



EEG

ELECTROENCEPHALOGRAPHY



**ELMIKO EEG
SYSTEM**

elmiko
Create to Help

EEG

EEG Biofeedback

NEUROFEEDBACK

VEEG

VIDEO-EEG

Holter EEG

aEEG/CFM

CONTINUOUS BRAIN ACTIVITY MONITORING

Polysomnography

DIAGNOSTICS OF SLEEP DISORDERS, PARASOMNIAS, BRUXISM

ADVANCED PATIENT Database

Test monitoring



ADVANCED Analyses

- FFT
- brain mapping
- QEEG
- TPM
- DSA
- CSA
- BSI
- and others

Doppler TCD

VETERINARY PRACTICE

CogniVET



Create to Help

THE ELMIKO EEG SYSTEM PROVIDES SOLUTIONS FOR:



DIAGNOSTICS



THERAPY



SCIENCE



EEG METHOD

Electroencephalography (EEG) is a non-invasive method used to record the brain's bioelectrical activity, involving the recording of brain waves using electrodes placed on the surface of the scalp.

It allows for real-time assessment of cerebral functions, the diagnosis of epilepsy and sleep disorders, monitoring of neurosurgical procedures, and tracking the progression of neurodegenerative diseases. Since the discovery of brain waves by Hans Berger in 1924, this method has become one of the most important tools in neurology and psychiatry.



APPLICATIONS OF THE EEG SYSTEM

EEG devices/methods/studies are utilised in all facilities involved in the diagnosis and imaging of brain activity:

- Neurology wards,
- Psychiatric wards,
- Intensive care units (ICUs),
- Emergency medical services,
- Specialist clinics,
- Neurological rehabilitation centres,
- EEG Biofeedback therapy clinics,
- Addiction treatment centres,
- Nursing homes,
- Hospices,
- Research and academic institutes,
- Veterinary clinics.

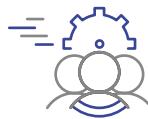


INDICATIONS FOR EEG EXAMINATION

EEG examination is recommended in the diagnosis and monitoring of numerous neurological conditions and brain disorders, including:

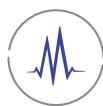
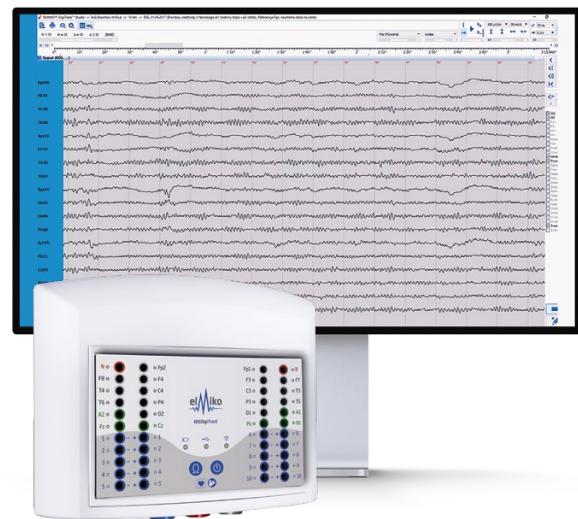
- **Epilepsy** - detection, seizure classification, localisation of focal areas, and monitoring of treatment.
- **Neurodegenerative diseases** - diagnosis and monitoring of Alzheimer's and Parkinson's diseases, and other dementia syndromes.
- **Brain strokes** - assessment of cortical damage, functional prognosis (rehabilitation) in the acute and chronic phases.
- **Injuries and encephalopathies** - diagnosis of post-traumatic disorders, toxic and metabolic encephalopathies.
- **Consciousness disorders** - assessment of cerebral function in comatose and confusional states, and in Intensive Care Units (ICUs).
- **Loss of consciousness and syncope** - determining the neurological etiology of episodes, especially epileptic seizures.
- **Sleep disorders** - analysis of sleep architecture (insomnia, narcolepsy, apnoea) and pathological patterns.
- **Neurodevelopmental/mental disorders** - complementary diagnostics (autism, ADHD, schizophrenia, depression, bipolar disorder).
- **Neurotherapy** - essential baseline assessment for the personalization of protocols in EEG Biofeedback, TES, and TMS therapies.
- **Research uses** - development of neurophysiology, cognitive functions, and brain-computer interfaces (BCI).





ELMIKO TECHNOLOGY INNOVATIVE FEATURES

- **A complete EEG system**, providing a compact solution ready for immediate deployment in hospitals, clinics, laboratories or private practices.
- **Ergonomic amplifier** enabling various channel configurations (22 reference channels and 10 bipolar channels) and high measurement precision compliant with prevailing medical standards.
- Simple, **intuitive interface** facilitates examination, ensuring ongoing control of signal quality and electrode impedance.
- Advanced **analytical tools** for signal filtering and analysis, 2D/3D mapping and automatic generation of visual reports.
- The EEG report function allows for the **compilation of FFT analysis with mapping, comparison of recording segments, and export of the report to a text document or PDF** for sharing and archiving purposes.
- Access to a patient database, ensuring **secure data registration** and **archiving**, guaranteeing compliance with GDPR requirements.
- Comprehensive **technical and service support**, plus **regular updates**, guarantee the system's stability, compatibility with earlier versions, and adherence to the latest clinical standards.



THREE VARIANTS OF THE ELMIKO EEG SYSTEM

ELMIKO offers EEG systems customised to the varying requirements of medical facilities:



MOBILE
ELMIKO EEG System



SINGLE-STATION
ELMIKO EEG System



MULTI-STATION
ELMIKO EEG System

- **ELMIKO MovEEG (ExG-32) mobile system** - a fully portable workstation with an amplifier, laptop, and case, ideal for at-home examination, bedside monitoring on hospital wards, or in private neurological practices.
- **ELMIKO SimplEEG (ExG-32) single-station system** - a compact diagnostic workstation with an amplifier, PC, and monitor, available in a stationary version, designed for practices, clinics, and smaller medical centres.
- **ELMIKO MultiEEG (ExG-32) multi-station system** - an advanced solution with an amplifier and two operator stations (PC + monitor), optimising workflow in high-throughput EEG laboratories, clinical hospitals, and diagnostic centres.

Each variant provides advanced diagnostics in compliance with current medical standards.



INNOVATIVE MODULES/FUNCTIONS

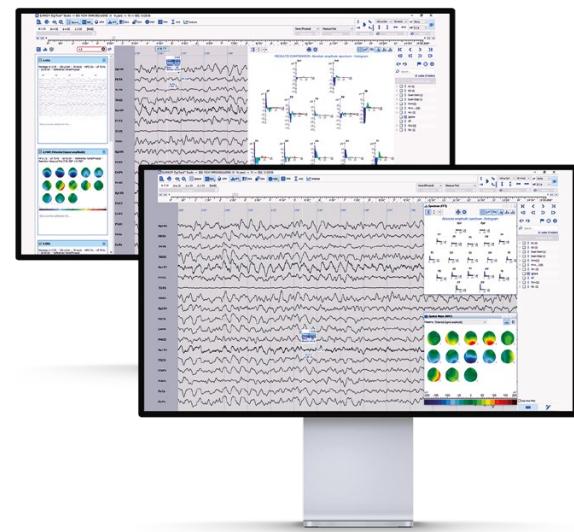
Video Recording (VEEG) - integration of the EEG study with video recording allows for simultaneous analysis of the bioelectrical signal and the clinical image, thereby increasing diagnostic accuracy.

The **ELMIKO aEEG/CFM** module enables long-term monitoring of cerebral activity in neonates and patients in intensive care units, supporting clinical decision-making.

The **remote study description feature**, useful in telemedicine, allows specialists to quickly access EEG recordings regardless of their location.

Automatic analyses support clinicians in interpreting results, facilitating the segmentation and identification of characteristic patterns.

The **print queue** optimises the documentation process, ensuring efficient report generation and archiving, as well as saving personnel time.



The **ELMIKO EEG Biofeedback** module allows for neurotherapy and neurotraining by measuring, analysing and visualising the brain's electrical activity.

ELMIKO EEG SYSTEM ACCESSORIES

- **Reusable caps** (MultiCap-Cup, PTS, silicone, with built-in electrodes and cables) and disposable caps (mesh).
- **Cup electrodes**, reusable or disposable, designed for both short-term and long-term monitoring (LTM) studies, ensuring high-quality signal transmission.
- **Earlobe electrodes** coated with silver chloride (AgCl) in the recording part, to ensure the highest quality of the recorded signal.
- **Cables** suitable for connecting electrodes to various devices currently available on the market, as well as adapters for automated caps, electrodes, and wires.
- Conductive and abrasive-conductive **pastes and gels** safe for sensitive scalp skin.

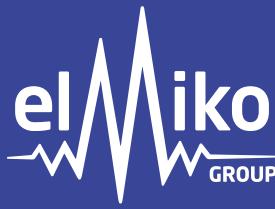


THE EEG SPECIALIST

The path to becoming an EEG specialist combines medical or technical education, specialised training, and clinical practice.

- **AKSON Education Centre** offers licensed training in neurodiagnostics and neurotherapy, **conducted by recognised, world-class specialists**.
- Our programme is a key step in preparing for the **licensing examination** of the Polish Society of Clinical Neurophysiology.
- Completion of the AKSON training is a **formal requirement** for applying for the licence.
- Upon passing the PTNK licensing examination, **physicians** obtain the authorisation to interpret and report on EEG studies (a minimum of 1500 EEG recordings is required).
- In turn, **medical technicians** (after 3 years of internship and performing 1000 examinations) obtain the right to perform EEG examinations independently.





Create to Help

The **ELMIKO GROUP** is a Polish brand with extensive, international experience, providing interdisciplinary support to clinicians and therapists in neurology and related fields. Together, we provide high-quality equipment and modern diagnostic methods, while simultaneously training specialists and focusing on patient well-being.



Our brands



ELMIKO is a manufacturer and distributor of cutting-edge medical apparatus and innovative solutions for neurology and neurotherapy, including systems for EEG, CFM, EEG Biofeedback, tES, TMS, and EMG.

The **AKSON Education Centre** organizes and conducts training in neurodiagnostics and neurotherapy for physicians, medical technicians, psychologists, educationalists, and therapists, including EEG, EMG, QEEG, EEG Biofeedback, tES, TMS, and others.

NEURODIAGNOSTYKA, a centre for neurological diagnostics and neurotherapy, provides services to individual patients. It offers services on-site, in neurological clinics and at the patient's home, as well as providing diagnostic services and equipment leasing in hospitals and clinics.

ELMIKO VET, a manufacturer of veterinary neurological equipment. It offers advanced solutions that support veterinary clinicians in the field of animal neurology and neurotherapy, including EEG diagnostics, and pain management and treatment.



ELMIKO BIOSIGNALS
Sp. z o. o.



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