INDUSTRY MARKET RESEARCH FOR BUSINESS LEADERS, STRATEGISTS, DECISION MAKERS



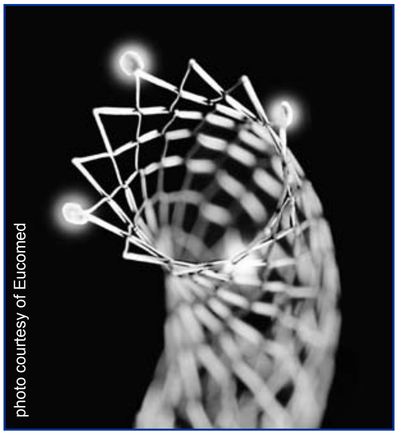
photo courtesy of Eucomed

# Implantable Medical Devices

US Industry Study with Forecasts for **2011 & 2016**


Study #2255 | October 2007 | $4500 | 374 pages



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# Implantable Medical Devices

US Industry Study with Forecasts for ***2011 & 2016***

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# Implantable Medical Devices

US Industry Study with Forecasts for ***2011 & 2016***

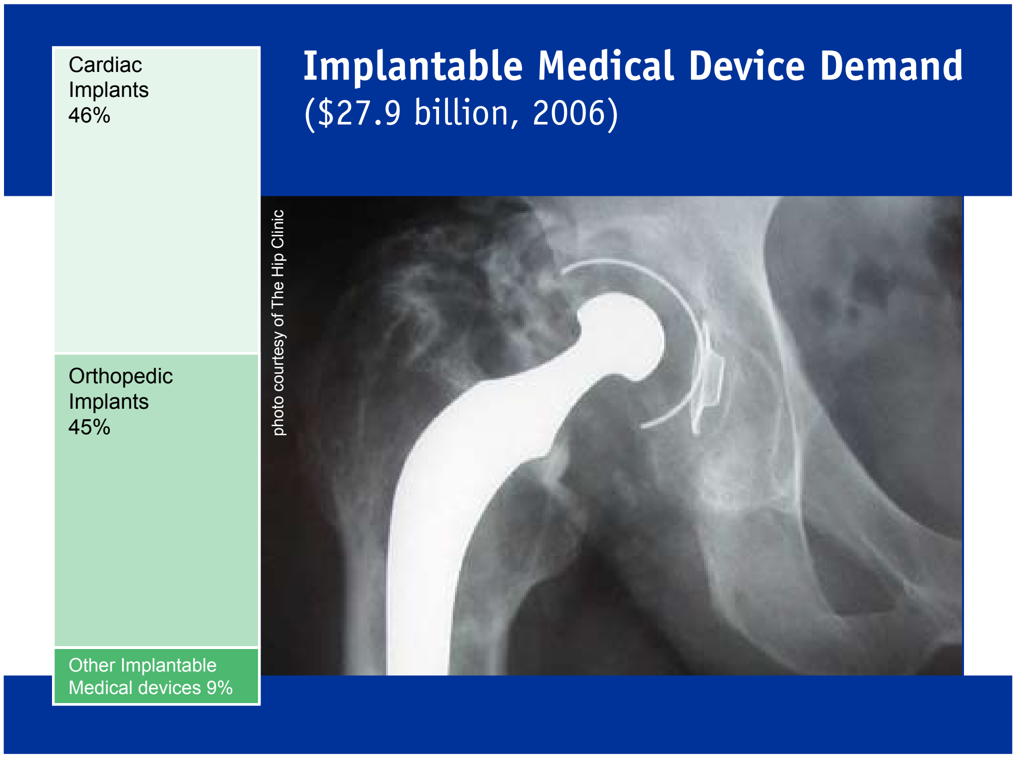


*Shortcomings in existing drug therapies will promote increasing use of implantable devices in the treatment of cardiovascular, orthopedic, neurological, ophthalmic and various other chronic disorders.*

## Cardiac implants to stay dominant category

Demand for implantable medical devices is projected to increase 9.3 percent annually to $43.6 billion in 2011. Although weakened over the past few years by product recalls and safety controversies, especially in the cardiac implant segment, growth will remain strong. Based on the prevalence and mortality risk of heart disease, cardiac implants will remain the top-selling group of implantable medical devices, with demand expanding 9.0 percent annually to $19.6 billion in 2011. Cardiac resynchronization therapy devices (CRT-Ds), carotid and drug-eluting coronary stents, endovascular stent-grafts, implantable heart monitors, and tissue heart valves will post the strongest gains. Outcome advantages over drugs in the treatment of congestive heart failure will boost the patient base for CRT-Ds.

Carotid stents will build up demand due to new, improved product introductions and effectiveness in stroke prevention. Next-generation devices composed of thinner struts will enhance the safety and performance of drug-eluting coronary stents, revitalizing their growth opportunities in the treatment of arterial blockage. Demand for endovascular stent-grafts will advance rapidly based on life-saving benefits in treating aortic aneurysms. Advantages related to the early detection of heart attack symptoms will broaden the use of implantable heart monitors among patients with serious cardiovascular disorders.




## Orthopedic, other implants to also show rapid gains

Demand for orthopedic implants is forecast to exceed $19 billion in 2011, up 8.8 percent annually from 2006. Bone cement, based on the availability of new, high value-added formulations and breadth of applications served, will record the fastest gains. Tissue and spinal implants will also post strong growth in demand as advances in fusion, fixation and neurological stimulating technologies promote their increasing use in the treatment of spinal and various other orthopedic conditions. The market for reconstructive implants and trauma fixation products will expand moderately, benefitting from the increasing prevalence of deteriorated joint conditions and fracture injuries.

Other implantable medical devices will post demand of $4.9 billion in 2011, up more than 13 percent annually from 2006. Growth will be led by implantable stimulators for neurological conditions, brachytherapy for prostate cancer indications, cochlear devices for restoring hearing loss, and gastric bands for obesity intervention. These products offer significant performance and outcome advantages over alternative treatments. Among other implantable medical devices, silicone gel-filled breast implants and dermal and tissue implants for cosmetic surgery will fare the best, reflecting widening popularity among the appearance-conscious population.

# Implantable Medical Devices

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## Sample Text, Table & Chart

**TABLE VII-1**

**OTHER IMPLANTABLE MEDICAL DEVICE DEMAND BY PRODUCT GROUP (million dollars)**

| Item | 1996 | 2001 | 2006 | 2011 | 2016 |
|---|---|---|---|---|---|
| Resident Population (million) | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| $ other implantables/capita | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Other Implantable Medical Devices | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Neurological Stimulators | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Ophthalmic Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Breast Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Drug Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Urological Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Cochlear Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Dermal Implants | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| All Other Implantables | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| % other | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| Implantable Medical Device Demand | [illegible] | [illegible] | 27900 | [illegible] | [illegible] |

SAMPLE TABLE



**ORTHOPEDIC IMPLANTS**

**Internal Spinal Fixation Devices**

Following upward trends in the number of spinal fusion demand for internal spinal fixation devices is projected to inc t 5 billion in 2011. Included in this s and nails sold individually and bstitutes to injured or deformed es are available in a variety of d s of the spine (cervical, lumbar gical approach -- anterior or poste l

SAMPLE TEXT

Most plates, rods, screws and nails used in spinal fusion are composed of titanium, titanium alloy or stainless steel. P rods serve as main connectors and are affixed to vertebrae w wires and/or screws. In less complex applications, hooks, wires or screws can be used for primary connection to bone grafts or substitutes. Internal spinal fixation products provide stability and help restore proper anatomical alignment in the surgical treatment of injuries, deformities, degenerative disk conditions, and infectious and tumor-related spinal diseases.

Contract prices of internal spinal fixation devices to hospitals and health care purchasing groups range from $200 each for basic, non-variable angle pedicle screws to over $900 for plate systems. Sets containing all devices for a specific procedure can cost $2,000 or more. Leading producers of internal spinal fixation devices for the US market include Abbott Spine, Biomet, Medtronic Sofamor Danek, DePuy Spine (Johnson & Johnson), Synthes, Stryker and Zimmer. Products are sold on the basis of price, design and ease of use.

Most producers of internal spinal fixation devices have focused on developing complete systems for both broad-based and very specific

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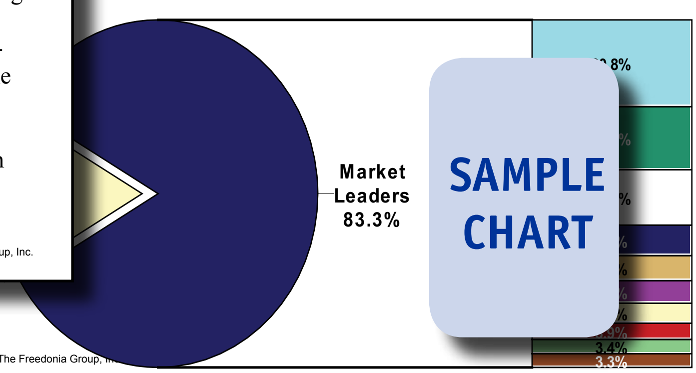
**CHART VIII-1**

**IMPLANTABLE MEDICAL DEVICE (IMD) MARKET SHARE BY COMPANY, 2006 ($27.9 billion)**




SAMPLE CHART



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# Sample Profile, Table & Forecast

**TABLE V-5**

**HEART-RELATED GRAFT DEMAND BY TYPE**
**(million dollars)**

| Item | 1996 | 2001 | 2006 | 2011 | 2016 |
|---|---|---|---|---|---|
| PAD* Conditions (million) | | | | | 9.3 |
| $ heart-related grafts/condition | | | | | 74 |
| | | | | | |
| Heart-Related Graft Demand | | | | | 50 |
| Vascular & Endovascular Grafts | | | | | 50 |
| Peripheral Grafts | | | | | 00 |
| Arterial-to-Venous Grafts | | | | | 00 |
| | | | | | |
| % heart-related grafts | 1 | | | | .8 |
| Cardiac Implant Demand | 3 | | | | 00 |

SAMPLE TABLE



## COMPANY PROFILES

**Cyberonics Incorporated**
Cyberonics Building
100 Cyberonics Boulevard
Houston, TX 77058
888-867-7846
http://www.cyberonics.com

Sales: $1
US Sales
Research ion (FY 2007)
Employ

Key Pro s

SAMPLE PROFILE

Cyb at designs, develops, produces and markets implantable neurological stimulator systems for the treatment of epilepsy, chronic depression, and other neurological disorders, psychiatric diseases and other conditions. The Company markets its products in more than 70 countries.

Cyberonics' sole operation involves the development, production and supply of its VNS Therapy System, a medical device consisting of a pulse generator, bipolar lead, programming wand and software, and a tunneling tool. The integrated system provides electrical stimulation of cranial nerves with an implantable device on a chronic, intermittent basis. The pulse generator and biopolar lead components are implanted through a minimally invasive surgical procedure, which creates a sub-cutaneous pocket in the upper left chest. One end of the bipolar lead is connected to the battery-powered pulse generator, which is similar in design and manufacture to a cardiac pacemaker. The other end consists of a helical-shaped, platinum iridium electrode, which is wrapped around the left vagus nerve in the patient's neck. A physician uses the

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"Led by endovascular stent grafts for the treatment of aortic aneurysms, demand for heart-related grafts will increase 8.8 percent annually to $1.7 billion in 2011. Endovascular stent grafts will generate rapid growth opportunities, spurred by new product introductions and a large, expanding prevalence of aneurysm conditions in the population. Many of these conditions have not been diagnosed and only about 20 percent of diagnosed cases have been treated. Demand for other heart-related grafts, including vascular, peripheral and AV types, will ..."

--Section V, pg. 126

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## Other Studies

### Medical & Dental Adhesives & Sealants

US demand for medical and dental adhesives and sealants will rise 7.6% annually through 2011, driven by continuing new product development and increasing acceptance in surgical and consumer settings. Opportunities are expected for cyanoacrylate, polyethylene glycol and various plasma and protein types. This study analyzes the US market for medical adhesives and sealants, with forecasts for 2011 and 2016 presented by product and market. It also evaluates company market share and profiles major suppliers.

*#2201 .................. 05/2007.................... $4400*

### Disposable Medical Supplies

US demand for disposable medical supplies will grow 4.9% annually through 2011. Best prospects include dry powder inhalers, prefilled syringes and transdermal patches for drug delivery; blood glucose test strips for diabetes monitoring; tissue sealants for wound closure; and daily contact lenses. This study analyzes the US disposable medical supply industry, with forecasts for 2011 and 2016 presented by product, market and raw material. It also evaluates company market share and profiles industry competitors.

*#2196 .................. 05/2007.................... $4500*

### Nanotechnology in Health Care

US demand for nanotechnology medical products will grow 17.5% annually through 2011, driven by the critical need for new or improved therapies and diagnostics. The greatest short-term impact will be in cancer and central nervous system disorders, followed by orthopedic nanoimplants. This study analyzes the $23.6 billion US nanotech medical product industry to 2011, 2016 and 2021 by material, product and application. The study also reviews product development activities and profiles major players.

*#2168 .................. 02/2007.................... $4500*

### Biocompatible Materials

US demand for biocompatible materials will grow 6.6% yearly through 2010. Synthetic polymers will remain dominant based on quality, performance and cost advantages in most applications. Ceramics will grow the fastest, driven by improved properties and processing ease. Hyaluronic acid and collagen will pace the natural polymer segment. This study analyzes the $2.7 billion US biocompatible industry to 2010 and 2015 by material and application. It also evaluates market share and profiles major players.

*#2111 .................. 09/2006.................... $4400*

### Cosmetic Surgery Products

US demand for cosmetic surgery products will grow 9.1% annually through 2010, driven by an obsession with youth coupled with an aging population and greater product availability. Nonsurgical markets (e.g., injections, dermal resurfacing, micro-dermabrasion) will lead gains based on consumer preferences for less invasive treatments. This study analyzes the $1.6 billion US cosmetic surgery product industry to 2010 and 2015 by material, product and procedure. It also evaluates market share and profiles major players.

*#2099 .................. 09/2006.................... $4300*

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