

# 24<sup>th</sup> International Conference on Neurology & Neurophysiology

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# **Market Analysis**

The <u>neurophysiology</u> devices and equipment market consist of sales of neurophysiology devices and equipment and related services. Most prevalent monitoring techniques under this market are <u>Electroencephalography</u> (EEG), electromyography/ electroneurography (EMG/ENG) and the recording of evoked potentials (EP). These equipment and techniques are helpful in dealing with different functions of the nervous system such as spinal cord & peripheral nerve dysfunction brain alterations and nerve damage.

The global <u>neurophysiology</u> devices and equipment market was valued at about \$1.19 billion in 2018 and is expected to grow to \$1.51 billion at a CAGR of 6.2% through 2022.

North America was the largest region in the neurophysiology devices and equipment market in 2018. This region is expected to remain the largest during the next five years. The neurophysiology devices and equipment market in Asia Pacific is forecasted to register the highest CAGR during 2018-2023.



The major factor responsible for the growth of neurophysiology device and equipment market is the increasing prevalence of neurological disorders, worldwide. <u>Neurological disorders</u> are identified as one of the most prevalent disorders out of all the recurring ailments. There are more than 600 neurological disorders like <u>brain tumour</u>, <u>epilepsy</u>, <u>Parkinson's disease</u>, <u>Alzheimer's</u> etc. In 2015, these disorders were ranked as the leading cause group of Disability Adjusted Life Years (DALYs), which is the number of years lost due to ill-health, disability or early death. The increasing number of cases of neurological diseases and growing count of patients is leading to the increasing demand

for the devices used in the treatment of such disorders. For example, as per the North American Brain Tumour Society, around 700,000 people in the region were suffering from Brain Tumours in 2015, which increased by around 78,000 people in 2016. Similarly, the <u>Alzheimer's Association</u> reported that between 2017 and 2025, number of Alzheimer cases is expected to rise by around 14% in the U.S. This would increase the demand for medical devices used in the treatment of neurological disorders, thus driving the Neurophysiology device and equipment market during the forecast period.

The market for neurophysiology devices and equipment is restricted by the high cost of <u>neurodiagnostic</u> procedures. The treatments available for neurophysiological disorders are very expensive due to the advanced technology used in this equipment. High cost of procedure leads to decrease in demand for these treatments because of low affordability, especially in low income countries, thus restraining the growth of the market. For example, a survey conducted in 2015 by NCBI highlighted that the availability of EEG and EMG was significantly correlated with higher income group countries. Out of the surveyed low income countries, only the top 20% could afford <u>neurodiagnostic</u> tests and in lower-middle-income countries more than 40% of the population were unable to afford this treatment, thus limiting the growth of the market.

Companies in the neurophysiology devices and equipment market are investing in advancement of technology to increase the efficiency of these devices.



In the USA, <u>American Association of Neurological Surgeons</u> (AANS) and the <u>Congressof Neurological Surgeons</u> (CNS) AANS/ CNS regulate neurology devices including neurophysiology devices. There are two methods that manufacturers can use for premarket approval for neurophysiology devices. The first method consists of conducting clinical studies and submitting a premarket approval (PMA) application that includes evidence providing reasonable assurance that the device is safe and effective. The other method involves submitting a 510(k) notification demonstrating that the device is substantially equivalent to a device already on the market (a predicate device) that does not require a PMA.

Major players in the market are <u>Medtronic Plc</u>, <u>Nihon Kohden</u> <u>Corporation</u>, <u>Dr. Langer Medical Gmbh</u>, <u>Natus Medical</u> <u>Incorporated</u> and <u>Inomed Medizintechnik</u>.

## Importance & Scope:

The Journal of Neurology & Neurophysiology (JNN) is a broad-

based journal founded on two key tenets: To publish the most exciting researches with respect to the subjects of Neurology and Neurophysiology. Secondly, to provide a rapid turn-around time possible for reviewing and publishing and to disseminate the articles freely for research, teaching and reference purposes.

The Journal of Neurology and Neurophysiology (JNN) prioritizes the study of central nervous system and its function, connected to translational science, neurology, neurophysiology, neurological disorders, neurobiology, psychology, neuroanatomy, electrophysiology, cognitive sciences and its relation to brain sciences

It is basically aimed at the Clinical Practitioners, medical/ health practitioners, students, professionals and researchers and professional bodies, policy makers and institutions.

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### **Target Audience:**

Neurologists, Neurosurgeons, Neurophysiologists, psychiatrists, physiatrists, Pharmacists, Research scientists, Neurology Organizations and societies, Pharmaceutical (drug design and discovery) companies, Neuro and CNS drug Industries, Neuroscience associations & foundations, Professors and Students from Academia in the study of Neurology and Neurophysiology and researchers who utilize neurophysiological techniques and knowledge in the diagnosis and management of patients with disorders of the nervous system

## Top Universities around the globe

- Dalhousie University
- Leiden University- Neither land
- Temple University USA
- University Oklahoma
- Boston Coll USA
- Florida International University
- University California Davis
- University Sheffield
- University Manchester
- University of Nottingham
- Cardiff University
- University of Toronto Canada

#### **Related Companies/Industries:**

All around the globe there are 6000 hospitals working on Neurology

Some of them among them are:

- Johns Hopkins Hospital
- World Brain Center Hospital
- Duke University Hospital
- Edward Hospital
- Munson Medical Center

#### Top companies around the globe:

- Janssen Pharmaceuticals
- Pfizer
- Eisai
- Novartis Pharmaceutical Corporation
- Actinogen Limited
- Alector LLC
- AlzProtect SAS
- TauRx Therapeutics Ltd
- Pacific Northwest Biotechnology
- Tautatis Incorporated
- Forest Laboratories

#### Top companies in Italy:

- Rottendorf Pharma GmbH
- HRblue AG
- msg industry advisors AG
- Takeda GmbH
- Fresenius Kabi Germany GmbH
- HEXAL AG
- Glatt Pharmaceutical
- Midas Pharma GmbH

# **Related Associations and Societies:**

- American Clinical Neurophysiology Society
- American Physiological Society
- American Board of Psychiatry and Neurology (ABPN)
- American Neurological Association (ANA)
- American Academy of Neurology
- American Society of Neuroimaging
- American Association of Neurological Surgeons