

Global Brain Implant Market Size study & Forecast, by Product (Deep Brain Stimulator, Spinal Cord Stimulator, Vagus Nerve Stimulator), by Application (Chronic pain, Epilepsy, Parkinson's, Depression, Essential Tremor, Alzheimer's) and Regional Analysis, 2023-2030

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Abstracts

Global Brain Implant Market is valued at approximately USD 5.40 billion in 2022 and is anticipated to grow with a healthy growth rate of more than 9.7% during the forecast period 2023-2030. A brain implant is a surgically placed medical device that monitors or regulates brain function. They are designed to help patients with neurological diseases or traumas restore lost function or improve their quality of life. Furthermore, there are other types of brain implants, each with a specific function. Certain types of brain implants are used to treat neurological disorders such as Parkinson's disease, epilepsy, and Alzheimer's disease. These implants treat symptoms by transmitting electrical impulses to specific areas of the brain. The Brain Implant Market is expanding because of factors such as the rising prevalence of neurological disorders, the increasing geriatric population worldwide, the increasing incidence of target populations and growing knowledge of the advantages of brain implants.

The rise in the predominance of the elderly population, which is more prone to epilepsy and Parkinson's, is the primary driver of market expansion. In addition, there is an increase in demand for less invasive devices. Patients are increasingly looking for treatments with higher success rates, less pain, and long-term effectiveness, all of which are delivered by brain implants. Furthermore, the introduction of technologies such as motor neuron prostheses, microelectrode arrays, Brain-Computer Interfaces (BCIs), Medtronic's MRI safety-enabled brain implants and Neurowave Medical

Technologies' transdermal neuromodulation technology are projected to open up significant market prospects. This advancement represents a high-impact rendering potential for the market. For instance, Elon Musk launched Neuralink, a neurotechnology business that is researching brain implants to treat a variety of neurological ailments such as paralysis, Alzheimer's disease, and Parkinson's. Neuralink's implants are supposed to be minimally invasive which can be inserted into the brain using a surgical robot. However, tight government controls on medical device production to ensure device quality and safety cause product clearance delays, limiting market growth.

The key regions considered for the Global Brain Implant Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to factors such as an increase in target diseases such as Parkinson's and epilepsy, the availability of advanced brain implants, the presence of well-developed healthcare infrastructure, and favorable reimbursement policies in healthcare systems. For instance, according to the (Centers for Disease Control and Prevention) CDC, Alzheimer's disease is the most common form of dementia. Currently, over 5.8 million people in the United States suffer with Alzheimer's disease and related dementias. This includes around 5.6 million people aged 65 and more, as well as approximately 200,000 people under 65 who have early-onset Alzheimer's. According to projections, the number of Alzheimer's cases could reach 14 million by 2060, with minority groups bearing a disproportionate share of the burden. Asia Pacific is expected to grow significantly over the forecast period, owing to factors such as rising prevalence of neurodegenerative and psychiatric disorders, unmet need for effective and long-term treatment solutions, rising affordability, and an increase in the number of awareness programs. Increasing efforts by neurosurgeons and neurology clinics to create knowledge about brain implants are likely to provide considerable potential prospects for the market in this region.

Major market player included in this report are:

Medtronic plc

Boston Scientific Corporation

St. Jude Medical Inc. (Abbott)

NeuroPace, Inc.

Nevro Corp.

Synapse Biomedical Inc.

Aleva Neurotherapeutics SA

LivaNova PLC

MicroTransponder Inc.

Edwards Lifesciences Corporation

Recent Developments in the Market:

In February 2023, LivaNova PLC, a market-leading medical technology and innovation business, announced the release of SenTiva DUO, an Implantable Pulse Generator (IPG) with a dual-pin header that offers VNS Therapy for the treatment of drug-resistant epilepsy.

In September 2022, Aleva Neurotherapeutics SA, the pioneer of Directional Deep Brain Stimulation (DBS) in Neuromodulation, gained CE clearance for the MRI labelling of the directSTIM DBS System, to be utilized in a full-body Magnetic Resonance Imaging (MRI) environment.

In March 2021, Abbott announced the introduction of the NeuroSphere Virtual Clinic. Deep brain stimulation patients can set up and reset their devices remotely from the comfort of their own homes, without having to visit a professional, according to a newly released FDA-approved technology.

Global Brain Implant Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive

Landscape, Growth factors, and Trends

Segments Covered - Product, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Product:

Deep Brain Stimulator

Spinal Cord Stimulator

Vagus Nerve Stimulator

By Application:

Chronic pain

Epilepsy

Parkinson's

Depression

Essential Tremor

Alzheimer's

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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