

Biomaterials Market by Type of Materials (Metallic, Ceramic, Polymers, Natural), Application (Cardiovascular, Orthopedic, Dental, Plastic Surgery, Wound Healing, Neurological disorders, Tissue Engineering, Ophthalmology) - Global Forecast to 2025

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Abstracts

The global biomaterials market is projected to reach USD 47.5 billion by 2025 from USD 35.5 billion in 2020, at a CAGR of 6.0% during the forecast period. Growth in this market is primarily attributed to increasing funds and grants by government bodies and universities for the development of novel biomaterials, increasing demand for implantable devices, growing demand for biomaterials in plastic surgery and wound healing applications, rising incidences of cardiovascular diseases, and rising awareness and research on regenerative medicine.

“By metallic biomaterials segment, the Titanium & Titanium Alloys segment accounted for the fastest-growing segment of the biomaterials market.”

On the basis of type, the metallic biomaterials are further segmented as Stainless Steel, Titanium & Titanium Alloys, Cobalt-Chrome Alloys, Gold, Silver, and Magnesium. The Titanium & Titanium Alloys accounted for the fastest-growing segment of the metallic biomaterials segment. These biomaterials do not show any form of toxicity or allergic reactions on contact with the body. Additionally, factors such as excellent biocompatibility, corrosion resistance, the balance of mechanical properties, and low weight stimulate the demand for titanium-based biomaterials.

“By Cardiovascular application segment, stents Catheters accounted for the largest

share of the biomaterials market”

Based on application, the cardiovascular application market is categorized into nine sub-segments— Catheters, Stents, Implantable Cardiac Defibrillators, Pacemakers, Sensors, Heart Valves, Vascular Grafts, Guidewires, and Other products. Catheters accounted for the largest share of the cardiovascular application segment due to the shift in patient preference from traditional open surgeries to minimally invasive surgeries. This trend is expected to propel the use of catheters and in turn, drive the growth of the biomaterials market during the forecast period.

“Asia Pacific: The fastest-growing region in the biomaterials market.”

The Asia Pacific region is estimated to grow at the highest CAGR in the biomaterials market during the forecast period, this is mainly due to Japan’s growing healthcare industry, increasing geriatric population, rising number of cosmetic and plastic surgeries in India, lucrative medical devices industry, and favorable tax policies in China.

“North America: the largest share of the biomaterials market”

North America accounted for the largest share of the biomaterials market. Factors such as rising biomaterials-based research, growing demand for plastic surgeries, increase in cancer incidence, and the growing number of cardiovascular diseases are contributing to the growth of the biomaterials market in the US. In Canada, market growth is mainly driven by increasing funding for biomaterials and increasing R&D activity.

Breakdown of primaries

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company— Tier 1 - 37%, Tier 2- 22%, Tier 3- 41%

By Designation— C Level - 25%, Directors - 20%, Others - 55%

By Region— North America - 40%, Europe - 27%, APAC – 20%, RoW- 13%

The biomaterials market is dominated by a few globally established players such as BASF SE (Germany), Covestro AG (Germany), Celanese Corporation

(Germany), Carpenter Technology (US), Corbion (Netherlands), Royal DSM (Netherlands), Evonik Industries (Germany), Mitsubishi Chemical Holdings Corporation (Japan), Victrex Plc (UK), Berkeley Advanced Biomaterials (US), GELITA AG (Germany), Zeus Industrial Products, Inc. (US), Cam Bioceramics (Netherlands), Solvay (US), AB Specialty Silicones (US), CoorsTek (US), CeramTec GmbH (Germany), The Lubrizol Corporation (US), Olympus Terumo Biomaterials Corporation (Japan), Xylos Corporation (US), Noble Biomaterials, Inc. (US), Dimension Inx (US), Artoss, Inc. (US), RDI Group (US), and Riton Biomaterial Co., Ltd. (China).

Research Coverage:

The report segments the biomaterials market based on region (Asia Pacific, Europe, North America, and RoW), by type (Metallic Biomaterials [Stainless Steel, Titanium & Titanium Alloys, Cobalt-Chrome Alloys, Gold, Silver, Magnesium])(Ceramic Biomaterials [Calcium Phosphate, Zirconia, Aluminium Oxide, Calcium Sulphate, Carbon, Glass])(Polymeric Biomaterials [Polymethylmethacrylate (PMMA), Polyethylene, Polyester, Polyvinylchloride (PVC), Silicone Rubber, Nylon, PEEK, Other Polymers]). (Natural Biomaterials [Hyaluronic Acid, Collagen, Gelatin, Fibrin, Cellulose, Chitin, Alginates, Silk]). By application (Cardiovascular [Stents, Pacemakers, Implantable Cardiac Defibrillators, Heart Valves, Catheters, Vascular, Grafts, Guidewires, Sensors, Others]), (Orthopedic [Joint Replacement {Knee Replacement, Hip Replacement, Shoulder Replacements, Others}]), (Viscosupplementation), (Bioresorbable Tissue Fixation Products [Suture Anchors, Interference Screws, Meniscal Repair Tacks, Meshes]), (Spine [Spinal Fusion], [Motion Preservation/Dynamic Stabilization {Pedicle-based rod Systems, Interspinous Spacers, Artificial Discs}], [Minimally Invasive Fusion Surgery], [Synthetic bone grafts], [Fracture fixation devices {Bone Plates, Screws, Pins, Rods, Wires}]), (Ophthalmology [Intraocular Lens, Contact Lens, Functional Replacements of Ocular Tissues, Synthetic Corneas, Others]), (Dental [Dental Implants, Dental Bone Grafts & Substitutes, Dental Membranes, Tissue Regeneration Materials]), (Plastic Surgery [Soft Tissue Fillers, Craniofacial Surgery]), (Wound Healing [Wound Closure Devices {Sutures, Staples}], [Surgical Hemostats], [Internal Tissue Sealant], [Adhesion Barriers], [Hernia Meshes]), Tissue Engineering [Scaffolds For Regenerative Medicine, Nanomaterials For Biosensing Applications, Tailoring of Inorganic Nanoparticles], Neurology [Shunting Systems, Cortical Neural Prosthetics (CNP), Hydrogel Scaffolds for CNS Repair, Neural Stem Cell Encapsulation], (Other Applications [Drug Delivery Systems, Gastrointestinal Applications, Bariatric Surgery, Urinary Applications]). The report also provides a comprehensive review of market drivers, restraints, opportunities, challenges and trends in the biomaterials market.

Key Benefits of Buying the Report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the biomaterials market and provides them information on key market drivers, restraints, challenges, opportunities and trends.

Contents

1 INTRODUCTION

1.1 OBJECTIVES OF STUDY

1.2 MARKET DEFINITION

1.2.1 INCLUSIONS AND EXCLUSIONS

1.3 MARKET SCOPE

1.3.1 MARKETS COVERED

FIGURE 1 GLOBAL BIOMATERIALS MARKET SEGMENTATION

1.3.2 YEARS CONSIDERED FOR THE STUDY

1.4 CURRENCY

1.5 LIMITATIONS

1.6 STAKEHOLDERS

1.7 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 Key data from secondary sources

2.1.2 PRIMARY DATA

FIGURE 3 PRIMARY SOURCES

2.1.2.1 Key data from primary sources

FIGURE 4 BREAKDOWN OF PRIMARY INTERVIEWS

2.2 MARKET SIZE ESTIMATION

FIGURE 5 MARKET SIZE ESTIMATION: REVENUE SHARE ANALYSIS

FIGURE 6 MARKET SIZE ESTIMATION: BIOMATERIALS MARKET

FIGURE 7 SEGMENTAL ASSESSMENT: BIOMATERIALS MARKET

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 8 DATA TRIANGULATION METHODOLOGY

2.4 MARKET SHARE ESTIMATION

2.5 ASSUMPTIONS FOR THE STUDY

3 EXECUTIVE SUMMARY

FIGURE 9 BIOMATERIALS MARKET, BY TYPE, 2020 VS. 2025 (USD BILLION)

FIGURE 10 METALLIC BIOMATERIALS MARKET, BY TYPE, 2020 VS. 2025 (USD

Biomaterials Market by Type of Materials (Metallic, Ceramic, Polymers, Natural), Application (Cardiovascular,...

BILLION)

FIGURE 11 CERAMIC BIOMATERIALS MARKET, BY TYPE, 2020 VS. 2025 (USD BILLION)

FIGURE 12 POLYMERIC BIOMATERIALS MARKET, BY TYPE, 2020 VS. 2025 (USD BILLION)

FIGURE 13 NATURAL BIOMATERIALS MARKET, BY TYPE, 2020 VS. 2025 (USD BILLION)

FIGURE 14 CARDIOVASCULAR APPLICATIONS DOMINATED THE BIOMATERIALS MARKET IN 2019

FIGURE 15 GEOGRAPHICAL SNAPSHOT OF THE BIOMATERIALS MARKET

4 PREMIUM INSIGHTS

4.1 BIOMATERIALS MARKET OVERVIEW

FIGURE 16 INCREASING DEMAND FOR IMPLANTABLE DEVICES TO DRIVE THE GROWTH OF THE MARKET

4.2 NORTH AMERICA: BIOMATERIALS MARKET, BY TYPE & COUNTRY (2019)

FIGURE 17 METALLIC BIOMATERIALS TO DOMINATE THE NORTH AMERICAN BIOMATERIALS MARKET IN 2019

4.3 METALLIC BIOMATERIALS MARKET, BY TYPE

FIGURE 18 TITANIUM & TITANIUM ALLOYS ARE PROJECTED TO WITNESS THE HIGHEST GROWTH DURING THE FORECAST PERIOD

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 19 BIOMATERIALS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, CHALLENGES, AND TRENDS

5.2.1 DRIVERS

5.2.1.1 Increased funds and grants by government bodies and universities for the development of novel biomaterials

5.2.1.2 Increasing demand for implantable devices

5.2.1.3 Growing demand for biomaterials in plastic surgery and wound healing applications

5.2.1.4 Rising incidence of cardiovascular diseases

5.2.1.5 Increasing research on regenerative medicine

5.2.2 RESTRAINTS

5.2.2.1 Stringent clinical & regulatory processes

5.2.2.2 Unfavorable healthcare reforms in the US

5.2.3 OPPORTUNITIES

5.2.3.1 Growing healthcare market in emerging economies

5.2.3.2 Increasing number of free-trade agreements

5.2.4 CHALLENGES

5.2.4.1 Limitations of biomaterial-based products

5.2.4.2 Shortage of skilled surgeons

5.2.5 TRENDS

5.2.5.1 Impact of COVID-19 on the biomaterials market

6 REGULATORY ASSESSMENT

6.1 INTRODUCTION

6.2 US

6.2.1 INTRODUCTION

6.2.2 FDA DEVICE CLASSIFICATION

FIGURE 20 US: REGULATORY APPROVAL PROCESS

6.2.3 US: REGULATORY APPROVAL TIMELINE ASSESSMENT

FIGURE 21 REGULATORY APPROVAL TIMELINE IN THE US

6.2.4 STRINGENT FDA REGULATIONS GOVERNING PRODUCT APPROVALS

6.3 CANADA

6.3.1 INTRODUCTION

FIGURE 22 CANADA: REGULATORY APPROVAL PROCESS

6.3.2 CANADA: REGULATORY APPROVAL TIMELINE ASSESSMENT

FIGURE 23 REGULATORY APPROVAL TIMELINE IN CANADA

6.3.3 HEALTH CANADA CLASSIFICATION

6.4 EUROPE

6.4.1 INTRODUCTION

6.4.2 EUROPEAN MEDICAL DEVICE CLASSIFICATION

FIGURE 24 EUROPE: REGULATORY APPROVAL PROCESS

6.4.3 EUROPE: REGULATORY APPROVAL TIMELINE ASSESSMENT

FIGURE 25 REGULATORY APPROVAL TIMELINE IN EUROPE

6.4.4 EUROPEAN REGULATORY PROCESS TO GET MORE STRINGENT IN FUTURE

6.5 JAPAN

6.5.1 INTRODUCTION

6.5.2 PMDA DEVICE CLASSIFICATION

FIGURE 26 JAPAN: REGULATORY APPROVAL PROCESS

6.5.3 JAPAN: REGULATORY APPROVAL TIMELINE ASSESSMENT

FIGURE 27 REGULATORY APPROVAL TIMELINE IN JAPAN**6.5.4 REVISION OF THE PHARMACEUTICAL AFFAIRS LAW (PAL) AND IMPLEMENTATION OF THE NEW PMD ACT IN JAPAN****6.6 CHINA****6.6.1 INTRODUCTION****6.6.2 CFDA DEVICE CLASSIFICATION****FIGURE 28 CHINA: REGULATORY APPROVAL PROCESS****6.6.3 CHINA: REGULATORY APPROVAL TIMELINE ASSESSMENT****FIGURE 29 REGULATORY APPROVAL TIMELINE IN CHINA****6.6.4 RISING HURDLES IN THE REGULATORY PROCESS IN CHINA****6.7 INDIA****6.7.1 INTRODUCTION****FIGURE 30 INDIA: REGULATORY APPROVAL PROCESS****6.7.2 INDIAN MEDICAL DEVICES CLASSIFICATION****6.8 AUSTRALIA****6.8.1 INTRODUCTION****6.8.2 TGA DEVICE CLASSIFICATION****FIGURE 31 AUSTRALIA: REGULATORY APPROVAL PROCESS****6.8.3 AUSTRALIA: REGULATORY APPROVAL TIMELINE ASSESSMENT****FIGURE 32 REGULATORY APPROVAL TIMELINE IN AUSTRALIA****7 BIOMATERIALS MARKET, BY TYPE****7.1 INTRODUCTION**

TABLE 1 IMPORTANT PROPERTIES OF BIOMATERIALS, BY APPLICATION

TABLE 2 BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 3 BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD MILLION)

7.2 METALLIC BIOMATERIALS

TABLE 4 METALLIC BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 5 METALLIC BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 6 METALLIC BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 7 METALLIC BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.2.1 STAINLESS STEEL

7.2.1.1 Stainless steel dominates the metallic biomaterials market

TABLE 8 STAINLESS STEEL BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 9 STAINLESS STEEL BIOMATERIALS MARKET, BY REGION, 2020–2025

(USD MILLION)

7.2.2 TITANIUM & TITANIUM ALLOYS

7.2.2.1 Growing number of joint replacement procedures will drive the market for titanium biomaterials

TABLE 10 TITANIUM & TITANIUM ALLOY BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 11 TITANIUM & TITANIUM ALLOY BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.2.3 COBALT-CHROME ALLOYS

7.2.3.1 Low cost and excellent corrosion resistance have driven the use of cobalt-chrome alloys

TABLE 12 COBALT-CHROME ALLOY BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 13 COBALT-CHROME ALLOY BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.2.4 GOLD

7.2.4.1 Expanding applications of gold nanoparticles to drive the demand for gold biomaterials

TABLE 14 GOLD BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 15 GOLD BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.2.5 SILVER

7.2.5.1 Toxic properties and low aesthetic appeal likely to limit the use of silver in biomaterial-based products

TABLE 16 SILVER BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 17 SILVER BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.2.6 MAGNESIUM

7.2.6.1 Biodegradable characteristic of magnesium stimulates the growth of this market segment

TABLE 18 MAGNESIUM BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 19 MAGNESIUM BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3 POLYMERIC BIOMATERIALS

TABLE 20 APPLICATIONS OF SYNTHETIC POLYMERS

TABLE 21 POLYMERIC BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 22 POLYMERIC BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD

MILLION)

TABLE 23 POLYMERIC BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 24 POLYMERIC BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.1 POLYMETHYLMETHACRYLATE (PMMA)

7.3.1.1 PMMA dominates the polymeric biomaterials market

TABLE 25 POLYMETHYLMETHACRYLATE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 26 POLYMETHYLMETHACRYLATE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.2 POLYETHYLENE

7.3.2.1 Wear and tear resistance of polyethylene has made it popular in hip and knee joint replacements

TABLE 27 POLYETHYLENE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 28 POLYETHYLENE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.3 POLYESTER

7.3.3.1 Biodegradable nature and biocompatibility of polyester will drive its use in various medical applications

TABLE 29 POLYESTER BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 30 POLYESTER BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.4 POLYVINYLCHLORIDE

7.3.4.1 Heavy chlorine content of PVC is likely to hamper the market growth

TABLE 31 POLYVINYLCHLORIDE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 32 POLYVINYLCHLORIDE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.5 SILICONE RUBBER

7.3.5.1 Silicone rubbers are non-reactive, stable, and resistant to extreme environments and temperatures

TABLE 33 SILICONE RUBBER BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 34 SILICONE RUBBER BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.6 NYLON

7.3.6.1 Low weight, corrosion resistance, and wide applications of nylon are expected to drive the market demand

TABLE 35 NYLON BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 36 NYLON BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.7 POLYETHERETHERKETONE

7.3.7.1 PEEK is gaining popularity as a viable alternative to metals

TABLE 37 POLYETHERETHERKETONE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 38 POLYETHERETHERKETONE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.3.8 OTHER POLYMERIC BIOMATERIALS

TABLE 39 OTHER POLYMERIC BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 40 OTHER POLYMERIC BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4 CERAMIC BIOMATERIALS

TABLE 41 CERAMIC BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 42 CERAMIC BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 43 CERAMIC BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 44 CERAMIC BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.1 CALCIUM PHOSPHATE

7.4.1.1 Calcium phosphate is the largest segment in the ceramic biomaterials market

TABLE 45 CALCIUM PHOSPHATE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 46 CALCIUM PHOSPHATE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.2 ZIRCONIA

7.4.2.1 Bio-inertness and low wear rate of zirconia will boost the market growth

TABLE 47 ZIRCONIA BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 48 ZIRCONIA BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.3 ALUMINUM OXIDE

7.4.3.1 Increasing use of aluminum oxide in hip replacements and dental implants to drive the market

TABLE 49 ALUMINUM OXIDE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 50 ALUMINUM OXIDE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.4 CALCIUM SULFATE

7.4.4.1 Fast resorption rate of calcium sulfate is likely to hamper its use

TABLE 51 CALCIUM SULFATE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 52 CALCIUM SULFATE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.5 CARBON

7.4.5.1 Increasing use of carbon nanofibers in regenerative medicine and cancer treatment will drive market growth

TABLE 53 CARBON BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 54 CARBON BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.4.6 GLASS

7.4.6.1 Rising number of orthopedic and dental procedures is likely to drive the demand for glass biomaterials

TABLE 55 GLASS BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 56 GLASS BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5 NATURAL BIOMATERIALS

TABLE 57 APPLICATIONS OF NATURAL BIOMATERIALS

TABLE 58 NATURAL BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 59 NATURAL BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 60 NATURAL BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 61 NATURAL BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.1 HYALURONIC ACID

7.5.1.1 Rising prevalence of osteoarthritis to drive the hyaluronic acid market

TABLE 62 HYALURONIC ACID BIOMATERIALS MARKET, BY REGION, 2016–2019

(USD MILLION)

TABLE 63 HYALURONIC ACID BIOMATERIALS MARKET, BY REGION, 2020–2025

(USD MILLION)

7.5.2 COLLAGEN

7.5.2.1 Rising prevalence of target applications to drive growth in the collagen market

TABLE 64 COLLAGEN BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 65 COLLAGEN BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.3 GELATIN

7.5.3.1 Low cost of gelatin to drive its market growth

TABLE 66 GELATIN BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 67 GELATIN BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.4 FIBRIN

7.5.4.1 Fibrin biomaterials were among the first used to prevent bleeding

TABLE 68 FIBRIN BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 69 FIBRIN BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.5 CELLULOSE

7.5.5.1 Cellulose finds applications in wound healing, skin regeneration, and ophthalmology

TABLE 70 CELLULOSE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 71 CELLULOSE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.6 CHITIN

7.5.6.1 Chitin accelerates skin regeneration and possesses high biocompatibility

TABLE 72 CHITIN BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 73 CHITIN BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.7 ALGINATES

7.5.7.1 Various applications of alginates include wound healing, tissue engineering & regenerative medicine, and drug delivery

TABLE 74 ALGINATE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 75 ALGINATE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

7.5.8 SILK

7.5.8.1 Flexibility, glossiness, and adhesive abilities of silk have made it popular in cosmetic applications

TABLE 76 SILK BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 77 SILK BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8 BIOMATERIALS MARKET, BY APPLICATION

8.1 INTRODUCTION

TABLE 78 BIOMATERIALS MARKET, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 79 BIOMATERIALS MARKET, BY APPLICATION, 2020–2025 (USD MILLION)

8.2 CARDIOVASCULAR

TABLE 80 BIOMATERIALS MARKET FOR CARDIOVASCULAR APPLICATIONS, BY PRODUCT, 2016–2019 (USD MILLION)

TABLE 81 BIOMATERIALS MARKET FOR CARDIOVASCULAR APPLICATIONS, BY PRODUCT, 2020–2025 (USD MILLION)

TABLE 82 BIOMATERIALS MARKET FOR CARDIOVASCULAR APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 83 BIOMATERIALS MARKET FOR CARDIOVASCULAR APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

8.2.1 CATHETERS

8.2.1.1 Shift in patient preference from traditional open surgeries to minimally invasive surgeries to drive the catheters market

TABLE 84 BIOMATERIALS MARKET FOR CATHETERS, BY REGION, 2016–2019 (USD MILLION)

TABLE 85 BIOMATERIALS MARKET FOR CATHETERS, BY REGION, 2020–2025 (USD MILLION)

8.2.2 STENTS

8.2.2.1 Increasing number of coronary intervention procedures to boost the demand for implantable stents

TABLE 86 BIOMATERIALS MARKET FOR STENTS, BY REGION, 2016–2019 (USD MILLION)

TABLE 87 BIOMATERIALS MARKET FOR STENTS, BY REGION, 2020–2025 (USD MILLION)

8.2.3 IMPLANTABLE CARDIAC DEFIBRILLATORS

8.2.3.1 Growing geriatric population is expected to increase the demand for implantable cardiac defibrillators

TABLE 88 BIOMATERIALS MARKET FOR IMPLANTABLE CARDIAC DEFIBRILLATORS, BY REGION, 2016–2019 (USD MILLION)

TABLE 89 BIOMATERIALS MARKET FOR IMPLANTABLE CARDIAC DEFIBRILLATORS, BY REGION, 2020–2025 (USD MILLION)

8.2.4 PACEMAKERS

8.2.4.1 High prevalence of bradycardia is increasing the demand for pacemakers

TABLE 90 BIOMATERIALS MARKET FOR PACEMAKERS, BY REGION, 2016–2019 (USD MILLION)

TABLE 91 BIOMATERIALS MARKET FOR PACEMAKERS, BY REGION, 2020–2025 (USD MILLION)

8.2.5 SENSORS

8.2.5.1 Increasing prevalence of cardiac disorders is boosting the demand for cardiovascular sensors

TABLE 92 BIOMATERIALS MARKET FOR SENSORS, BY REGION, 2016–2019 (USD MILLION)

TABLE 93 BIOMATERIALS MARKET FOR SENSORS, BY REGION, 2020–2025 (USD MILLION)

8.2.6 HEART VALVES

8.2.6.1 Growing geriatric population is set to increase the demand for prosthetic valves

TABLE 94 BIOMATERIALS USED FOR DIFFERENT VALVE COMPONENTS

TABLE 95 BIOMATERIALS MARKET FOR HEART VALVES, BY REGION, 2016–2019 (USD MILLION)

TABLE 96 BIOMATERIALS MARKET FOR HEART VALVES, BY REGION, 2020–2025 (USD MILLION)

8.2.7 VASCULAR GRAFTS

8.2.7.1 Various research studies related to the use of biomaterials in vascular grafts will open opportunities for growth of the market

TABLE 97 BIOMATERIALS MARKET FOR VASCULAR GRAFTS, BY REGION, 2016–2019 (USD MILLION)

TABLE 98 BIOMATERIALS MARKET FOR VASCULAR GRAFTS, BY REGION, 2020–2025 (USD MILLION)

8.2.8 GUIDEWIRES

8.2.8.1 Guidewires are widely used for guiding catheters and placing stents inside the heart

TABLE 99 BIOMATERIALS MARKET FOR GUIDEWIRES, BY REGION, 2016–2019 (USD MILLION)

TABLE 100 BIOMATERIALS MARKET FOR GUIDEWIRES, BY REGION, 2020–2025 (USD MILLION)

8.2.9 OTHER PRODUCTS

TABLE 101 BIOMATERIALS MARKET FOR OTHER PRODUCTS, BY REGION, 2016–2019 (USD MILLION)

TABLE 102 BIOMATERIALS MARKET FOR OTHER PRODUCTS, BY REGION, 2020–2025 (USD MILLION)

8.3 ORTHOPEDIC

TABLE 103 BIOMATERIALS MARKET FOR ORTHOPEDIC APPLICATIONS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 104 BIOMATERIALS MARKET FOR ORTHOPEDIC APPLICATIONS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 105 BIOMATERIALS MARKET FOR ORTHOPEDIC APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 106 BIOMATERIALS MARKET FOR ORTHOPEDIC APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

8.3.1 JOINT REPLACEMENT

TABLE 107 JOINT REPLACEMENT BIOMATERIALS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 108 JOINT REPLACEMENT BIOMATERIALS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 109 JOINT REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 110 JOINT REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.1.1 Knee replacement

8.3.1.1.1 Increasing number of knee replacement procedures across the globe to drive market growth

TABLE 111 KNEE REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 112 KNEE REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.1.2 Hip replacement

8.3.1.2.1 Hip and knee joint replacements are the most commonly performed procedures in the US—a key factor driving growth

TABLE 113 HIP REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 114 HIP REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.1.3 Shoulder replacement

8.3.1.3.1 Shoulder replacement is the most common joint replacement surgery

conducted globally

TABLE 115 SHOULDER REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 116 SHOULDER REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.1.4 Other joint replacement applications

TABLE 117 OTHER JOINT REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 118 OTHER JOINT REPLACEMENT BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.2 VISCOSUPPLEMENTATION

8.3.2.1 Rising cases of osteoarthritis will drive growth in the viscosupplementation market

TABLE 119 VISCOSUPPLEMENTATION BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 120 VISCOSUPPLEMENTATION BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.3 BIORESORBABLE TISSUE FIXATION

TABLE 121 BIORESORBABLE BIOMATERIALS MARKET, BY PRODUCT, 2016–2019 (USD MILLION)

TABLE 122 BIORESORBABLE BIOMATERIALS MARKET, BY PRODUCT, 2020–2025 (USD MILLION)

TABLE 123 BIORESORBABLE BIOMATERIALS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 124 BIORESORBABLE BIOMATERIALS MARKET, BY REGION, 2020–2025 (USD MILLION)

8.3.3.1 Suture anchors

8.3.3.1.1 Growing awareness about suture anchor devices will drive market growth

TABLE 125 BIOMATERIALS MARKET FOR SUTURE ANCHORS, BY REGION, 2016–2019 (USD MILLION)

TABLE 126 BIOMATERIALS MARKET FOR SUTURE ANCHORS, BY REGION, 2020–2025 (USD MILLION)

8.3.3.2 Interference screws

8.3.3.2.1 Increasing awareness about ACL will contribute to market growth

TABLE 127 BIOMATERIALS MARKET FOR INTERFERENCE SCREWS, BY REGION, 2016–2019 (USD MILLION)

TABLE 128 BIOMATERIALS MARKET FOR INTERFERENCE SCREWS, BY REGION, 2020–2025 (USD MILLION)

8.3.3.3 Meniscal repair tacks

8.3.3.3.1 Rising sports injuries will drive growth in the meniscal repair tacks market
TABLE 129 BIOMATERIALS MARKET FOR MENISCAL REPAIR TACKS, BY REGION, 2016–2019 (USD MILLION)

TABLE 130 BIOMATERIALS MARKET FOR MENISCAL REPAIR TACKS, BY REGION, 2020–2025 (USD MILLION)

8.3.3.4 Meshes

8.3.3.4.1 Wear resistance, proper shaping, and holding capacity of bioresorbable implants increase the demand for bioresorbable meshes

TABLE 131 BIOMATERIALS MARKET FOR MESHES, BY REGION, 2016–2019 (USD MILLION)

TABLE 132 BIOMATERIALS MARKET FOR MESHES, BY REGION, 2020–2025 (USD MILLION)

8.3.4 SPINE

TABLE 133 BIOMATERIALS MARKET FOR SPINE SURGERIES, BY TYPE, 2016–2019 (USD MILLION)

TABLE 134 BIOMATERIALS MARKET FOR SPINE SURGERIES, BY TYPE, 2020–2025 (USD MILLION)

TABLE 135 BIOMATERIALS MARKET FOR SPINE SURGERIES, BY REGION, 2016–2019 (USD MILLION)

TABLE 136 BIOMATERIALS MARKET FOR SPINE SURGERIES, BY REGION, 2020–2025 (USD MILLION)

8.3.4.1 Spinal fusion

8.3.4.1.1 Introduction of minimally invasive spinal fusion procedures and better clinical outcomes to drive market growth

TABLE 137 BIOMATERIALS MARKET FOR SPINAL FUSION SURGERIES, BY REGION, 2016–2019 (USD MILLION)

TABLE 138 BIOMATERIALS MARKET FOR SPINAL FUSION SURGERIES, BY REGION, 2020–2025 (USD MILLION)

8.3.4.2 Minimally invasive fusion

8.3.4.2.1 Advantages such as lesser pain post surgery and faster recovery to drive the demand for minimally invasive fusion procedures

TABLE 139 BIOMATERIALS MARKET FOR MINIMALLY INVASIVE FUSION SURGERIES, BY REGION, 2016–2019 (USD MILLION)

TABLE 140 BIOMATERIALS MARKET FOR MINIMALLY INVASIVE FUSION SURGERIES, BY REGION, 2020–2025 (USD MILLION)

8.3.4.3 Motion preservation & dynamic stabilization

TABLE 141 BIOMATERIALS MARKET FOR MOTION PRESERVATION & DYNAMIC STABILIZATION SURGERIES, BY PRODUCT, 2016–2019 (USD MILLION)

TABLE 142 BIOMATERIALS MARKET FOR MOTION PRESERVATION & DYNAMIC

STABILIZATION SURGERIES, BY PRODUCT, 2020–2025 (USD MILLION)

TABLE 143 BIOMATERIALS MARKET FOR MOTION PRESERVATION & DYNAMIC STABILIZATION SURGERIES, BY REGION, 2016–2019 (USD MILLION)

TABLE 144 BIOMATERIALS MARKET FOR MOTION PRESERVATION & DYNAMIC STABILIZATION SURGERIES, BY REGION, 2020–2025 (USD MILLION)

8.3.4.3.1 Pedicle-based rod systems

8.3.4.3.1.1 Rising geriatric population will result in growth in the pedicle-based rod systems market

TABLE 145 BIOMATERIALS MARKET FOR PEDICLE-BASED ROD SYSTEMS, BY REGION, 2016–2019 (USD MILLION)

TABLE 146 BIOMATERIALS MARKET FOR PEDICLE-BASED ROD SYSTEMS, BY REGION, 2020–2025 (USD MILLION)

8.3.4.3.2 Interspinous spacers

8.3.4.3.2.1 High prevalence of degenerative spinal conditions will contribute to the growth of the interspinous spacers market

TABLE 147 BIOMATERIALS MARKET FOR INTERSPINOUS SPACERS, BY REGION, 2016–2019 (USD MILLION)

TABLE 148 BIOMATERIALS MARKET FOR INTERSPINOUS SPACERS, BY REGION, 2020–2025 (USD MILLION)

8.3.4.3.3 Artificial discs

8.3.4.3.3.1 High biocompatibility of biomaterials has led to their increased use in artificial discs

TABLE 149 BIOMATERIALS MARKET FOR ARTIFICIAL DISCS, BY REGION, 2016–2019 (USD MILLION)

TABLE 150 BIOMATERIALS MARKET FOR ARTIFICIAL DISCS, BY REGION, 2020–2025 (USD MILLION)

8.3.5 FRACTURE FIXATION DEVICES

TABLE 151 BIOMATERIALS MARKET FOR FRACTURE FIXATION DEVICES, BY TYPE, 2016–2019 (USD MILLION)

TABLE 152 BIOMATERIALS MARKET FOR FRACTURE FIXATION DEVICES, BY TYPE, 2020–2025 (USD MILLION)

TABLE 153 BIOMATERIALS MARKET FOR FRACTURE FIXATION DEVICES, BY REGION, 2016–2019 (USD MILLION)

TABLE 154 BIOMATERIALS MARKET FOR FRACTURE FIXATION DEVICES, BY REGION, 2020–2025 (USD MILLION)

8.3.5.1 Bone plates

8.3.5.1.1 Biomaterials form an integral component of bone plates due to their high biocompatibility

TABLE 155 BIOMATERIALS MARKET FOR BONE PLATES, BY REGION, 2016–2019

(USD MILLION)

TABLE 156 BIOMATERIALS MARKET FOR BONE PLATES, BY REGION, 2020–2025

(USD MILLION)

8.3.5.2 Screws

8.3.5.2.1 Screws made up of biomaterials such as stainless steel, titanium, and cobalt are extensively used in orthopedic procedures

TABLE 157 BIOMATERIALS MARKET FOR SCREWS, BY REGION, 2016–2019 (USD MILLION)

TABLE 158 BIOMATERIALS MARKET FOR SCREWS, BY REGION, 2020–2025 (USD MILLION)

8.3.5.3 Pins

8.3.5.3.1 Nonreactive metallic biomaterials such as stainless steel, titanium, and cobalt are majorly used to manufacture pins

TABLE 159 BIOMATERIALS MARKET FOR PINS, BY REGION, 2016–2019 (USD MILLION)

TABLE 160 BIOMATERIALS MARKET FOR PINS, BY REGION, 2020–2025 (USD MILLION)

8.3.5.4 Rods

8.3.5.4.1 Rods are preferred for fracture fixation procedures due to their high rigidity, easy mobility, and cost efficiency

TABLE 161 BIOMATERIALS MARKET FOR RODS, BY REGION, 2016–2019 (USD MILLION)

TABLE 162 BIOMATERIALS MARKET FOR RODS, BY REGION, 2020–2025 (USD MILLION)

8.3.5.5 Wires

8.3.5.5.1 Wires made up of metallic biomaterials are widely used to treat fractures of small bones

TABLE 163 BIOMATERIALS MARKET FOR WIRES, BY REGION, 2016–2019 (USD MILLION)

TABLE 164 BIOMATERIALS MARKET FOR WIRES, BY REGION, 2020–2025 (USD MILLION)

8.3.6 SYNTHETICS BONE GRAFTS

8.3.6.1 Growing geriatric population and increasing incidence of sports-related injuries are driving the market for synthetic bone grafts

TABLE 165 BIOMATERIALS MARKET FOR SYNTHETIC BONE GRAFTS, BY REGION, 2016–2019 (USD MILLION)

TABLE 166 BIOMATERIALS MARKET FOR SYNTHETIC BONE GRAFTS, BY REGION, 2020–2025 (USD MILLION)

8.4 OPHTHALMOLOGY

TABLE 167 BIOMATERIALS MARKET FOR OPHTHALMOLOGY APPLICATIONS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 168 BIOMATERIALS MARKET FOR OPHTHALMOLOGY APPLICATIONS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 169 BIOMATERIALS MARKET FOR OPHTHALMOLOGY APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 170 BIOMATERIALS MARKET FOR OPHTHALMOLOGY APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

8.4.1 CONTACT LENSES

8.4.1.1 High cases of refractive errors and preference for contact lenses over spectacles to drive the market for contact lenses

TABLE 171 BIOMATERIALS MARKET FOR CONTACT LENSES, BY REGION, 2016–2019 (USD MILLION)

TABLE 172 BIOMATERIALS MARKET FOR CONTACT LENSES, BY REGION, 2020–2025 (USD MILLION)

8.4.2 INTRAOCULAR LENSES

8.4.2.1 Increasing prevalence of cataracts to drive the number of cataract surgeries performed

TABLE 173 BIOMATERIALS MARKET FOR INTRAOCULAR LENSES, BY REGION, 2016–2019 (USD MILLION)

TABLE 174 BIOMATERIALS MARKET FOR INTRAOCULAR LENSES, BY REGION, 2020–2025 (USD MILLION)

8.4.3 FUNCTIONAL REPLACEMENT OF OCULAR TISSUES

8.4.3.1 Increasing funding and research activities for developing bionic eyes are driving the market for this application

TABLE 175 BIOMATERIALS MARKET FOR FUNCTIONAL REPLACEMENT OF OCULAR TISSUES, BY REGION, 2016–2019 (USD MILLION)

TABLE 176 BIOMATERIALS MARKET FOR FUNCTIONAL REPLACEMENT OF OCULAR TISSUES, BY REGION, 2020–2025 (USD MILLION)

8.4.4 SYNTHETIC CORNEAS

8.4.4.1 Growing number of corneal blindness cases worldwide to boost the demand for synthetic collagen biomaterials

TABLE 177 BIOMATERIALS MARKET FOR SYNTHETIC CORNEAS, BY REGION, 2016–2019 (USD MILLION)

TABLE 178 BIOMATERIALS MARKET FOR SYNTHETIC CORNEAS, BY REGION, 2020–2025 (USD MILLION)

8.4.5 OTHER OPHTHALMOLOGY APPLICATIONS

TABLE 179 BIOMATERIALS MARKET FOR OTHER OPHTHALMOLOGY APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 180 BIOMATERIALS MARKET FOR OTHER OPHTHALMOLOGY APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

8.5 DENTAL

TABLE 181 BIOMATERIALS MARKET FOR DENTAL APPLICATIONS, BY PRODUCT, 2016–2019 (USD MILLION)

TABLE 182 BIOMATERIALS MARKET FOR DENTAL APPLICATIONS, BY PRODUCT, 2020–2025 (USD MILLION)

TABLE 183 BIOMATERIALS MARKET FOR DENTAL APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 184 BIOMATERIALS MARKET FOR DENTAL APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

8.5.1 DENTAL IMPLANTS

8.5.1.1 Increasing awareness of dental services and improving quality of dental products are driving the growth of this market segment

TABLE 185 PERCENTAGE OF INDIVIDUALS WITH UNTREATED DENTAL CARIES IN THE US (2016)

TABLE 186 BIOMATERIALS MARKET FOR DENTAL IMPLANTS, BY REGION, 2016–2019 (USD MILLION)

TABLE 187 BIOMATERIALS MARKET FOR DENTAL IMPLANTS, BY REGION, 2020–2025 (USD MILLION)

8.5.2 DENTAL BONE GRAFTS & SUBSTITUTES

8.5.2.1 Growing demand for dental implants among people opting for cosmetic dentistry to drive market growth

TABLE 188 BIOMATERIALS MARKET FOR DENTAL BONE GRAFTS & SUBSTITUTES, BY REGION, 2016–2019 (USD MILLION)

TABLE 189 BIOMATERIALS MARKET FOR DENTAL BONE GRAFTS & SUBSTITUTES, BY REGION, 2020–2025 (USD MILLION)

8.5.3 DENTAL MEMBRANES

8.5.3.1 Dental membranes are widely used in oral and periodontal surgery to prevent unwanted infections in the oral cavity

TABLE 190 BIOMATERIALS MARKET FOR DENTAL MEMBRANES, BY REGION, 2016–2019 (USD MILLION)

TABLE 191 BIOMATERIALS MARKET FOR DENTAL MEMBRANES, BY REGION, 2020–2025 (USD MILLION)

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