

## **Global Nerve Monitoring System - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029**

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### **Report description:**

The Global Nerve Monitoring System Market size is estimated at USD 1.41 billion in 2024, and is expected to reach USD 1.85 billion by 2029, growing at a CAGR of 5.52% during the forecast period (2024-2029).

The emergence of the COVID-19 pandemic harmed the world economy and the healthcare system. According to the study 'Nerve conduction study and electromyography findings in patients recovering from Covid-19 - Case report,' published in February 2021, nerve conduction studies and electromyography findings suggest a direct action of COVID-19 on nerves and muscles. SARS-CoV-2 demyelinating polyneuropathy and elements of myopathy could be new pathological entities to be considered in COVID-19 management. Thus, implementing nerve monitoring techniques to manage COVID-19 has increased the demand for these devices, thus impacting the market growth. However, the market growth was hampered due to the temporary lockdown in the manufacturing plants, shortage of skilled labor, and increasing cases of COVID-19 inside the manufacturing plants, which has led to outages, thus, impacting the market. Hence, the above factors indicate that COVID-19 significantly impacted the studied market.

The factors propelling the studied market growth are clinical benefits associated with nerve monitoring procedures and the rising use of nerve monitoring in trauma cases. Additionally, product launches, approvals, growing research and development activities, and strategic initiatives by key market players are expected to contribute to significant market growth.

According to a study published by the British Heart Foundation in July 2020, there were approximately 7.5 million people with heart disease in the United Kingdom and nearly 170,000 deaths each year. An average of 460 fatalities each day or one death every three minutes happen in the United Kingdom due to cardiovascular disorders (CVDs). Furthermore, to a February 2021 update by the World Health Organization, approximately 1.71 billion people have musculoskeletal conditions worldwide. Due to

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the high burden of chronic diseases, the incidences of surgeries are also expected to increase, which may need the monitoring of nerve functioning. This factor boosts the demand for nerve monitoring systems globally, thus, driving the market.

Additionally, product launches in the studied market are expected to introduce technologically advanced products, leading to lucrative market growth. For instance, in June 2021, NeuraLace Medical, Inc., a medical device company focused on improving pain relief among patients suffering from debilitating chronic pain, received FDA 510(k) clearance for Axon Therapy to non-invasively stimulate peripheral nerves and provide chronic nerve pain relief. Additionally, in March 2022, Researchers from the Korea Advanced Institute of Science and Technology (KAIST) developed a mind-reading system for decoding neural signals from the brain during arm movement. This system uses electroencephalography (EEG) and electrocorticography (ECoG) techniques.

Moreover, strategic initiatives such as partnerships, expansions, and acquisitions will also lead to significant market growth. For instance, in April 2022, Assure Holdings Corp. entered into a group purchasing agreement ('GPO') for intraoperative neuromonitoring services with Conductiv. The agreement allows Conductiv members, which includes 500 hospitals and surgery centers and more than 50 health systems, to take advantage of special pricing and pre-negotiated terms for Assure's Joint Commission accredited intraoperative neuromonitoring services.

Therefore, owing to the aforementioned factors, the studied market is expected to grow significantly during the study period. However, limited awareness about nerve monitoring among healthcare professionals is expected to hinder the market growth during the forecast period.

#### Nerve Monitoring System Market Trends

##### Neurosurgery Segment is Expected to Account for the Large Market Share Over the Forecast Period

Neurosurgery involves treating people with injuries, diseases, or disorders of the brain, spinal cord and spinal column, and peripheral nerves within all body parts. The neurosurgery segment of the nerve monitoring system market is expected to have a positive impact on the growth of the segment, owing to the rising burden of neurological diseases and disorders around the world which may result in nerve damage, leading to the increasing volume of surgical procedures creates the need of nerve monitoring system, thus boosting the growth in the segment over the forecast period.

There is a growing burden of neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases, Huntington's disease, and motor neuron diseases, among others, in the older population across the world. Thus, this leads to progressive neural dysfunction and toxicities, increasing the demand for effective nerve modulation device, thereby driving growth in the studied market. Thus, with the increasing geriatric population, the burden of neurological diseases may increase and boost the segment's growth during the forecast period. For instance, according to the 2022 Alzheimer's Association report, an estimated 6.5 million Americans aged 65 and older will live with Alzheimer's dementia in 2022. Due to the increasing burden of Alzheimer's Disease, brain surgeries are expected to increase, creating the need for a nerve monitoring system over time.

Additionally, product approvals in the studied market will expand the product offerings and introduce technologically advanced products, contributing to the market growth. For instance, in January 2021, iMediSync launched EEG digital biomarker for early detection of Alzheimer's dementia on their AI cloud platform, iSyncBrain. With AI analytics and brain mapping techniques, the company also serves personalized NIR-LED neuromodulation using their upcoming novel headset, iSyncWave, to enhance neuronal activity.

Thus, due to the abovementioned factors, the studied segment is expected to contribute to the significant growth of the market.

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North America is Expected to Hold a Significant Share in the Market and Expected to do Same in the Forecast Period

The primary driving factors for the growth of the North American nerve monitoring system market are clinical benefits associated with nerve monitoring procedures and the rising use of nerve monitoring in trauma cases. In addition, rising product launches, a rise in surgical procedures, increasing research and development activities, and other strategic initiatives such as mergers and acquisitions and partnerships are also expected to drive the market growth.

The United States within North America is expected to hold a significant share of the studied market during the study period. For instance, according to the Centers for Disease Control and Prevention (CDC) 's Article titled 'Heart Disease Facts,' updated in September 2020, Heart disease is the leading cause of death in the United States. The same source also reports that about 805,000 Americans have a heart attack every year. Due to the high burden of cardiac disease, many cardiology surgical procedures are performed, which may result in nerve damage. Therefore, the demand for nerve monitoring systems is expected to boost the market growth.

Additionally, product development and associated technological innovation will offer more advantages and overcome the existing challenges, leading to lucrative market growth. For instance, in May 2021, Neurosign gained United States Food and Drug Administration clearance for the V4 4-channel and 8-channel nerve monitoring system, which is being used on patients for nerve identification and preservation in the United States for cranial nerves, skull base surgeries, and spinal nerve roots.

Moreover, rising research and development activities in the studied market will help evaluate the efficacies of existing treatment and boost the pipeline of drugs, thus driving the market. For instance, in a study titled "An Inkjet-Printed Flexible Electrocorticography (ECoG) Microelectrode Array on a Thin Parylene-C Film," published in February 2022, scientists developed a thin Parylene-based flexible 22-channel ECoG microelectrode array and demonstrated its performances in vitro and in vivo. They reported positive results from their study, indicating that Parylene-based flexible microelectrode patterns and the novel fabrication techniques described have successful applications in neuroscience and brain-machine interfaces. Thus, positive results from these studies will boost the country's adoption of the nerve monitoring systems, thus driving the market growth.

Therefore, due to the abovementioned factors, the studied market is expected to lead to lucrative growth of the market in North America.

## Nerve Monitoring System Industry Overview

The studied market is moderately competitive. The strategic initiatives such as mergers and acquisitions and partnerships adopted by key market players will boost the market growth. The market's major players are Medtronic, NuVasive Inc., Natus Medical, Nihon Koden, Checkpoint Surgical Inc., and others.

Additional Benefits:

- <ul> <li> The market estimate (ME) sheet in Excel format </li>
- <li> 3 months of analyst support </li> </ul>

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