

# **Neurostimulation: Technologies and Global Markets**

https://marketpublishers.com/r/NA22A6D4BE3EN.html Date: September 2023 Pages: 160 Price: US\$ 5,500.00 (Single User License) ID: NA22A6D4BE3EN

# **Abstracts**

Report Scope:

This report provides a comprehensive study of the global market for neurostimulation technologies and devices. It provides a detailed description of the different types of neurostimulation technologies and devices (invasive and noninvasive) and their current and historical market revenues.

Neurostimulation technologies and devices include spinal cord stimulation, deep brain stimulation, sacral nerve stimulation, vagus nerve stimulation, hypoglossal nerve stimulation, transcutaneous electrical nerve stimulation, transcranial magnetic stimulation and others.

This report also covers in detail the therapeutic applications of neurostimulation technologies and devices, including chronic pain, Parkinson's disease, epilepsy, urinary and fecal incontinence, obstructive sleep apnea, essential tremor, obsessive compulsive disorder, major depressive disorder/clinical depression and others. An indepth analysis of the global market for neurostimulation technologies and devices includes historical data and market projections by device type, therapeutic application and region.

Report Includes:

51 tables

An overview of the global markets and technologies for neurostimulation

Estimation of the market size and analyses of market trends, with data from 2020 to 2022, estimates for 2023 and projection of CAGR through 2028



Description of Dorsal Root Ganglion (DRG) neurostimulator system and discussion on approved indications of stimulation therapy for various diseases

Detailed description of various types of stimulation such as spinal cord stimulation, transcutaneous electrical nerve stimulation, deep brain stimulation, sacral nerve stimulation, Vagus nerve stimulation, hypoglossal nerve stimulation, and transcranial magnetic stimulation; and discussion on their mode of action and advantages

Information on recent therapy improvements and new indications for use, and discussion on alternatives to traditional stimulation therapies

Coverage of ongoing scientific discoveries and technological advances in neurostimulation technologies and insights into marketed and pipeline (R&D) products, product recalls and reimbursement policies

Market share analysis of neurostimulation devices by application, type and region, and evaluation of market size and forecast, and detailed analysis of drivers, challenges and opportunities affecting market growth

Market share analysis of the key companies of the industry and coverage of events like mergers & acquisitions, joint ventures, collaborations or partnerships, and other key market strategies

Comprehensive company profiles of major players of the industry, including Axonics Inc., Boston Scientific Corp., Medtronic PLC, Synapse Biomedical Inc. and Xavant Technology



# Contents

#### **CHAPTER 1 INTRODUCTION**

Study Goals and Objectives Reasons for Doing the Study What's New in This Update? Scope of Report Methodology and Information Sources Regional Breakdown

### **CHAPTER 2 SUMMARY AND HIGHLIGHTS**

Market Outlook

## CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND

Overview of Neurostimulation Types of Neurostimulation Technologies Spinal Cord Stimulation **Deep Brain Stimulation** Sacral Nerve Stimulation (SNS) Vagus Nerve Stimulation Hypoglossal Nerve Stimulation **Transcutaneous Electrical Nerve Stimulation** Transcranial Magnetic Stimulation (TMS) Other Neurostimulation Technologies Therapeutic Applications for Neurostimulation Chronic Pain Management **Neurological Disorders** Urinary and Fecal Incontinence **Obstructive Sleep Apnea Chronic Migraine and Headache** Cardiovascular Diseases **Gastrointestinal Disorders** Obesity **Psychiatric Disorders Technological Developments MRI** Compatibility



Rechargeable and Non-rechargeable Devices

#### **CHAPTER 4 MARKET DYNAMICS**

Market Trends Drivers Market Restraints

#### CHAPTER 5 MARKET BREAKDOWN BY TECHNOLOGY/DEVICE TYPE

Global Market for Neurostimulation Devices by Type Spinal Cord Stimulation (SCS) Devices Transcutaneous Electrical Nerve Stimulation (TENS) Devices Deep Brain Stimulation (DBS) Devices Sacral Nerve Stimulation (SNS) Devices Vagus Nerve Stimulation (VNS) Devices Hypoglossal Nerve Stimulation (HGNS) Devices Market Size and Forecast Transcranial Magnetic Stimulation (TMS) Devices Other Types of Neurostimulation Devices

#### CHAPTER 6 MARKET BREAKDOWN BY THERAPEUTIC APPLICATION

Global Market for Neurostimulation Devices by Therapeutic Application Chronic Pain Urinary and Fecal Incontinence Parkinson's Disease Epilepsy Obstructive Sleep Apnea (OSA) Essential Tremor Major Depressive Disorder (MDD)/Clinical Depression Obsessive Compulsive Disorder (OCD) Other Therapeutic Applications

#### CHAPTER 7 MARKET BREAKDOWN BY REGION

Global Market for Neurostimulation Devices by Region North America Europe



Asia-Pacific Rest of the World

## **CHAPTER 8 REGULATORY STRUCTURE**

Regulatory Framework U.S. European Union Japan

## CHAPTER 9 KEY PRODUCTS AND TECHNOLOGIES ON THE MARKET

Recent Therapeutic Improvements and New Indications Spinal Cord Stimulation Deep Brain Stimulation Sacral Nerve Stimulation (SNS) Axonics Medtronic Vagus Nerve Stimulation Hypoglossal Nerve Stimulation Transcutaneous Electrical Nerve Stimulation Transcranial Magnetic Stimulation Other Types of Stimulation New Indications and Neurostimulation Therapies

### **CHAPTER 10 EMERGING TECHNOLOGIES AND DEVELOPMENTS**

Emerging Technologies and Developments Closed-Loop Neurostimulation Non-Invasive Brain Stimulation Techniques High-Frequency Stimulation Magnetic Resonance-guided Focused Ultrasound Optogenetics Bioelectronic Medicine Wireless and Remote-Controlled Devices

## CHAPTER 11 RECENT M&A

M&A in the Neurostimulation Technologies Industry



#### CHAPTER 12 COMPETITIVE LANDSCAPE

Company Market Shares by Product Segment Spinal Cord Stimulation Devices Deep Brain Stimulation Devices Sacral Nerve Stimulation Devices Vagus Nerve Stimulation Devices Hypoglossal Nerve Stimulation Devices Transcranial Magnetic Stimulation Devices Transcutaneous Electrical Nerve Stimulation Devices Recent Industry Activities

#### **CHAPTER 13 COMPANY PROFILES**

ABBOTT LABORATORIES ALEVA NEUROTHERAPEUTICS SA AVERY BIOMEDICAL DEVICES INC. AXONICS INC. **BIOINDUCTION LTD. BIOVENTUS LLC BIOWAVE CORP.** BOSTON SCIENTIFIC CORP. BRAINSWAY LTD. COCHLEAR AMERICAS CVRX INC. ELECTROCORE INC. INSPIRE MEDICAL SYSTEMS INC. INTEGER HOLDINGS CORP. LABORIE INC. LIVANOVA PLC MAG & MORE GMBH MAGSTIM INC. MEDTRONIC PLC NALU MEDICAL INC. NEUROMED CONSULTING INC. NEUROMETRIX INC. NEURONETICS INC. NEUROPACE INC.



NEUROSIGMA INC. NEUROVALENS LTD. NEVRO CORP. NEXSTIM PLC NYXOAH SA SOTERIX MEDICAL INC. SYNAPSE BIOMEDICAL INC. XAVANT TECHNOLOGY (PTY) LTD. ZOLL MEDICAL CORP.

### **CHAPTER 14 APPENDIX: ACRONYMS**



# **List Of Tables**

### LIST OF TABLES

Summary Table : Global Market for Neurostimulation Devices, by Type, Through 2028 Table 1 : Prevalence of Chronic Pain and High-Impact Chronic Pain Among U.S. Adults, by Sociodemographic Characteristics, 2016 Table 2 : Type of Chronic Pain, U.S Table 3 : Prevalence of Adult Overweight and Obese Population, by Country, 2014-2022 Table 4 : Global Market for Neurostimulation Devices, by Type, Through 2028 Table 5 : Global Market for SCS Devices, by Region, Through 2028 Table 6 : Global Market for TENS Devices, by Region, Through 2028 Table 7 : Global Market for DBS Devices, by Region, Through 2028 Table 8 : Global Market for SNS Devices, by Region, Through 2028 Table 9 : Global Market for VNS Devices, by Region, Through 2028 Table 10 : Global Market for HGNS Devices, by Region, Through 2028 Table 11 : Global Market for TMS Devices, by Region, Through 2028 Table 12 : Global Market for Other Types of Neurostimulation Devices, by Region, Through 2028 Table 13 : Global Market for Neurostimulation Devices, by Therapeutic Application, Through 2028 Table 14 : Global Market for Neurostimulation Devices, by Region, Through 2028 Table 15 : Regulatory Approval: U.S. vs. Europe Table 16 : Implantable Neurostimulation Devices Approved, January 2018-May 2023 Table 17 : Currently Available Spinal Cord Stimulation Systems Table 18 : Currently Available Deep Brain Stimulation Systems Table 19 : Currently Available Sacral Nerve Stimulation Systems Table 20 : Currently Available Vagus Nerve Stimulation Systems Table 21 : FDA-Approved TENS Systems for Pain Relief Treatment, 2015-2021 Table 22 : FDA-Approved TENS Systems for Treatment of Migraine Pain Relief, 2015-2021 Table 23 : Currently Available Phrenic Nerve Stimulation Systems for Respiratory Insufficiency Table 24 : Currently Available HGNS Systems for Respiratory Insufficiency Table 25 : Currently Available Peripheral Nerve Stimulation Systems Table 26 : Currently Available Transcranial Magnetic Stimulating Systems Table 27 : Currently Available Gastric Electrical Stimulation Systems Table 28 : Neurostimulation Stimulation Product Pipeline



- Table 29 : Active Clinical Trials on Spinal Cord Stimulation Technology
- Table 30 : Active Clinical Trials on DBS Technology
- Table 31 : Active Clinical Trials on VNS Technology
- Table 32 : Active Clinical Trials on Sacral Nerve Stimulation Technology
- Table 33 : Active Clinical Trials on Peripheral Nerve Stimulation Technology
- Table 34 : Active Clinical Trials on Hypoglossal Nerve Stimulation Technology
- Table 35 : Shares of Companies in the Global Market for SCS Devices, 2022
- Table 36 : Shares of Companies in the Market for DBS Devices, 2022
- Table 37 : Aleva Neurotherapeutics SA: News
- Table 38 : Axonics Inc.: Annual Revenue, 2022
- Table 39 : Axonics Inc.: News
- Table 40 : Axonics Inc.: Product Portfolio
- Table 41 : Bioventus LLC: Annual Revenue, 2022
- Table 42 : Bioventus LLC: News
- Table 43 : Bioventus LLC: Product Portfolio
- Table 44 : Boston Scientific Corp.: Annual Revenue, 2022
- Table 45 : Boston Scientific Corp.: News
- Table 46 : Boston Scientific Corp.: Product Portfolio
- Table 47 : Medtronic PLC: Annual Revenue, 2022
- Table 48 : Synapse Biomedical Inc.: News
- Table 49 : Xavant Technology: Product Portfolio
- Table 50 : Acronyms Used in This Report



# **List Of Figures**

#### LIST OF FIGURES

Summary Figure : Global Market for Neurostimulation Devices, by Type, 2020-2028 Figure 1 : Global Market Shares of Neurostimulation Devices, by Type, 2022 Figure 2 : Global Market for SCS Devices, by Region, 2020-2028 Figure 3 : Global Market for TENS Devices, by Region, 2020-2028 Figure 4 : Global Market for DBS Devices, by Region, 2020-2028 Figure 5 : Global Market for SNS Devices, by Region, 2020-2028 Figure 6 : Global Market for VNS Devices, by Region, 2020-2028 Figure 7 : Global Market for HGNS Devices, by Region, 2020-2028 Figure 8 : Global Market for TMS Devices, by Region, 2020-2028 Figure 9 : Global Market for Other Types of Neurostimulation Devices, by Region, 2020-2028 Figure 10 : Global Market Shares of Neurostimulation Devices, by Therapeutic Application, 2022 Figure 11 : Global Market Shares of Neurostimulation Devices, by Region, 2022 Figure 12 : Shares of Leading Companies in the Global Market for SCS Devices, 2022 Figure 13 : Shares of Companies in the Market for DBS Devices, 2022 Figure 14 : Abbott: Diagnostics Revenue, 2020-2022 Figure 15 : Abbott: Diagnostics Market Share, by Business Segment, 2022 Figure 16 : Abbott: Revenue Shares, by Business Unit, 2021 Figure 17 : Abbott: Revenue Shares, by Market, 2021 Figure 18 : Axonics Inc.: Annual Revenue, 2021 and 2022 Figure 19 : Axonics Inc.: Revenue Shares, by Business Unit, 2022 Figure 20 : Axonics Inc.: Revenue Shares, by Country/Region, 2022 Figure 21 : Bioventus LLC: Annual Revenue, 2021 and 2022 Figure 22 : Bioventus LLC: Revenue Shares, by Business Unit, 2022 Figure 23 : Bioventus LLC: Revenue Shares, by Country/Region, 2022 Figure 24 : Boston Scientific Corp.: Annual Revenue, 2021 and 2022 Figure 25 : Boston Scientific Corp.: Revenue Shares, by Business Unit, 2022 Figure 26 : Boston Scientific Corp.: Revenue Shares, by Country/Region, 2022 Figure 27 : Medtronic PLC: Annual Revenue, 2021 and 2022 Figure 28 : Medtronic PLC: Revenue Shares, by Business Unit, 2022 Figure 29 : Medtronic PLC: Revenue Shares, by Country/Region, FY2023



### I would like to order

Product name: Neurostimulation: Technologies and Global Markets Product link: <u>https://marketpublishers.com/r/NA22A6D4BE3EN.html</u> Price: US\$ 5,500.00 (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 <u>https://marketpublishers.com/r/NA22A6D4BE3EN.html</u>

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 <u>https://marketpublishers.com/docs/terms.html</u>

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