Medical implant sales in the US are driven by a growing prevalence of chronic orthopedic, cardiovascular, neurological, ophthalmic, hearing loss, and various other conditions that are not responsive to pharmaceutical or less invasive surgical therapies.

Lifestyles affect sales growth
A rising incidence of injuries attributable to the expansion of sports activities, the increasing adoption of exercise-active lifestyles, and the high vulnerability of elderly individuals to falls and other accidents will broaden revenue opportunities for bone substitutes, tissue implants, and internal fixation devices employed in spinal fusion, trauma treatment, and fracture repair. Demand for the orthobiologic hyaluronic acid will advance at a fast pace based on widening use in osteoarthritis therapy and cosmetic surgery. Lastly, demand for dental implants will see sizeable gains as the prevalence of serious tooth and gum diseases in the aging population rises and the availability of affordable dental insurance improves.

Orthopedics to remain top-selling group
Orthopedic products will remain the top-selling group of medical implants, with total demand advancing over five percent annually. A combination of demographic, lifestyle, and epidemiological trends will promote growth. The aging of the population will boost the prevalence of degenerative musculoskeletal conditions often requiring reconstructive joint replacement and/or spinal surgery.

Cardiac implants will generate growth
The second-largest selling group of medical implants treats or manages various types of heart disease. Revenues generated by cardiac implants will be spread fairly evenly among three major product lines -- pacing devices, cardiac stents and related implants, and structural cardiac implants. Structural cardiac implants will generate the fastest growth in demand value due to upward trends in the prevalence of vavular heart disease and the increasing use of high value-added tissue-based replacement valves. By contrast, sales of pacing devices will grow slowly as advances in pharmaceuticals and surgical therapies eliminate the need for implants in some patients afflicted with heart rhythm disorders. Lastly, a heightened level of coronary and peripheral artery diseases will boost the market for cardiac stents and related products.

Study coverage
This study analyzes the US implantable medical device market. It presents historical demand data (2005, 2010 and 2015) plus forecasts (2020 and 2025) for orthopedic (e.g., reconstructive joint replacements, spinal implants, orthobiologics), cardiac (e.g., stents and related implants, pacing devices) and other medical implants (e.g., gastroenterologicals, urologicals, cosmetics). The study also details key market environment factors, examines the industry structure, and assesses company market share data.
Implantable Medical Devices
US Industry Study with Forecasts for 2020 & 2025
Study #3465
November 2016
$5200

CONTENTS SUMMARY

Executive Summary

Market Environment

Orthopedic Implants
Reconstructive Joint Replacements (RJRs)
Knee Replacements
Hip Replacements
Other RJRs
Shoulder Replacements
Elbow Replacements
Ankle Replacements
All Other RJRs
Spinal Implants
Thoracolumbar Implants
Cervical Implants
Intervertebral Spacers
Non-Bone Implants
Machined Allografts
Motion Preservation Devices
Implantable Spinal Stimulators
Orthobiologics
Hyaluronic Acid
Bone Substitutes
Bone Cement
Tissue Implants
Bone Growth Factors
Trauma Implants
Internal Fixation Devices
Craniomaxillofacial Implants
Implantable Trauma Stimulators
Dental Implants

Cardiac & Other Medical Implants
Pacing Devices
Implantable Cardioverter Defibrillators (ICDs)
Implantable Cardiac Pacemakers (ICPs)
Cardiac Resynchronization Therapy Devices (CRTs)
Pacing Accessories
Pacing Leads
Pacing Batteries
Cardiac Stents & Related Implants
Coronary Stents
Drug-Eluting Stents
Bare-Metal Coronary Stents
Peripheral Stents
Endovascular Stent-Grafts
Renal & Related Stents
Femoral & Related Stents
Carotid Stents
Stent-Related Implants
Synthetic Grafts
Vena Cava Filters
Structural Cardiac Implants
Heart Valves & Accessories
Tissue Heart Valves
Mechanical Heart Valves
Heart Valve Repair Devices
Ventricular-Assist Devices
Implantable Heart Monitors
Other Medical Implants
Neurological Stimulators

Drug Implants
Hormonal Implants
Brachytherapy Products
Implantable Drug Pumps
Ophthalmic Implants
Intraocular Lenses
Glaucoma & Other Lenses
Otolaryngeal Implants
Cochlear Implants
Airway & Esophageal Stents
Other Otolaryngeal Implants
Cosmetic Implants
Breast Implants
Other Cosmetic Implants
All Other Medical Implants
Gastroenterological Implants
Urological Implants
Gynecological Implants
Miscellaneous Implants

Industry Structure
Market Share
Competitive Strategies
Mergers & Acquisitions
Licensing & Other Agreements
Research & Development
Marketing & Distribution
Manufacturing

TABLES SUMMARY

Executive Summary
1 Summary Table

Orthopedic Implants
1 Orthopedic Implants Demand by Product Group
Cht Orthopedic Implants Demand by Product Group, 2015
2 Reconstructive Joint Replacements Demand by Product Group
Cht Reconstructive Joint Replacements Demand by Product Group, 2015
3 Reconstructive Knee Replacements Demand by Type
4 Reconstructive Hip Replacements Demand by Type
5 Other Reconstructive Joint Replacements Demand by Type
6 Spinal Implants Demand by Product Group
Cht Spinal Implants Demand by Product Group, 2015
7 Thoracolumbar Implants Demand
Cht Thoracolumbar Implants Demand by Product Group, 2015
8 Cervical Implants Demand
Cht Cervical Implants Demand by Product Group, 2015
9 Intervertebral Spacers Demand
Cht Intervertebral Spacers Demand by Product Group, 2015
10 Motion Preservation Devices Demand
Cht Motion Preservation Devices Demand by Product Group, 2015
11 Implantable Spinal Stimulators Demand
Cht Implantable Spinal Stimulators Demand by Product Group, 2015
12 Trauma Implants Demand
Cht Trauma Implants Demand by Product Group, 2015
13 Internal Fixation Devices Demand by Type
Cht Internal Fixation Devices Demand by Type, 2015
14 Craniomaxillofacial Implants Demand
Cht Craniomaxillofacial Implants Demand by Product Group, 2015
15 Implantable Trauma Stimulators Demand
Cht Implantable Trauma Stimulators Demand by Product Group, 2015
16 Orthobiologics Demand by Product Group
Cht Orthobiologics Demand by Product Group, 2015
17 Hyaluronic Acid Demand
18 Bone Substitutes Demand
19 Bone Cement Demand
20 Tissue Implants Demand
21 Bone Growth Factors Demand
22 Dental Implants Demand

Cardiac & Other Medical Implants
1 Cardiac Implants Demand by Product Group
Cht Cardiac Implants Demand by Product Group, 2015
2 Pacing Devices Demand by Product Group
Cht Pacing Devices Demand by Product Group, 2015
3 Implantable Cardioverter Defibrillator (ICD) Devices Demand by Type
Cht Implantable Cardioverter Defibrillator (ICD) Devices Demand by Type, 2015
4 Implantable Cardiac Pacemakers Demand by Type
Cht Implantable Cardiac Pacemakers Demand by Type, 2015
5 Cardiac Resynchronization Therapy (CRT) Devices Demand
Cht Cardiac Resynchronization Therapy (CRT) Devices Demand, 2015
6 Pacing Accessories Demand by Product Group
Cht Pacing Accessories Demand by Product Group, 2015
7 Cardiac Stents & Related Implants Demand by Product Group
Cht Cardiac Stents & Related Implants Demand by Product Group, 2015
8 Coronary Stents Demand by Product Group
Cht Coronary Stents Demand by Product Group, 2015
9 Drug-Eluting Coronary Stents Demand
Cht Drug-Eluting Coronary Stents Demand by Product Group, 2015
10 Bare Metal Coronary Stents Demand
Cht Bare Metal Coronary Stents Demand by Product Group, 2015
11 Peripheral Stents Demand by Product Group
Cht Peripheral Stents Demand by Product Group, 2015
12 Endovascular Stent-Grafts Demand
Cht Endovascular Stent-Grafts Demand by Product Group, 2015
13 Renal & Related Stents Demand
Cht Renal & Related Stents Demand by Product Group, 2015
14 Femoral & Related Stents Demand
Cht Femoral & Related Stents Demand by Product Group, 2015
15 Carotid Stents Demand
Cht Carotid Stents Demand by Product Group, 2015
16 Stent-Related Implants Demand by Product Group
Cht Stent-Related Implants Demand by Product Group, 2015
17 Synthetic Grafts Demand
Cht Synthetic Grafts Demand by Product Group, 2015
18 Vena Cava Filters Demand
Cht Vena Cava Filters Demand by Product Group, 2015
19 Structural Cardiac Implants Demand
Cht Structural Cardiac Implants Demand by Product Group, 2015
20 Heart Valves & Accessories Demand by Product Group
Cht Heart Valves & Accessories Demand by Product Group, 2015
21 Ventricular-Assist Devices Demand
Cht Ventricular-Assist Devices Demand by Product Group, 2015
22 Implantable Heart Monitors Demand
Cht Implantable Heart Monitors Demand by Product Group, 2015
23 Other Medical Implants Demand by Product Group
Cht Other Medical Implants Demand by Product Group, 2015
24 Implantable Neurological Stimulators Demand
Cht Implantable Neurological Stimulators Demand by Product Group, 2015
25 Drug Implants Demand by Type
Cht Drug Implants Demand by Type, 2015
26 Ophthalmic Implants Demand by Type
Cht Ophthalmic Implants Demand by Type, 2015
27 Otolaryngeal Implants Demand by Type
Cht Otolaryngeal Implants Demand by Type, 2015
28 Cosmetic Implants Demand by Type
Cht Cosmetic Implants Demand by Type, 2015
29 All Other Medical Implants Demand by Product Group
Cht All Other Medical Implants Demand by Product Group, 2015

Industry Structure
1 Medical Implants, US Sales by Company 2015
Cht Medical Implants Market Share by Company 2015
2 Selected Mergers & Acquisitions
Cht Selected Mergers & Acquisitions by Company 2015
3 Selected Cooperative Agreements
CARDIAC & OTHER MEDICAL IMPLANTS

Cardiac Resynchronization Therapy Devices -- US demand for cardiac resynchronization therapy devices is forecast to rise 3.7 percent annually to $1.4 billion in 2020, representing 62,300 units. Increasing use in the treatment of congestive heart failure will underlie gains. Advances in alternate therapies, such as the drugs CORLANOR (ivabradine) and ENTRESTO (sacubitril/valsartan), will hold down faster growth in demand.

The CRT-D was first approved by the FDA for US marketing in 2001. The device is a microcomputer apparatus about the size of a pocket watch. It weighs about three ounces and is implanted under the skin in the upper chest area where it monitors the heart rate. Through attached leads, CRT-Ds transmit low level electrical impulses to the heart muscle, effectively resynchronizing contractions of the ventricles. This action improves the heart’s ability to pump blood through the body and alleviates the symptoms of congestive heart failure. In the treatment and management of CHF, a CRT-D is used as a complement to drug regimens and lifestyle adjustments.

Congestive heart failure afflicts an estimated 5.7 million individuals in the US, and directly causes approximately 62,000 deaths each year. The condition is responsible for more than one million hospital admissions annually. Historically, the vast majority of patients with congestive heart failure died within eight years of its initial diagnosis. The availability of CRT-Ds is improving the effectiveness of therapy for this form of heart disease.

CRT-Ds are available in two models: a CRT pacemaker and a combination CRT pacemaker with defibrillation therapy. Both devices help to coordinate the heart’s pumping action and improve blood flow. They also speed up a heart that’s beating too slowly. The CRT pacemaker has

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TABLE IV-6

PACING ACCESSORIES DEMAND BY PRODUCT GROUP
(million dollars)

<table>
<thead>
<tr>
<th>Item</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
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<tr>
<td>Pacing Devices Demand (000)</td>
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<tr>
<td>pacing accessories/device</td>
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<tr>
<td>Pacing Accessories Demand (000 units)</td>
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<tr>
<td>Pacing Leads</td>
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<td>Pacing Batteries</td>
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<td>Pacing Leads (000$/unit)</td>
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<td>Pacing Batteries ($/unit)</td>
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<td>% pacing accessories</td>
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<td>Pacing Device Demand</td>
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Source: The Freedonia Group

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TABLE III-6

SPINAL IMPLANTS DEMAND BY PRODUCT GROUP
(million dollars)

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<thead>
<tr>
<th>Item</th>
<th>2005</th>
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<th>2020</th>
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<td>$ implants/procedure</td>
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<td>Spinal Implants Demand</td>
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<td>Thoracolumbar Implants</td>
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<td>Cervical Implants</td>
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<td>Intervertebral Spacers</td>
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<td>Motion Preservation Devices</td>
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<td>Implantable Spinal Stimulators</td>
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<td>% spinal implants</td>
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<td>Orthopedic Implants Demand</td>
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Source: The Freedonia Group

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• Assess new products & technologies
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Related Studies

**Medical & Dental Adhesives & Sealants**
Demand for medical and dental adhesives and sealants in the US is forecast to rise 5.1 percent annually to $2.1 billion in 2019, driven mainly by an aging population. Internal medical uses will remain the dominant and fastest growing application. The larger natural product segment will continue to outpace synthetic types. This study analyzes the $1.7 billion US market for medical adhesives and sealants, with forecasts for 2019 and 2024 by product, application, and market. The study also evaluates company market share and profiles industry competitors.

**Disposable Medical Supplies**
US demand for disposable medical supplies will rise 4.2 percent annually to $54.1 billion in 2020. Drug delivery products will remain the largest and fastest growing type, led by safety-enhanced devices for minimally invasive delivery of parenteral and inhalation medicines, and IV solutions. Home healthcare will remain the fastest growing market. This study analyzes the $44.1 billion US disposable medical supply industry, with forecasts for 2020 and 2025 by product and market. The study also evaluates company market share and profiles industry players.

**Dental Products & Materials**
US demand for dental products and materials will rise 3.4 percent yearly to $12.7 billion in 2019. Cosmetic and repair/restorative products will be the fastest growing professional products. Among consumer products, value-added formulations will drive the dominant toothpaste segment. Polymers, ceramics and minerals will lead gains in dental materials. This study analyzes the $10.7 billion US dental product and material industry, with forecasts for 2019 and 2024 by product and raw material. The study also details company market share and profiles key companies.

**Medical Imaging Products**
US demand for medical imaging products will rise 5.8 percent yearly to $31.9 billion in 2019. Computed tomography (CT) and magnetic resonance imaging (MRI) products will lead gains, followed by nuclear medicine products. Good prospects also exist for picture archiving and communications systems (PACS) as patient data networks are upgraded. This study analyzes the $24.1 billion US medical imaging industry, with forecasts for 2019 and 2024 by product and market. The study also evaluates company market share and profiles industry participants.

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