

## China Orthopedic Medical Device Industry

China Med Device, LLC, headquartered in Boston, MA, recently reviewed the China orthopedic surgery device market for a U.S. [medtech company](#) with an innovative discectomy device. Below is a high level glimpse about the China orthopedic device market. For more in-depth analysis and data, please email us at [info@chinameddevice.com](mailto:info@chinameddevice.com).

**China orthopedic device market will continue to enjoy its more than 20%** annual growth rate. Large strategic, multinational or domestic companies in China have been and continue to make significant investment in the orthopedic device market in partnership, equity investment, and acquisition. More than 50 manufacturers in China have or are going through consolidation.

In the joint device segment, the number of joint surgeries is significantly lower in China than that in the United States. The number of the U.S. orthopedic annual joint surgeries is more than whereas the number in China is only 400,000. The U.S. population is only one fifth of the population in China. China has more than 1.4 billion people.

In the spinal orthopedic segment, there are more than 200M related patients. 45% lumbar disk herniation are civil servants. But only 146,000 spine related surgeries projected in 2020. It suggests a huge underserved market.

Our client has identified an unmet clinical need with a prosthetic approach. It is through partial annulus replacement, particularly in optimizing discectomy outcomes in high-risk patients to prevent reherniation and preserve disc. With more than 5 years of clinical experience and over 3,000 implantations worldwide, the innovative device is trending to be a safe and effective treatment to prevent reherniation in patients at highest risk. It has proven its superiority with its pivotal study.

The current gold standard of treatment in China is fusion. The alternative suture interventional result is not satisfactory and has not been adopted widely inside China.

The Chinese culture is to avoid surgery whenever possible. 85% patients delay their interventional treatments in China. Discectomy is a common surgery in the United States and well-accepted by patients and doctors. However, Chinese patients first result to alternative non-invasive treatments. In addition to Chinese patients' surgery-phobia, other social and economic factors contribute to the lower number of surgery adoption to address their pain and suffering. 1% patients are permanently paralyzed. Age 25 to 55 group have the highest occurrences. In outpatient visits, about 20%-30% patients are related to waist and leg pains. Herniated disk related patients are about 18%. The more

than 40 years old group have 20% to 35%. The data is according to China MOH 2014 and a clinical study.

## 1. Global spinal fusion and non-fusion market:

- a. \$6.3B/2020 (United States, France, Germany, Italy, Spain, United Kingdom, Japan, Brazil, India and China)
- b. spinal fusion: \$4.7 billion/2013 to \$6.9 billion/2020 across 10 major regions covered, a compound annual growth rate of 5.58 percent.
- c. non-spinal fusion: \$1.6 billion triple in size by 2020, Millennium Research Group

## 2. China Spine surgery market:

- a. China Procedures: number of spinal surgical procedures more than tripling from approximately 46,000 in 2013 to an estimated 146,000 in 2020.
- b. Value of spinal fusion: \$226 million in 2013 to \$665 million by 2020, a compound annual growth rate (CAGR) of 16.66 per cent, making it the fastest growing spinal fusion market in the world. Global Data.

## 3. China Orthopedic Industry activities:

- a. China Association for Medical Devices data, China orthopedic devices market compound growth rate of 20.7% consisting of orthopedic trauma (38%), spine (25%) and joint orthopedic (20%). In 2011, >50 manufacturers with annual sales >\$15M USD. The top 10 have been acquired or invested by foreign capital.
- b. Medtronic Spine & Biologics, 32% (APAC) spinal surgery market acquired China Kanghui Holdings for \$816 million in 2012. Other top multinational companies followed the suite, Smith & Nephew and Zimmer etc. China Microport acquired Wright in 2013.
- c. Blackstone \$100M investment in Suzhou Xinrong in 2014
- d. Jing hua acquired shares of WASTON MEDICAL in Changzhou è20% ownership, 4/2016.