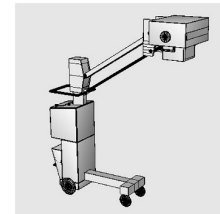
- Painless and relatively risk-free test
- Uses a small amount of radioactive substance to evaluate brain metabolism and function
- A PET scan may be ordered as a follow-up to a CT or MRI scan

Ultrasound Imaging



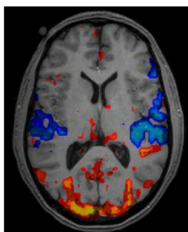
- Painless, risk-free test
- An ultrasound uses high-frequency sound waves to analyze blood flow in the brain
- Imaging takes 15-20 minutes

X-Ray



- Painless, fast, non-invasive procedure
- A technician uses low-dose ionized radiation through the body and onto a photographic plate

Functional MRI (fMRI)



- Painless, risk-free test
- Uses the blood's magnetic properties to create images of blood flow to particular areas of the brain

Fluoroscopy



- Type of X-ray that uses a beam of low-dose radiation to produce continuous images of a body part in motion
- Used to evaluate the flow of blood through arteries



NIMICT

NATIONAL INITIATIVE FOR
MINORITY INVOLVEMENT IN
NEUROLOGICAL CLINICAL TRIALS

Reference:

http://www.ninds.nih.gov/disorders/misc/diagnostic_tests.htm