

Neurostimulation Devices Market Report by
Stimulation Type (Internal Stimulation, External
Stimulation), Device Type (SCS (Spinal Cord
Stimulation) Devices, DBS (Deep Brain Stimulation)
Devices, SNS (Sacral Nerve Stimulation) Devices, VNS
(Vagus Nerve Stimulation) Devices, GES (Gastric
Electrical Stimulation) Devices, Transcutaneous
Electrical Nerve Stimulation Devices, Transcranial
Magnetic Stimulation Devices, and Others),
Application (Pain Management, Epilepsy, Essential
Tremors, Urinary and Fecal Incontinence, Depression,
Dystonia, Parkinson's Disease, and Others), End-User
(Rehabilitation Centers, Hospitals, Medical Clinics,
and Others), and Region 2024-2032

https://marketpublishers.com/r/N70FA19773A6EN.html

Date: July 2024

Pages: 143

Price: US\$ 3,899.00 (Single User License)

ID: N70FA19773A6EN

### **Abstracts**

The global neurostimulation devices market size reached US\$ 8.7 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 20.6 Billion by 2032, exhibiting a growth rate (CAGR) of 9.7% during 2024-2032. The growing aging population coupled with the rising healthcare expenditure, development of non-invasive or minimally invasive neurostimulation technologies, and improved reimbursement policies by government and private health insurers are some of the major factors propelling the market.



Neurostimulation devices are advanced medical technologies designed to modulate and influence neural activity within the human body. These devices work by delivering electrical or magnetic impulses to specific regions of the nervous system, aiming to alleviate various neurological conditions and chronic disorders. They offer a promising non-invasive or minimally invasive therapeutic approach, enhancing the quality of life for patients and potentially opening up new avenues for treating various neurological disorders. The two primary types of neurostimulation devices are deep brain stimulation and spinal cord stimulation. DBS involves implanting electrodes into targeted brain areas to regulate abnormal neural signals and treat conditions such as Parkinson's disease, essential tremor, and dystonia.

The growing aging population is driving the global market. As the elderly population grows, the demand for neurostimulation devices to manage these conditions is likely to rise. Moreover, the development of non-invasive or minimally invasive neurostimulation technologies has expanded the potential patient pool, as these options often offer reduced risks and quicker recovery times compared to traditional surgical procedures. Besides, improved reimbursement policies by government and private health insurers in some regions have made neurostimulation treatments more accessible to patients, encouraging market growth. Also, ongoing research and clinical trials have provided additional evidence for the safety and efficacy of neurostimulation devices. Positive results from these studies have increased confidence in the technology among medical professionals and patients. Furthermore, the rising healthcare expenditure is supporting the growth of market solutions as neurostimulation devices offer a cost-effective approach to managing chronic conditions, which has driven their adoption.

Neurostimulation Devices Market Trends/Drivers: Increasing Prevalence of Neurological Disorders

Neurological conditions such as Parkinson's disease, epilepsy, chronic pain, and depression affect millions of people worldwide, leading to significant healthcare burdens. Neurostimulation devices offer a promising solution for patients who are refractory to conventional treatments or experience severe side effects. Deep brain stimulation (DBS) has demonstrated remarkable efficacy in managing movement disorders, such as Parkinson's disease, thereby augmenting the demand for these devices. Additionally, the escalating incidence of chronic pain, particularly due to aging populations and sedentary lifestyles, fuels the need for spinal cord stimulation (SCS) devices to provide pain relief without relying heavily on medications. As governments and healthcare organizations prioritize improved patient outcomes and seek innovative solutions, the demand for neurostimulation devices is expected to grow steadily.



### Continual Advancements in Neurostimulation Technologies

Continuous research and development efforts have led to the creation of more sophisticated and targeted neurostimulation devices. Innovations include smaller and more precise electrodes, improved battery life, and the integration of closed-loop systems that can automatically adjust stimulation parameters based on real-time patient needs. These advancements translate to enhanced treatment outcomes, reduced side effects, and increased patient comfort. Moreover, the development of minimally invasive procedures for implanting neurostimulation devices has expanded their applicability to a broader patient population, making the treatments more accessible and appealing to both patients and healthcare providers. As technology continues to evolve, neurostimulation devices will likely become even more efficient and adaptable, further impelling their adoption and market penetration.

# Growing Awareness and Acceptance of Neuromodulation Therapies

As more clinical evidence supports the effectiveness of neurostimulation devices in treating various neurological disorders, medical practitioners increasingly recommend these therapies to their patients. Additionally, patient advocacy groups and awareness campaigns have played a crucial role in educating individuals about the potential benefits of neurostimulation, leading to greater patient acceptance of these treatments. The success stories of patients who have experienced significant improvements in their quality of life through neurostimulation devices have further contributed to the positive perception of these therapies. As trust in neuromodulation grows, the demand for these devices is expected to increase, fuelling the market expansion. Furthermore, collaborations between healthcare organizations, researchers, and device manufacturers to spread awareness and ensure appropriate usage will contribute to the sustained growth of the neurostimulation devices market.

### Neurostimulation Devices Industry Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global neurostimulation devices market report, along with forecasts at the global, regional and country levels from 2024-2032. Our report has categorized the market based on stimulation type, device type, application, and end-user.

### Breakup by Stimulation Type:

### Internal Stimulation



#### **External Stimulation**

The report has provided a detailed breakup and analysis of the market based on the stimulation type. This includes internal stimulation and external stimulation.

Internal stimulation devices form a significant segment within the neurostimulation market, characterized by their implantable nature. These devices are surgically placed within the body to deliver targeted electrical or magnetic stimulation directly to specific neural structures. The demand for internal stimulation devices is driven by their efficacy in managing complex neurological disorders that do not respond adequately to medications or other treatments. The ability to precisely target neural circuits while providing reversible and adjustable stimulation parameters enhances treatment outcomes, leading to improved patient quality of life.

On the other hand, external stimulation devices represent another substantial segment in the neurostimulation market, characterized by their non-invasive or minimally invasive nature. These devices are applied externally to the body's surface, delivering stimulation without the need for surgical implantation.

# Breakup by Device Type:

Others

SCS (Spinal Cord Stimulation) Devices
DBS (Deep Brain Stimulation) Devices
SNS (Sacral Nerve Stimulation) Devices
VNS (Vagus Nerve Stimulation) Devices
GES (Gastric Electrical Stimulation) Devices
Transcutaneous Electrical Nerve Stimulation Devices
Transcranial Magnetic Stimulation Devices

SCS (spinal cord stimulation) dominates the market

The report has provided a detailed breakup and analysis of the market based on the device type. This includes spinal cord stimulation (SCS) devices, deep brain stimulation (DBS) devices, sacral nerve stimulation (SNS) devices, vagus nerve stimulation (VNS) devices, gastric electrical stimulation (GES) devices, transcutaneous electrical nerve stimulation devices, transcranial magnetic stimulation devices, and other. According to the report, SCS (spinal cord stimulation) devices represented the largest segment.



SCS involves the implantation of electrodes along the spinal cord, where electrical impulses are delivered to modulate pain signals and provide relief for chronic pain conditions. The minimally invasive nature of the procedure offers numerous benefits, including shorter recovery times and reduced risks compared to invasive surgeries. Additionally, the customizable nature of SCS allows for individualized programming to target specific pain areas, tailoring treatment to meet each patient's unique needs. Moreover, continual advancements in SCS technology have led to more sophisticated devices with improved battery life, smaller implants, and enhanced programming capabilities, providing greater patient comfort and long-term sustainability. The focus on patient-centered care and shared decision-making has led to an increased emphasis on personalized pain management plans. Spinal cord stimulation, with its individualized programming capabilities, aligns well with this patient-centric approach, fueling its adoption in pain management strategies.

# Breakup by Application:

Pain Management
Epilepsy
Essential Tremors
Urinary and Fecal Incontinence
Depression
Dystonia
Parkinson's Disease
Others

# Pain management dominates the market

The report has provided a detailed breakup and analysis of the market based on the application. This includes pain management, epilepsy, essential tremors, urinary and fecal incontinence, depression, dystonia, Parkinson's disease, and others. According to the report, pain management represents the largest segment.

Neurostimulation devices designed for pain management offer a promising alternative, particularly spinal cord stimulation (SCS) and peripheral nerve stimulation (PNS). These technologies work by delivering controlled electrical impulses to target nerves, modulating pain signals, and thereby reducing the perception of pain. Pain management through neurostimulation has demonstrated remarkable efficacy in various chronic pain conditions, including neuropathic pain, failed back surgery syndrome (FBSS), and complex regional pain syndrome (CRPS). Additionally, the advancements in



neurostimulation technology have led to more personalized and precise pain management solutions, allowing for tailored treatment strategies based on individual patient needs.

Breakup by End-User:

Rehabilitation Centers Hospitals Medical Clinics Others

Hospitals dominates the market

A detailed breakup and analysis of the market based on the end user has also been provided in the report. This includes rehabilitation centers, hospitals, medical clinics, and others. According to the report, hospitals represented the largest segment.

Hospitals play a central role in the diagnosis, treatment, and management of various neurological and chronic disorders, which often require neurostimulation therapies as part of the treatment plan. Hospitals have access to multidisciplinary teams of medical professionals, including neurologists, neurosurgeons, pain specialists, and anesthesiologists, who collaborate to provide comprehensive care to patients requiring neurostimulation therapies. Additionally, they are equipped with state-of-the-art operating rooms and facilities that meet stringent regulatory standards, ensuring safe and effective implantation procedures. Furthermore, neurostimulation devices often require careful programming and adjustments to optimize treatment outcomes, and hospitals have the resources to support these ongoing patient management needs.

Breakup by Region:

North America

**United States** 

Canada

Europe

Germany

France

**United Kingdom** 

Italy

Spain



Russia

Others

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

North America exhibits a clear dominance, accounting for the largest neurostimulation devices market share.

The report has also provided a comprehensive analysis of all the major regional markets, which includes North America (the United States and Canada), Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and Others), Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and Others), Latin America (Brazil, Mexico, and Others), and the Middle East and Africa. According to the report, North America accounted for the largest market share.

North America has a well-established healthcare infrastructure and is at the forefront of medical research and technological advancements. The presence of leading healthcare facilities, specialized neurology centers, and renowned research institutions fosters innovation and the adoption of cutting-edge neurostimulation technologies. Moreover, the region has a high prevalence of neurological disorders and chronic pain conditions, leading to a substantial demand for neurostimulation devices for effective management and treatment. The region's aging population, coupled with a growing awareness of neurostimulation therapies among patients and healthcare providers, further fuels market growth. Additionally, favorable reimbursement policies and regulatory frameworks in North America support the widespread adoption of neurostimulation devices.

### Competitive Landscape:



Neurostimulation device manufacturers are heavily investing in research and development to enhance their existing products and develop new, innovative technologies. This involves conducting clinical trials, exploring new applications for neurostimulation, and improving the safety and efficacy of their devices. Moreover, companies are introducing new neurostimulation devices or release upgraded versions of existing ones. These launches aim to provide patients and healthcare professionals with state-of-the-art solutions that offer better outcomes and user experiences. Furthermore, companies actively seek to expand their market presence, both geographically and in terms of applications. They may pursue regulatory approvals in different regions, explore new therapeutic areas for neurostimulation, or target specific patient populations with unmet needs. Also, collaboration with other companies, research institutions, and healthcare organizations is common in the neurostimulation devices market.

The report has provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the key players in the market include:

Biocontrol Medical
Boston Scientific Corporation
Cyberonics Inc.
Medtronic Inc.
Neuronetics Inc.
Neuropace Inc.
Neurosigma Inc.
Nevro Corporation

# Recent Developments:

ST. Jude Medical Inc.

Synapse Biomedical Inc.

In April 2023, Synapse Biomedical Inc. received the approval for diaphragm pacing system, NeuRx DPS®. The NeuRx DPS® is a battery-powered device that delivers electrical stimulation via four percutaneous intramuscular electrodes implanted into the diaphragm with minimally invasive laparoscopy. It is intended for use in patients with stable SCI with stimulatable diaphragms, but who lack control of their diaphragms. The device is indicated to allow patients 18 years and older to breathe without the assistance of a mechanical ventilator for at least four continuous hours a day. In March 2023, Nevro Corporation announced the Launch of Revolutionary HFX iQ<sup>™</sup> Spinal Cord Stimulation System to Personalize Treatment of Chronic Pain. It combines



clinical inputs, such as pain relief and pain score, along with quality of life inputs, such as pain medication and activity level changes, to provide an individualized program setting for each patient.

In September 2022, Neuronetics Inc. launched Innovations to NeuroStar® Advanced Therapy's Proprietary TrakStar® Platform. The TrakStar upgrades include a simplified interface to quickly sort and prioritize potential patients with ease. It also streamlines the patient journey by bridging our proprietary PHQ-10 platform with our HIPAA-compliant TrakStar patient data management system making it easier to identify new patients and those needing re-treatment.

# Key Questions Answered in This Report

- 1. What was the size of the global neurostimulation devices market in 2023?
- 2. What is the expected growth rate of the global neurostimulation devices market during 2024-2032?
- 3. What are the key factors driving the global neurostimulation devices market?
- 4. What has been the impact of COVID-19 on the global neurostimulation devices market?
- 5. What is the breakup of the global neurostimulation devices market based on the device type?
- 6. What is the breakup of the global neurostimulation devices market based on the application?
- 7. What is the breakup of the global neurostimulation devices market based on the enduser?
- 8. What are the key regions in the global neurostimulation devices market?
- 9. Who are the key players/companies in the global neurostimulation devices market?



# **Contents**

#### 1 PREFACE

#### 2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

#### **3 EXECUTIVE SUMMARY**

#### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

# **5 GLOBAL NEUROSTIMULATION DEVICES MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY STIMULATION TYPE**

- 6.1 Internal Stimulation
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 External Stimulation
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast



### 7 MARKET BREAKUP BY DEVICE TYPE

- 7.1 SCS (Spinal Cord Stimulation) Devices
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 DBS (Deep Brain Stimulation) Devices
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 SNS (Sacral Nerve Stimulation) Devices
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 VNS (Vagus Nerve Stimulation) Devices
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast
- 7.5 GES (Gastric Electrical Stimulation) Devices
  - 7.5.1 Market Trends
  - 7.5.2 Market Forecast
- 7.6 Transcutaneous Electrical Nerve Stimulation Devices
  - 7.6.1 Market Trends
  - 7.6.2 Market Forecast
- 7.7 Transcranial Magnetic Stimulation Devices
  - 7.7.1 Market Trends
  - 7.7.2 Market Forecast
- 7.8 Others
  - 7.8.1 Market Trends
  - 7.8.2 Market Forecast

#### **8 MARKET BREAKUP BY APPLICATION**

- 8.1 Pain Management
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Epilepsy
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Essential Tremors
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast
- 8.4 Urinary and Fecal Incontinence



- 8.4.1 Market Trends
- 8.4.2 Market Forecast
- 8.5 Depression
  - 8.5.1 Market Trends
  - 8.5.2 Market Forecast
- 8.6 Dystonia
  - 8.6.1 Market Trends
  - 8.6.2 Market Forecast
- 8.7 Parkinson's Disease
  - 8.7.1 Market Trends
  - 8.7.2 Market Forecast
- 8.8 Others
  - 8.8.1 Market Trends
  - 8.8.2 Market Forecast

#### 9 MARKET BREAKUP BY END-USER

- 9.1 Rehabilitation Centers
  - 9.1.1 Market Trends
  - 9.1.2 Market Forecast
- 9.2 Hospitals
  - 9.2.1 Market Trends
  - 9.2.2 Market Forecast
- 9.3 Medical Clinics
  - 9.3.1 Market Trends
  - 9.3.2 Market Forecast
- 9.4 Others
  - 9.4.1 Market Trends
  - 9.4.2 Market Forecast

# 10 MARKET BREAKUP BY REGION

- 10.1 North America
  - 10.1.1 United States
    - 10.1.1.1 Market Trends
    - 10.1.1.2 Market Forecast
  - 10.1.2 Canada
    - 10.1.2.1 Market Trends
    - 10.1.2.2 Market Forecast



- 10.2 Europe
  - 10.2.1 Germany
    - 10.2.1.1 Market Trends
    - 10.2.1.2 Market Forecast
  - 10.2.2 France
    - 10.2.2.1 Market Trends
    - 10.2.2.2 Market Forecast
  - 10.2.3 United Kingdom
    - 10.2.3.1 Market Trends
    - 10.2.3.2 Market Forecast
  - 10.2.4 Italy
    - 10.2.4.1 Market Trends
    - 10.2.4.2 Market Forecast
  - 10.2.5 Spain
    - 10.2.5.1 Market Trends
    - 10.2.5.2 Market Forecast
  - 10.2.6 Russia
    - 10.2.6.1 Market Trends
    - 10.2.6.2 Market Forecast
  - 10.2.7 Others
    - 10.2.7.1 Market Trends
    - 10.2.7.2 Market Forecast
- 10.3 Asia Pacific
  - 10.3.1 China
    - 10.3.1.1 Market Trends
    - 10.3.1.2 Market Forecast
  - 10.3.2 Japan
    - 10.3.2.1 Market Trends
    - 10.3.2.2 Market Forecast
  - 10.3.3 India
    - 10.3.3.1 Market Trends
    - 10.3.3.2 Market Forecast
  - 10.3.4 South Korea
    - 10.3.4.1 Market Trends
    - 10.3.4.2 Market Forecast
  - 10.3.5 Australia
    - 10.3.5.1 Market Trends
    - 10.3.5.2 Market Forecast
  - 10.3.6 Indonesia



- 10.3.6.1 Market Trends
- 10.3.6.2 Market Forecast
- 10.3.7 Others
  - 10.3.7.1 Market Trends
  - 10.3.7.2 Market Forecast
- 10.4 Latin America
  - 10.4.1 Brazil
    - 10.4.1.1 Market Trends
    - 10.4.1.2 Market Forecast
  - 10.4.2 Mexico
    - 10.4.2.1 Market Trends
    - 10.4.2.2 Market Forecast
  - 10.4.3 Others
    - 10.4.3.1 Market Trends
    - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
  - 10.5.1 Market Trends
  - 10.5.2 Market Breakup by Country
  - 10.5.3 Market Forecast

# 11 SWOT ANALYSIS

- 11.1 Overview
- 11.2 Strengths
- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats

# **12 VALUE CHAIN ANALYSIS**

- 12.1 Overview
- 12.2 Inbound Logistics
- 12.3 Operations
- 12.4 Outbound Logistics
- 12.5 Marketing and Sales
- 12.6 Post Sales Services

### 13 PORTERS FIVE FORCES ANALYSIS



- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

#### 14 PRICE INDICATORS

#### 15 COMPETITIVE LANDSCAPE

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
  - 15.3.1 Biocontrol Medical
    - 15.3.1.1 Company Overview
    - 15.3.1.2 Product Portfolio
  - 15.3.2 Boston Scientific Corporation
    - 15.3.2.1 Company Overview
    - 15.3.2.2 Product Portfolio
    - 15.3.2.3 Financials
    - 15.3.2.4 SWOT Analysis
  - 15.3.3 Cyberonics Inc.
    - 15.3.3.1 Company Overview
    - 15.3.3.2 Product Portfolio
  - 15.3.4 Medtronic Inc.
    - 15.3.4.1 Company Overview
    - 15.3.4.2 Product Portfolio
  - 15.3.5 Neuronetics Inc.
    - 15.3.5.1 Company Overview
    - 15.3.5.2 Product Portfolio
    - 15.3.5.3 Financials
  - 15.3.6 Neuropace Inc.
    - 15.3.6.1 Company Overview
    - 15.3.6.2 Product Portfolio
  - 15.3.7 Neurosigma Inc.
    - 15.3.7.1 Company Overview
    - 15.3.7.2 Product Portfolio
  - 15.3.8 Nevro Corporation



- 15.3.8.1 Company Overview
- 15.3.8.2 Product Portfolio
- 15.3.8.3 Financials
- 15.3.9 ST. Jude Medical Inc.
  - 15.3.9.1 Company Overview
  - 15.3.9.2 Product Portfolio
- 15.3.10 Synapse Biomedical Inc.
  - 15.3.10.1 Company Overview
  - 15.3.10.2 Product Portfolio



### I would like to order

Product name: Neurostimulation Devices Market Report by Stimulation Type (Internal Stimulation,

External Stimulation), Device Type (SCS (Spinal Cord Stimulation) Devices, DBS (Deep Brain Stimulation) Devices, SNS (Sacral Nerve Stimulation) Devices, VNS (Vagus Nerve Stimulation) Devices, GES (Gastric Electrical Stimulation) Devices, Transcutaneous Electrical Nerve Stimulation Devices, Transcranial Magnetic Stimulation Devices, and Others), Application (Pain Management, Epilepsy, Essential Tremors, Urinary and Fecal Incontinence, Depression, Dystonia, Parkinson's Disease, and Others), End-User (Rehabilitation Centers, Hospitals, Medical Clinics, and Others), and Region 2024-2032

Product link: https://marketpublishers.com/r/N70FA19773A6EN.html

Price: US\$ 3,899.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/N70FA19773A6EN.html">https://marketpublishers.com/r/N70FA19773A6EN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature



Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to  $+44\ 20\ 7900\ 3970$