MEGIN

MEG: Unlocking the future of functional neuroimaging

Our mission is to satisfy the thirst to understand the human brain. **MEGIN** is the global leader for magnetoencephalography (MEG) technology. We are experts in detecting and visualizing brain function, working together with clinicians, scientists, and healthcare organizations, as well as other partners to develop, deliver and support our MEG technology. Our technology and its applications transform neuroscience research and clinical decision making to improve people's health.

MEG is an imaging technique that measures ongoing brain activity on a millisecond-bymillisecond basis, showing where in the brain the activity is produced.

- non-invasive
- silent
- no applied magnetic fields, radiation, or injections of any kind

Watch our Spotlight interview series with key thought leaders **www.megin.fi/megin-spotlights**

Sign up for a free MEGIN Masterclass educational webinar by a guest speaker **www.megin.fi/megin-masterclass**



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MEGIN TRIUXTM MED





Operational and maintained devices are including but not limited to TRIUX™ neo.

Using MEG Alongside Other Modalities

fMRI is used to localize brain functions prior to surgery. This offers an indirect measure of brain activity with poor temporal resolution.	>	MEG offers excellent temporal and spatial resolution. MEG is a direct measure of electrophysiological activity within the brain and may therefore more accurately detect actual brain activity.
Long-term monitoring by EEG requires large numbers of electrodes to be consistently positioned on the subject's head. Localization accuracy is poor due to the conduction of the signal through the skull and the scalp.	>	Greater accuracy of source localization is possible with MEG as the skull and scalp are transparent to the magnetic signals, allowing a consistent, clean signal. Propagation of epileptic activity from one area of the brain to another can be monitored with MEG.
SPECT is highly invasive. It requires a contrast medium to be injected and the patient to be having an epileptic seizure.	>	MEG is non-invasive. The patient experience is peaceful and comfortable. There is no need to inject contrast agents or require patients to undergo epileptic seizures. Many patients fall asleep during their MEG scan.
Intracranial EEG is an accurate technique for localizing and confirming epileptic areas. However, it requires brain surgery and has limited spatial coverage and resolution.	>	MEG does not require placing invasive electrodes. MEG can be used to monitor most brain areas completely non-invasively.

MEG has allowed us to perform brain surgery in children more safely and with fewer complications. It has extended our surgical capabilities in children with epilepsy to those who might not have been recognized as surgical candidates in the past. MEGIN's technology will help us continue this important work.

> **Frederick Boop, MD** Chair of the Department of Neurosurgery

- Le Bonheur Children's Hospital



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*Copyright 2021 © MEGIN – TRIUX[™] neo is available for sale in the European Union, UK, Japan, Canada, the United States, as well as certain other countries. In other geographical areas, contact your local MEGIN representative. TRIUX[™] neo is approved for use to non-invasively localize regions of epileptic activity within the brain and, in conjunction with other diagnostic data, in neurosurgical planning. All other applications are investigational.