

Artificial Vital Organs and Medical Bionics Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

Market Overview:

The global artificial vital organs and medical bionics market size reached US\$ 44.3 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 63.6 Billion by 2028, exhibiting a growth rate (CAGR) of 6.08% during 2023-2028.

Artificial vital organs are engineered devices that can be implanted into the human body for replacing a natural organ. They reduce the harmful impact of damaged organs while patients wait for organ transplants. On the other hand, medical bionics is a multidisciplinary field of research for developing implantable devices, which are designed to provide long-term safety and effective sensory or motor function to nerve or muscle tissues. They are used to develop cloned liver cells that filter toxins from the plasma and secrete albumin proteins and clotting factors like a normal liver. They also assist in designing an intravenous membrane oxygenator (IMO), which is integrated directly within the vena cava system to oxygenate the blood as it returns to the heart before reaching the natural lungs.

Artificial Vital Organs and Medical Bionics Market Trends:

At present, there is a rise in the prevalence of various diseases, such as respiratory ailments, cirrhosis, and heart, kidney, and liver failures. This, along with the burgeoning healthcare industry, represents one of the key factors driving the market. Besides this, the increasing geriatric population that is highly prone to organ disorders across the globe is contributing to the growth of the market. In addition, the growing development of novel products, such as full-functioning artificial hearts, livers, lungs, urethras,

windpipes, and livers, is positively influencing the market. Moreover, key market players are extensively investing in research and development (R&D) activities to introduce new techniques of organ regeneration through engineered tissues, which is offering a positive market outlook. Apart from this, the rising demand for artificial organs due to the development of bioartificial organs with improved survival rates and faster recuperation of patients is propelling the growth of the market. Additionally, the implementation of life-saving technologies, such as the bridge to transplant and the bridge to recovery in critical cases, is bolstering the growth of the market.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global artificial vital organs and medical bionics market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on product type and application.

Breakup by Product Type:

Artificial Vital Organs

Artificial Liver

Artificial Heart

Artificial Pancreas

Artificial Kidney

Artificial Lungs

Oxygenators

Medical Bionics

Bionic Limbs

Vision Bionics

Ear Bionics

Exoskeletons

Brain Bionics

Heart Valves

Cardiac Bionics

Breakup by Application:

Hospitals

Clinics

Others

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Abiomed, BiVACOR Inc, CARMAT, Cirtec Medical, Edwards Lifesciences, Ekso Bionics Holdings Inc., Nikkiso Co. Ltd., Second Sight Medical Products Inc and SynCardia Systems LLC (Picard Medical Inc.).

Key Questions Answered in This Report

1. How big is the global artificial vital organs and medical bionics market?

2. What is the expected growth rate of the global artificial vital organs and medical bionics market during 2023-2028?

3. What are the key factors driving the global artificial vital organs and medical bionics market?

4. What has been the impact of COVID-19 on the global artificial vital organs and medical bionics market?

5. What is the breakup of the global artificial vital organs and medical bionics market based on the product type?

6. What are the key regions in the global artificial vital organs and medical bionics market?

7. Who are the key players/companies in the global artificial vital organs and medical bionics market?

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