Orthopedics Overview
December 2017

Sujan Rajbhandary, CFA
sujanr@mercercapital.com

Atticus Frank
franka@mercercapital.com

www.mercercapital.com
Mercer Capital’s Orthopedics Overview

The worldwide market for orthopedic products in 2016 was estimated to be nearly $48.2 billion, an increase of 3.2% from 2015. Demographics will continue to be a key driver of industry expansion, with population growth and rapidly-growing international markets driving the need for musculoskeletal care. Increasing life spans, the increasing prevalence to remain active, and increasing obesity rates will impact the number of individuals with joints subject to degeneration, thereby increasing demand for orthopedic / joint replacement procedures.

Subspecialties

Orthopedic devices are commonly divided into several primary sectors that correspond to the major subspecialties within the orthopedic field. These subspecialties include:

- Large Joints
- Spine
- Arthroscopy/ Soft Tissue Repair
- Orthobiologics
- Extremity
- Trauma

Ortho Subspecialties
Mercer Capital’s Orthopedics Overview

> **Large Joints**: Implants, instruments, and surgical assistance systems to replace or revise failed knee and hip joints. Generally dominated by large medical device players (Zimmer, Stryker, J&J, Smith & Nephew).

> **Spine**: Implants and instruments and surgical assistance systems used in the treatment of degenerative disc disease, herniated discs, scoliosis, vertebral fractures, or other spinal conditions. Devices used include pedicle screws, plates, rods, interbody cages, artificial discs. Medtronic and J&J are market leaders, with other smaller players (Nuvasive, Globus Medical) controlling sizable share.

> **Trauma**: Implants and instruments for internal and external use (plates, screws, nails, pins, wires, staples, external fixators). May be referred to as fracture repair. Market led by large incumbents, some smaller players focusing on extremities.

> **Arthroscopy/Soft Tissue Repair**: Arthroscopy devices include arthroscopic visualization products, fluid management systems, manual instruments, and powered instruments, while soft tissue repair includes devices utilized in cruciate ligament, hip, meniscus, and shoulder fixation. Also referred to as “Sports Medicine.” Arthrex and Smith & Nephew have over 50% market share, with J&J and Stryker also controlling a large portion of the total market.

> **Orthobiologics**: Biologic products such as allograft tissue, synthetic bone grafts, autologous platelet/plasma systems, and cell-based repair systems. Products utilized in other orthopedic segment settings. Low market concentration relative to other orthopedic segments.

> **Extremity**: Implants, instruments, and surgical assistance systems to replace or revise failed joints in the shoulder, elbow, wrist, ankle and digits. Market led by both large incumbents and small niche players, such as Wright Medical, Exactech, and Orthofix.
Product Segmentation

Knee, hip, and spine represent the largest medical device segment based on total revenue. These segments are generally controlled by larger, diversified industry participants who are able to leverage their size and efficiencies to capture market share at relatively lower costs. The remaining segments, particularly biologics, arthroscopy, and extremities are smaller pieces of the total market but represent growth opportunities for both small niche players and larger device manufacturers.

Major Companies & Market Shares

Five multi-national companies currently dominate the orthopedic industry, each with approximately $2 billion or more in annual sales and combined revenue of nearly $29 billion (59% total share). This represents a slight decline over the last several years, falling from 61% total market share in 2015 and 63% in 2014.
Stay Updated on How Current Events Are Affecting Value in the Medical Device Industry

Value Focus: Medical Device Industry Newsletter

Mercer Capital’s healthcare industry team produces a complimentary quarterly newsletter. Each contains an industry market overview, a review of recent transactions, and tracks multiples by industry sector. To view the current issue and the archives or to subscribe to receive the quarterly newsletter, visit https://mer.cr/meddev-nl.
Global Trends

The worldwide orthopedics market is expected to grow at an annualized rate of 4.0% between 2016 and 2022, slower than the average growth expected for the medical device industry overall (5.1%). Certain challenges are expected to weigh on the orthopedic device market over the next several years. Increased competition between manufacturers for market share in a mature market will continue to put downward pressure on prices, along with new reimbursement regimes in the U.S. and in Europe.¹

Worldwide MedTech Sales: 2016 - 2022 GAGR (%)

Source: EvaluateMedTech World Preview 2017, Outlook to 2022
Mercer Capital Analysis

¹ Growth estimated per “EvaluateMedTech” utilizes sales data differing from total sales data cited previously. Growth rates utilized for perspective.
While overall orthopedic growth is projected to grow slower than other device segments, certain areas within orthopedics are expected to outperform over the next several years. The maturing hip (2.3%), spine (2.0%), and knee (3.7%) markets saw slower growth in 2016, while the extremities (8.0%) and arthroscopy / soft tissue segments (5.6%) realized more robust sales growth over the year. Momentum in these niche segments is expected to continue over the next several years as manufacturers look to diversify into these underserved and untapped device markets.

Orthopedics YOY % Growth: 2015-16

Source: ORTHOWORLD, Mercer Capital Analysis
Mercer Capital provides strategic, financial, and valuation insights to start-ups, larger public and private companies, and private equity and venture capital funds.

Mercer Capital’s expertise in the medical device industry spans the following segments:

- Cardiovascular
- Orthopedic & Spinal
- Biologics
- Dental
- Diagnostics Equipment

Our services include:

- Purchase price allocations
- Impairment testing
- Portfolio valuation for LP reporting
- Transaction and valuation advisory
- Equity compensation valuation for 409a compliance

Contact a Mercer Capital professional to discuss your needs in confidence.

Sujan Rajbhandary, CFA
901.322.9749
sujanj@mercercapital.com

Travis W. Harms, CFA, CPA/ABV
901.322.9760
harmst@mercercapital.com

Atticus L. Frank
901.322.9754
franka@mercercapital.com

MERCER CAPITAL
Memphis
5100 Poplar Avenue, Suite 2600
Memphis, Tennessee 38137
901.685.2120
www.mercercapital.com

Dallas
12201 Merit Drive, Suite 480
Dallas, Texas 75251
214.468.8400

Nashville
102 Woodmont Blvd., Suite 231
Nashville, Tennessee 37205
615.345.0350

Contact Us
Mercer Capital
Memphis | Dallas | Nashville

1.800.769.0967
www.mercercapital.com