Biomaterials Market by Type [Metallic (Gold, Magnesium), Ceramic (Aluminum Oxide, Carbon), Polymer (Polyethylene, Polyester), Natural (Hyaluronic acid, Collagen, Gelatin)], Application (Orthopedic, Dental, CVD, Ophthalmology) - Global Forecast to 2030

Market Report | 2026-01-26 | 619 pages | MarketsandMarkets

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Report description:

The global Biomaterials market is projected to reach USD 68.93 billion by 2030 from USD 48.36 billion in 2025, at CAGR of 7.3% from 2025 to 2030. The expansion of the Global Biomaterials market has been fueled by the advancements in healthcare facilities and systems, and the rising advancements in smart, biocompatible, and 3D-printed biomaterials.
In 2024, The metallic biomaterials held the highest share in the Global Biomaterials market by type.

https://mnmimg.marketsandmarkets.com/Images/biomaterials-img-overview.webp

The market is segmented into Metallic Biomaterials, Polymeric Biomaterials, Ceramic Biomaterials, Natural Biomaterials. The highest share by type was of metallic biomaterials due to their wide application in orthopedic, dental, and cardiovascular fields. The mechanical properties make them the suitable for application in implants such as joint replacements, fracture fixation devices, dental implants, and stints. The commonly used biomaterials are titanium and its alloys, stainless steel, cobalt chromoly alloys, and more recently, biodegradable metal alloys like magnesium-based metal. These exhibit remarkable resistance to fatigue failure, corrosion, and remarkable compatibility. They were also found to be safe for long-term use in a physiological environment. However, constant progress in surface modification technologies such as surface modification through coating and surface treatment has greatly improved their osseointegration, friction, and resistance to infections. Moreover, rising surgical procedures, an ageing population, and an increase in musculoskeletal and cardiac disorders are expected to propel the demand for metallic biomaterials across the globe, consolidating their strong position in the global biomaterials.

"Joint replacement segment reported for the highest share of the orthopedic application segment in 2024."

Within the application segment, the Global Biomaterials market is divided into Cardiovascular, Orthopedic, Ophthalmology, Dental, Plastic Surgery, Tissue engineering, neurological application Wound Healing, Urinary application, and Other Applications. In 2024, Joint replacement represents the leading segment in orthopedic applications in the global biomaterials. Due to an increasing number of people suffering from degenerative joint diseases like osteoarthritis and rheumatoid arthritis. factors like an aging population, and an increasing rate of obesity have also led to an increasing number of people undergoing knee, shoulder, or hip replacements. However, materials used in joint replacements, have improved strength, durability, or biocompatibility that makes these materials highly suitable for applications involving heavy loading. Advances in implant design, surface technology, or method of implantation also continue to increase patient survival with these implants. Furthermore, increasing utilization of minimal invasiveness in surgeries, increasing availability of orthopedic care in developing nations, or ever-improving implant technologies continue to drive this market.

APAC accounted for the fastest growing market share in the global Biomaterials market from 2025 to 2030.

The biomaterials market is segmented into North America, Europe, Asia Pacific, Latin America, Middle East and Africa. APAC region is projected to grow at the highest CAGR during the forecast period . This surge is driven by rapid healthcare infrastructure expansion in China, India, and Japan, alongside booming medical tourism and rising chronic disease burdens like orthopedics and cardiology. An aging population, government R&D investments, and adoption of 3D-printed implants and bioresorbable polymers fuel demand for advanced metallic, polymeric, and ceramic solutions in joint replacements, stents, and tissue engineering. Local manufacturing hubs and regulatory streamlining further accelerate market penetration, positioning APAC as a key innovation powerhouse.

The primary interviews conducted for this report can be categorized as follows:

-□By Respondent: Supply Side-70% and Demand Side-30%
-□By Designation: Managers-45%, CXO and Directors-30%, and Executives-25%
-□By Region: North America-40%, Europe-25%, the Asia Pacific-25%, Latin America-5%, and the Middle East & Africa-5%
List of Key Companies Profiled in the Report:
Key players in the Global Biomaterials market include BASF SE (Germany), Covestro AG (Germany), Celanese Corporation (US), Carpenter Technology Corporation (US), DSM (Netherlands), Corbion NV (Netherlands), Evonik Industries AG (Germany), Victrex Plc (UK), CeramTec GmbH (Germany), Mitsubishi Chemical Group Corporation (Japan), CoorsTek Inc. (US), Berkeley Advanced Biomaterials (US), CAM Bioceramics B.V. (Netherlands), Zeus Company Inc. (US), AMETEK Inc. (US), and GELITA AG (Germany).
Research Coverage:
This research report categorizes the Global Biomaterials market, By Type: Metallic Biomaterials, Polymeric Biomaterials, Ceramic Biomaterials, Natural Biomaterials, By Application: Cardiovascular Orthopaedic, Dental, Plastic Surgery, Urinary, Wound Healing, Tissue Engineering, Ophthalmology, Neurological/Central Nervous System, Other Applications. and by region (North America, Europe, Asia Pacific, Latin America, Middle East and Africa).
The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the Biomaterials market. A detailed analysis of the key industry players has been done to provide insights into their business overview, products, solutions, key strategies, collaborations, partnerships, and agreements. New approvals/launches, collaborations, acquisitions, and recent developments associated with the Global Biomaterials market.
Key Benefits of Buying the Report:
The report will help market leaders and new entrants by providing them with the closest approximations of the revenue numbers for the overall Biomaterials market and its subsegments. It will also help stakeholders better understand the competitive

landscape and gain more insights to better position their businesses and make suitable go-to-market strategies. This report will enable stakeholders to understand the market's pulse and provide them with information on the key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

-□Analysis of key drivers (Rising advancements in smart, biocompatible, and 3D-printed biomaterials, Advancements in healthcare facilities and systems), restraints (High development and production costs associated with advanced biomaterials.), opportunities (Expanding applications in tissue engineering and regenerative medicine.) and Challenges (Concerns related to biocompatibility, safety, and adverse immune responses).

-□Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities in the Global Biomaterials market

-□Market Development: Comprehensive information about lucrative markets - the report analyses the market across varied regions.

-□Market Diversification: Exhaustive information about untapped geographies, recent developments, and investments in the Global Biomaterials market

-□Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players. A detailed analysis of the key industry players has been done to provide insights into their key strategies, product launches/ approvals, pipeline analysis, acquisitions, partnerships, agreements, collaborations, other recent developments, investment and funding activities, brand/product comparative analysis, and vendor valuation and financial metrics of the Global Biomaterials market.

Table of Contents:

Biomaterials Market by Type [Metallic (Gold, Magnesium), Ceramic (Aluminum Oxide, Carbon), Polymer (Polyethylene, Polyester), Natural (Hyaluronic acid, Collagen, Gelatin)], Application (Orthopedic, Dental, CVD, Ophthalmology) - Global Forecast to 2030

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