Vagal Nerve Stimulation (VNS) Market Information: By Product (Implantable VNS Devices and External VNS Devices), By Application (Depression, Epilepsy, Migraine, And Others), By End Users (Hospitals, Ambulatory Surgical Centers, And Others) - Global Forecast Till 2023

Market Scenario

Vagal nerve stimulation or vagus nerve stimulation (VNS) is a treatment method that involves delivering electrical impulses to the vagus nerve. Vegas nerve acts as a translator between gut and brain. Gut uses the vagus nerve like a walkie-talkie and translates signals via electric impulses, which called action potentials. VNS treatment is used for certain types of intractable epilepsy, depression, and others. In most common cases, overstimulation of the vagus nerve causes fainting. Vagus nerve stimulation is a procedure, which involves implantation of a device that stimulates the vagus nerve with electrical impulses. This device is normally implanted under the skin below the patient’s clavicle. Lead wires from the generator are excavated up to the patient’s neck and wrapped around the left vagus nerve at the carotid sheath, where it delivers electrical impulses to the nerve. After successfully implanted, the generator sends electric impulses to the vagus nerve at a regular intervals.

Vagal nerve stimulation (VNS), may offer hope for patients who don't improve with conventional depression treatment. A small battery-powered device like a pacemaker is inserted under the skin in the neck, from where it emits pulses of weak electrical current to stimulate part of the vagus nerve.

Increasing prevalence of neurological disorders, increasing investment of biotechnology and pharmaceutical industries in R&D, and rising need for the better treatment methods drives the growth of the market. Moreover, favorable reimbursement policies, increased application and significant investments in development of new technologies for the treatment of epilepsy, and other cardiac indications will fuel the market growth during the forecast period.

According to the WHO estimates, neurological disorders are responsible for 4.5%-11% of all illnesses including low or high income economies. This is far higher as compared to the number of respiratory ailments, gastrointestinal disorders, or cancers, and the burden is expected to increase further over the coming years.

However, higher cost of these treatment procedure may hamper the market growth during the corresponding period. As per Epilepsy Foundation, VNS therapy currently costs approximately USD 30,000, which includes the implant and surgical procedure and it is not affordable to the patients living in low income economies.

The global vagal nerve stimulation or vagus nerve stimulation market is expected to grow at a CAGR of ~ 8.68 % during the forecast period 2017-2023.

Figure: Global Vagal Nerve Stimulation Market, By Region

Market Share, 2016 (%)
Key Players

Some of key the players in the market are LivaNova PLC (UK), EnteroMedics Inc. (US), ElectroCore Medical LLC (US), Boston Scientific Corporation (US), Cyberonics, Inc. (US), NeuroMetrix, Inc.(US), ImThera Medical (US), and Inspire Medical Systems, Inc.(US)

Segmentations

The global vagal nerve stimulation market has been segmented on the basis of products, application, and end user.

On the basis of products, the market is segmented into implantable VNS devices and external VNS devices.

On the basis of application, the market is segmented into depression, epilepsy, migraine, and others.

On the basis of end user, the market is segmented into hospitals, ambulatory surgical centers, and others.

Research Methodology
Regional Analysis

The Americas dominates the global vagal nerve stimulation market owing to well-developed technology, increasing prevalence neurological disorders, high healthcare spending, and increasing government support for research & development. Furthermore, increasing R&D activities and the presence of major companies have fuelled the growth of the market in this region.

Europe holds the second position in the global vagal nerve stimulation market. It is expected that the government support for research & development and availability of funds for research will drive the market in Europe region over the review period.

Asia Pacific is the fastest growing vagal nerve stimulation market owing to the presence of rapidly developing healthcare technology, huge patient population, and high healthcare expenditure. Moreover, increasing new opportunities in countries like China, India, Japan, and South Korea will make this as emerging and the fastest growing market across the globe. Furthermore, increasing demand for quality devices in the healthcare will lead to the use of advanced equipment, which, in turn, will increase the growth of the VNS devices in the region.

On the other hand, the Middle East & Africa holds the least share of the market due to limited availability of medical facilities, less availability of funds, and poor political conditions in Africa.

Intended Audience

- Pharmaceutical Companies
- Medical Devices Companies
- Research and Development (R&D) Companies
- Government Research Institute
- Academic Institutes and Universities

Contents:

BRIEF TOC

Chapter 1. Report Prologue

Chapter 2. Market Introduction

2.1 Definition
2.2 Scope of the Study
2.2.1 Research Objective
2.2.2 Assumptions
2.2.3 Limitations

Chapter 3. Research Methodology

3.1 Introduction
3.2 Primary Research
3.3 Secondary research
3.4 Market Size Estimation

Chapter 4. Market Dynamics

4.1 Drivers
4.2 Restraints
4.3 Opportunities
4.4 Challenges
4.5 Macroeconomic Indicators
4.6 Technology Trends & Assessment

Chapter 5. Market Factor Analysis

5.1 Porters Five Forces Analysis
5.1.1 Bargaining Power of Suppliers
5.1.2 Bargaining Power of Buyers
5.1.3 Threat of New Entrants
5.1.4 Threat of Substitutes
5.1.5 Intensity of Rivalry
5.2 Value Chain Analysis
5.3 Investment Feasibility Analysis
5.4 Pricing Analysis

Chapter 6. Global Vagal Nerve Stimulation Market, by Products
6.1 Introduction
6.2 Implantable VNS Devices
6.2.1 Market Estimates & Forecast, 2017 – 2023
6.3 External VNS Devices
6.3.1 Market Estimates & Forecast, 2017 – 2023

Chapter 7. Global Vagal Nerve Stimulation Market, by Application
7.1 Introduction
7.2 Depression
7.2.1 Market Estimates & Forecast, 2017 – 2023
7.3 Epilepsy
7.3.1 Market Estimates & Forecast, 2017 – 2023
7.4 Migraine
7.4.1 Market Estimates & Forecast, 2017 – 2023

Chapter 8. Global Vagal Nerve Stimulation Market, by End User
8.1 Introduction
8.2 Hospitals
8.2.1 Market Estimates & Forecast, 2017 – 2023
8.3 Ambulatory Surgical Centers
8.2.2 Market Estimates & Forecast, 2017 – 2023
8.3 Others

Chapter 9. Global Vagal Nerve Stimulation Market, by Region
9.1 Introduction
9.2 America
9.2.1 North America
9.2.1.1 US
9.2.1.1 Canada
9.2.2 South America
9.3 Europe
9.3.1 Western Europe
9.3.1.1 Germany
9.3.1.2 France
9.3.1.3 Italy
9.3.1.4 Spain
9.3.1.5 UK
9.3.1.6 Rest of Western Europe
9.3.2 Eastern Europe
9.4 Asia Pacific
9.4.1 Japan
9.4.2 China
9.4.3 India
9.4.4 Australia
9.4.5 Republic of Korea
9.4.6 Rest of Asia Pacific
9.5 The Middle East & Africa
9.5.1 United Arab Emirates
9.5.2 Saudi Arabia
9.5.3 Oman
9.5.4 Kuwait
9.5.5 Qatar
9.5.6 Rest of the Middle East & Africa

Chapter 10 Company Landscape
10.1 Introduction
10.2 Market Share Analysis
10.3 Key Development & Strategies
10.3.1 Key Developments

Chapter 11 Company Profiles
11.1 Boston Scientific Corporation
11.1.1 Company Overview
11.1.2 Product Overview
11.1.3 Financials
11.1.4 SWOT Analysis
11.2 ElectroCore Medical LLC
11.2.1 Company Overview
11.2.2 Product Overview
11.2.3 Financial Overview
11.2.4 Key Developments
11.2.5 SWOT Analysis
11.3 EnteroMedics Inc
11.3.1 Company Overview
11.3.2 Product Overview
11.3.3 Financial Overview
11.3.4 Key Development
11.3.5 SWOT Analysis
11.4 LivaNova PLC
11.4.1 Company Overview
11.4.2 Product/Business Segment Overview
11.4.3 Financial Overview
11.4.4 Key Development
11.4.5 SWOT Analysis
11.5 Cyberonics, Inc.
11.5.1 Company Overview
11.5.2 Product Overview
11.5.3 Financial overview
11.5.4 Key Developments
11.6 NeuroMetrix, Inc.
11.6.1 Company Overview
11.6.2 Product Overview
11.6.3 Financial Overview
11.6.4 Key Developments
11.7 Inspire Medical Systems, Inc.
FIGURES
Figure 1 Research Process
Figure 2 Segmentation for Global Vagal Nerve Stimulation Market
Figure 3 Segmentation Market Dynamics for Global Vagal Nerve Stimulation Market
Figure 4 Global Vagal Nerve Stimulation market Share, by Product 2016
Figure 5 Global Vagal Nerve Stimulation market Share, by Application 2016
Figure 6 Global Vagal Nerve Stimulation Market Share, by End Users, 2016
Figure 7 Global Vagal Nerve Stimulation Market Share, by Region, 2016
Figure 8 North America Vagal Nerve Stimulation Market Share, by Country, 2016
Figure 9 Europe Vagal Nerve Stimulation Market Share, by Country, 2016
Figure 10 Asia Pacific Vagal Nerve Stimulation Market Share, by Country, 2016
Figure 11 Middle East & Africa Vagal Nerve Stimulation Market Share, by Country, 2016
Figure 12 Global Vagal Nerve Stimulation Market: Company Share Analysis, 2016 (%)
Figure 13 LivaNova PLC: Key Financials
Figure 14 LivaNova PLC: Segmental Revenue
Figure 15 LivaNova PLC: Geographical Revenue
Figure 16 EnteroMedics Inc: Key Financials
Figure 17 EnteroMedics Inc: Segmental Revenue
Figure 18 EnteroMedics Inc: Geographical Revenue
Figure 19 ElectroCore Medical LLC: Key Financials
Figure 20 ElectroCore Medical LLC: Segmental Revenue
Figure 21 ElectroCore Medical LLC: Geographical Revenue
Figure 22 Boston Scientific Corporation: Key Financials
Figure 23 Boston Scientific Corporation: Segmental Revenue
Figure 24 Boston Scientific Corporation: Geographical Revenue
Figure 25 Cyberonics, Inc.: Key Financials
Figure 26 Cyberonics, Inc: Segmental Revenue
Figure 27 Cyberonics, Inc: Geographical Revenue
Figure 28 NeuroMetrix, Inc.: Key Financials
Figure 29 NeuroMetrix, Inc.: Segmental Revenue
Figure 30 NeuroMetrix, Inc.: Geographical Revenue
Figure 31 Inspire Medical Systems, Inc.: Key Financials
Figure 32 Inspire Medical Systems, Inc.: Segmental Revenue
Figure 33 Inspire Medical Systems, Inc.: Geographical Revenue