



# Global orthopedic surgical robotic device market



Clarivate

## Global orthopedic surgical robotic device market snapshot

**\$2.8B**

2023 global market revenue

**14.8%**

CAGR ('19-'33)

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### What's trending?



Approvals for new systems and expanded indications

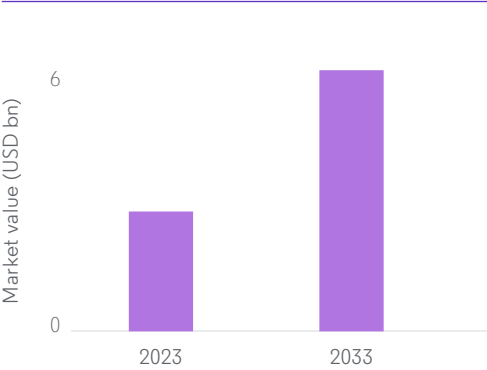
- The approval of new systems and expanded indications is fueling growth of the treatable population for orthopedic robotic systems.
  - Several large orthopedic players and smaller companies have launched products and complementary technologies in the past year, driving awareness of the benefits of robotic systems.
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Financing options and partnerships are supporting robotics penetration

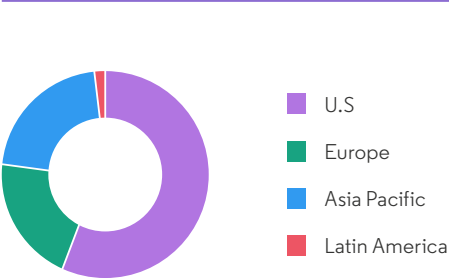
- Favorable financing schemes and rentals have allowed facilities with limited funds to adopt robotic systems, increasing penetration.
- Multiple partnerships have also been formed between companies to develop, distribute, market, and commercialize robotic systems.

**Figure 1: Global orthopedic surgical robotic device market.**



- Long-term growth of the surgical orthopedic robotic device market, including systems used in large-joint replacement and spinal fusion, will be driven by the emergence and uptake of novel technologies.
- Demand will be influenced by several factors, including the shift toward procedures performed in ambulatory surgery centers, positive clinical trial outcomes, expansion into new indications, and increased regional adoption.

**Figure 2: Proportion of revenues by region, 2023.**



- The US will remain the most lucrative market globally due to high volumes of large-joint replacements and spinal fusions, as well as the establishment of robotic centers of excellence that facilitate surgeon training in robotic technology.
- In markets like China and India, robotic device use is rising but limited to urban hospitals that can afford the technology and where surgeon training is available.



Figure 3: 2023 global orthopedic surgical robotic device revenue shares.

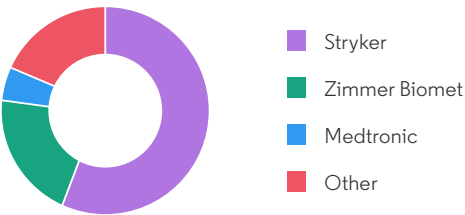
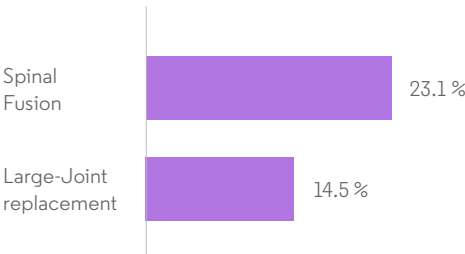


Table 1: 2023 global market share rankings by procedure type.

Position	Large-joint replacement	Spinal fusion
1st	Stryker	Medtronic
2nd	Zimmer Biomet	Globus Medical
3rd	THINK Surgical	TINAVI Medical Technologies

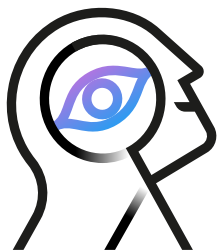
- Competition is becoming more intense as new robotic systems and expanded indications emerge.
- Beyond some of the major orthopedic leaders, smaller competitors with innovative technologies are also gaining a presence.
- Partnerships, mergers, and acquisitions will likely remain common in this space going forward.

Figure 4: Orthopedic surgical robotic procedure CAGR ('19-'33).



Procedure trends

- Growth will be rapid in both orthopedic surgical robotic segments, but surgical robotic procedure volumes will grow more quickly in the spinal fusion space.
- Positive clinical results will continue to drive adoption of robotic-assisted spinal fusions.
- Spinal fusion robotic systems are also gaining traction in the Asia Pacific region, with local Chinese companies launching lower-cost systems.



## What's next?

### Rise of manufacturer ecosystems

Companies are establishing ecosystems that include robotic and navigation systems, digital services including analytics using AI, and compatible implants. Ecosystems create cross-selling opportunities and help manufacturers retain customers in the long-term.

### Miniaturization of robotic systems

Manufacturers are reducing the footprint of their robotic systems to better accommodate requirements of operating rooms, especially in outpatient settings.

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