

# Demand for Smart Orthopedic Implants Market is forecasted to reach a value of US \$31.77 billion by 2029

*The Business Research Company's Smart Orthopedic Implants Global Market Report 2025 – Market Size, Trends, And Forecast 2025-2034*

LONDON, GREATER LONDON, UNITED KINGDOM, August 22, 2025

/EINPresswire.com/ -- How Large Will The [Smart Orthopedic Implants Market Be By 2025?](#)

The logo for The Business Research Company, featuring the company name in a serif font and a stylized bar chart with three bars of increasing height to the right.

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Tactical Headset Global Market Report 2024 – Market Size, Trends, And Global Forecast 2024-2033

The market for smart orthopedic implants has demonstrated robust growth in the past few years. The size of this market is predicted to elevate from \$24.57 billion in 2024 to \$25.92 billion in 2025, yielding a compound annual growth rate (CAGR) of 5.5%. The surge in growth during this historic period is a result of several factors, including the escalating incidence of musculoskeletal



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disorders, an increase in the aging population, a heightened demand for less intrusive surgical procedures, advancements in the techniques used in orthopedic surgery, and the pioneer adoption by advanced healthcare systems.

Predictions suggest robust expansion for the smart orthopedic implants market in the near future, with an estimated valuation of \$31.77 billion by 2029, demonstrating a compound annual growth rate (CAGR) of 5.2%. This forecasted growth can be credited to several

factors, such as the broadening scope of remote patient supervision, surging need for tailor-made orthopedic care, rising integration in newly industrialized economies, growing incidents of injuries related to sports, and an increasing emphasis on monitoring post-surgery outcomes. The prediction period also sees certain significant trends including advancements in materials used for implants, ongoing innovation in the miniaturization of sensors, escalating collaborations in research and development, blending of telehealth into implant platforms, and the advent of cloud-based ecosystems for implant data.

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### What Are The Major Driving Forces Influencing The [Smart Orthopedic Implants Market Landscape?](#)

The rise in musculoskeletal disorders is anticipated to fuel the expansion of the smart orthopedic implants market. Such disorders are conditions that affect the bones, muscles, joints, tendons, and ligaments, often resulting in long-standing pain and restricted mobility. The increasing occurrence of these disorders is attributed to sedentary lifestyles, which accelerate muscle wasting and joint strain due to the proliferation of remote work and screen-oriented leisure activities. Smart orthopedic implants serve patients with these disorders by providing immediate biomechanical feedback and preliminary warning signals, consequently enhancing postoperative care and minimizing the possibility of follow-up surgery. For example, the Australian Institute of Health and Welfare reported in June 2024 that approximately 7.3 million individuals in Australia, representing 29% of the population, were estimated to be afflicted with enduring musculoskeletal conditions. Moreover, in 2022, these conditions were recognized as the root or related cause of 10,446 fatalities, equating to 40 deaths per 100,000 individuals. This number accounted for 5.5% of all fatalities that year. Hence, the escalating prevalence of musculoskeletal disorders is providing impetus to the growth of the smart orthopedic implants market.

### Who Are The Top Players In The Smart Orthopedic Implants Market?

Major players in the Smart Orthopedic Implants Global Market Report 2025 include:

- Johnson & Johnson
- Medtronic plc
- Medline Industries LP
- Stryker Corporation
- Zimmer Biomet Holdings Inc.
- Enovis Corporation
- Orthofix Medical Inc.
- Exactech Inc.
- GPC Medical Ltd.
- Xenco Medical LLC

### What Are The Key Trends Shaping The Smart Orthopedic Implants Industry?

Dominant players in the smart orthopedic implants marketplace are concentrating their efforts on establishing strategic alliances to broaden their worldwide footprint in providing cutting-edge patient care solutions. Strategic partnerships are structured entertainments between multiple organizations with the objective of leveraging their combined strengths to achieve shared long-term goals. These partnerships enable them to pool resources, knowledge, and innovativeness while maintaining their independence. For example, in June 2025, NanoHive Medical LLC, an American 3D-printed spinal implant firm, joined forces with DirectSync Surgical, an American

human-powered smart implant manufacturer, to create Hive Soft Titanium spinal interbody fusion, a futuristic spinal implant. The purpose of this cooperation is to incorporate bone-encouraging and remote monitoring sensor technology into NanoHive's proprietary 3D-printed spinal fusion apparatuses, utilizing their distinctive rhombic dodecahedron lattice to optimally transfer energy from the piezoelectric sensors. This represents a major step forward in improving patient care by enhancing data gathering, bone stimulation, and interoperability with advanced surgical technologies and artificial intelligence.

Market Share And Forecast By Segment In The Global Smart Orthopedic Implants Market  
The smart orthopedic implants market covered in this report is segmented –

- 1) By Type Of Implant: Smart Knee Implants, Smart Hip Implants, Smart Spine Implants, Smart Shoulder Implants, Smart Ankle Implants
- 2) By Material: Ceramic Implants, Metallic Implants, Polymeric Implants
- 3) By Technology Integration: Data Analytics And Artificial Intelligence Integration, Microelectronic Sensors, Telemedicine Capabilities, Wearable Technology
- 4) By Application: Fracture Fixation, Joint Replacement, Osteotomy, Spinal Fusion
- 5) By End-Use: Ambulatory Surgical Centers, Hospitals, Specialty Clinics, Other End-Uses

Subsegments:

- 1) By Smart Knee Implants: Total Knee Replacement, Partial Knee Replacement, Unicompartmental Knee Implants, Revision Knee Implants
- 2) By Smart Hip Implants: Total Hip Replacement, Partial Hip Replacement, Hip Resurfacing Implants, Revision Hip Implants
- 3) By Smart Spine Implants: Cervical Spine Implants, Thoracolumbar Spine Implants, Interbody Fusion Devices, Pedicle Screw Systems
- 4) By Smart Shoulder Implants: Total Shoulder Replacement, Reverse Shoulder Replacement, Partial Shoulder Replacement, Revision Shoulder Implants
- 5) By Smart Ankle Implants: Total Ankle Replacement, Ankle Fusion Implants, Revision Ankle Implants, Ankle Fracture Fixation Devices

View the full smart orthopedic implants market report:

<https://www.thebusinessresearchcompany.com/report/smart-orthopedic-implants-global-market-report>

Smart Orthopedic Implants Market Regional Insights

In 2024, North America held the most significant share in the global smart orthopedic implants market. However, Asia-Pacific is predicted to witness the highest growth rate in the coming times. The regions analyzed for this particular market include Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa.

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