Global Bone Graft Substitute Market: Information by Type (Autograft, Demineralized Bone Matrix, Synthetic Bone Grafts, Bone Morphogenetic Protein and others), Application (Spinal Fusion, Joint Reconstruction, Long Bone, Dental, Foot & Ankle and others) and Region (Americas, Europe, Asia-Pacific and Middle East & Africa) - Forecast till 2027

Overview

The Global Bone Graft Substitute Market is expected to register a CAGR of 6.52% and is anticipated to reach USD 5,031.0 Million by 2027. Bone grafting is a surgical procedure carried out to address the problems related to the bones. The procedure involves transplanting a bone tissue to augment and regenerate bones that are lost due to a disease or an injury. Autograft has been used for decades for grafting purposes. Autograft is considered as the gold standard of the bone grafting procedures. However, due to the double incision required in the autografting process, and the pain associated with the procedure and the post-operative pain on both the sites has encouraged scientists to look for the substitute products for the autografts. As the trend is changing, the use of the allografts, xenografts, and synthetic bone grafts is on the rise. With the development of these innovative products as the substitutes for the real bones, the global market for bone graft substitute is growing.

The increase in the number of bone grafting procedures, growing aging population with demand for high-quality musculoskeletal function in old age and increasing penetration of orthopedic specialty hospitals and healthcare insurance are the major drivers propelling market growth. However, the risk and complications from bone grafting procedures and high cost of bone graft treatment constrain the growth of the market.

Market Dynamics

The aging population with demand for high-quality musculoskeletal function in old age is expected to drive the growth of the market. For instance, the world health organization (WHO) estimates that between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22% and by 2020, the number of people aged 60 years and older will outnumber children younger than five years. WHO also states that the pace of population aging is much faster than in the past, and by 2050, 80% of older people will be living in low- and middle-income countries. With old age, there comes a high risk of damaging the bones, which result in the increased need of the bone grafting and bone regeneration procedures. Thus, increasing demand for the high-quality musculoskeletal function can boost the growth of the bone graft substitute market.

Global Bone Graft Substitute Market Size, by Type, 2016 (USD Million)
The global bone graft substitute market has been segmented into type and application. By type, the market has been segmented into autograft, demineralized bone matrix, synthetic bone grafts, bone morphogenetic protein, and others. Based on application, the market has been segregated into spinal fusion, joint reconstruction, long bone, dental, foot & ankle, and others. The autograft segment accounted for a market value of USD 833.4 million in 2016.

Key Players

The prominent players in the global bone graft substitute market are ACE Surgical Supply Company, Inc. (US), BioHorizons (US), Dentium (South Korea), Dentsply Sirona (US), Institut Straumann AG (Switzerland), Medtronic (Ireland), Stryker (US), and Zimmer Biomet (US).

Some of the key strategies followed by the players operating in the global bone graft substitute market were innovation, product development, acquisition, and expansion.

Regional Analysis

The global bone graft substitute market, based on region, is divided into the Americas, Europe, Asia-Pacific, and the Middle East & Africa. Americas commanded the market with the largest market share in 2016, and the Americas is expected to continue to be the largest market for the bone graft substitutes during the forecasted period 2017 to 2027. The European market is slowly catching up with the American market due to advances in the orthopedic sciences and development of the dental industry in Europe; the bone grafts substitute market has grown significantly in the region. Asia-Pacific Bone Graft Substitute Market Share, by Country, 2016 (%)

Source: MRFR Analysis

Segmentation

The global bone graft substitute market has been segmented into type and application. By type, the market has been segmented into autograft, demineralized bone matrix, synthetic bone grafts, bone morphogenetic protein, and others. Based on application, the market has been segregated into spinal fusion, joint reconstruction, long bone, dental, foot & ankle, and others. The autograft segment accounted for a market value of USD 833.4 million in 2016.

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Pacific region is accepting the changing trend of the bone grafting, and it is expected to be the fastest-growing region in the bone graft substitute market during the forecasted period 2017 to 2027. Moreover, in Asia-Pacific, Australia accounted for a market share of 14.3% in 2016. Furthermore, the market in the Middle East & Africa is expected to witness steady growth due to limited access to healthcare facilities.

**Key Updates**

- In 2016, Dentium Co., Ltd released OSTEON III Collagen. OSTEON III Collagen is highly resorbable due to higher β-TCP content, resulting in convenient handling and has excellent wettability. It is an osteoconductive synthetic bone graft. This product launch helped the company to expand its product portfolio.

- In February 2017, Dentsply Sirona opened its production facility in Tokyo, Japan. This geographical expansion strengthened the company’s foothold in the high-value Japanese market.

- In June 2017, Rapid Shape and Institut Straumann AG formed a partnership to drive 3D printing technology in dental labs and practices. The partnership enabled the company to share risks and rewards in potentially disruptive technology.

**Market Segmentation**

**Global Bone Graft Substitute Market, by Type**

- Autograft
- Demineralized Bone Matrix
- Synthetic Bone Grafts
- Bone Morphogenetic Protein
- Others

**Global Bone Graft Substitute Market, by Application**

- Spinal Fusion
- Joint Reconstruction
- Long Bone
- Dental
- Foot & Ankle
- Others

**Global Bone Graft Substitute Market, by Region**

- Americas
  - North America
    - US
    - Canada
  - South America
- Europe
  - Western Europe
    - Germany
    - France
    - UK
    - Italy
    - Spain
    - Rest of Western Europe
  - Eastern Europe
- Asia-Pacific
  - Japan
  - China
  - India
  - South Korea
  - Australia
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Available Additional Customizations

- Additional Companies
  - LifeNet Health
  - Geistlich
  - RTI Surgical Holdings, Inc.

- Supply & Demand Analysis

Intended Audience

- Medical device manufacturers and distributors
- Government research organizations
- Hospitals and clinics
- Regulatory agencies
- Pharmaceutical companies