Joint Reconstruction Devices - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-09-01 | 110 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

Joint Reconstruction Devices Market Analysis

The joint reconstruction devices market size reached USD 24.59 billion in 2025 and is forecast to advance to USD 31.40 billion by 2030, reflecting a steady 5.01% CAGR. This trajectory signals a shift from procedure-volume growth toward value-based differentiation, as manufacturers compete on technological depth and clinical evidence instead of unit counts. Wider life expectancy and a mounting global burden of osteoarthritis underpin reliable demand, yet tightening payer budgets require every new system to show measurable outcome gains that justify its price. Robotics?assisted navigation, AI-guided planning, and patient-specific implants are no longer niche extras; they are becoming critical purchasing criteria as hospitals and ambulatory centers race to reduce length of stay, cut revision rates, and document faster rehabilitation. Parallel supply-chain localization efforts in titanium and cobalt alloys aim to stabilize raw-material risk, while cybersecurity safeguards move to the foreground as smart implants begin to collect and transmit patient data in real time. Competitive advantage therefore hinges on a harmonized hardware-software ecosystem that integrates imaging, surgical robotics, and postoperative analytics into one defensible platform.

Global Joint Reconstruction Devices Market Trends and Insights

Growing Prevalence of Orthopedic Diseases

Osteoarthritis already affected 607 million people worldwide in 2021, and epidemiologists expect the curve to steepen well beyond 2050 as sedentary lifestyles and obesity accelerate cartilage wear. The disease hits women harder than men and

multiplies with age, turning joint degeneration into a looming public-health expense. Conventional conservative therapies can delay but seldom avert advanced deterioration, so surgeons are recommending earlier reconstruction to sustain mobility and lessen lifetime disability. As implant longevity improves, payers have started approving surgery at younger ages, signaling a pivot from reactive to proactive joint preservation.

Increasing Aging Population

In the United States alone, annual primary knee replacements could top 2.60 million by 2060, underscoring how demographic swell drives procedural demand. More than half of hip and knee arthroplasties are forecast to be performed on patients under 65 within the next five years, a shift that forces designers to enhance fatigue strength for decades of post-operative activity. The trend creates a durable growth engine for the joint reconstruction devices market, as longevity converges with higher expectations for an active lifestyle.

Stringent & Evolving Regulatory Scrutiny on Implant Safety

The FDA's 2024 Class 2 recall of the MISHA Knee System over fracture risk signals more watchful post-market oversight. Europe's Medical Device Regulation compounds the evidence burden, mandating continuous performance data and metal-ion surveillance. Although cobalt and chromium readings have remained below toxic thresholds up to 18 years post-implant, manufacturers must now finance extended registries and field-data capture that lengthen development pipelines. Smaller innovators feel the strain, and large incumbents face timetable uncertainty that can delay next-generation launches.

Other drivers and restraints analyzed in the detailed report include:

Emergence of Outpatient & ASC Joint-Replacement Programs / High Procedure & Implant Costs vs. Reimbursement Caps /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Joint Replacement Devices accounted for 52.34% of 2024 sales, underscoring their anchor status in the joint reconstruction devices market. The category's revenue is projected to rise in parallel with a 7.65% CAGR segment led by high-growth osteotomy and robotic-ready systems. Surgeons increasingly combine intra-articular sensors with conventional hardware to capture real-time alignment data, a shift that shortens post-operative imaging and refines rehabilitation protocols. Osteotomy platforms target younger cohorts who seek to defer full replacement, and arthroscopy kits capitalise on minimal-access trends that accelerate return to sport. Arthrodesis and resurfacing remain niche but vital for complex deformities, often serving as salvage options when bone stock is inadequate for modular implants.

The fastest-rising contenders bundle AI-driven planning software with physical instrumentation, moving decision-making from the operating theatre's experience gradient to statistically grounded probability models. Zimmer Biomet's OrthoGrid Hip AI, for instance, achieved 95% component-position accuracy, proving that software precision can become a pivotal selling point. As reimbursement pivots to outcomes, differentiation now depends on demonstrable, data-validated performance metrics rather than incremental hardware tweaks. The joint reconstruction devices market therefore rewards integrated toolsets that streamline pre-op imaging, intra-op guidance, and post-op analytics in one subscription model.

Knee systems held 45.45% of global turnover in 2024, a testament to decades of procedural standardisation and long prosthesis life. Yet shoulder reconstruction exhibits the briskest 8.01% CAGR, fuelled by aging yet active demographics who refuse motion

loss. Improved rotator-cuff repair techniques and reverse shoulder arthroplasty broaden indications, while the first robotic-assisted shoulder replacement using ROSA technology confirmed feasibility for complex geometry. Hip devices tick upward at a measured pace, sustained by population aging rather than step-change technology, whereas ankle, wrist, and elbow solutions capture attention through patient-specific 3-D printing that handles irregular bone stock.

Anatomical complexity pushes manufacturers to abandon one-size-fits-all paradigms and design geometry tuned to each joint's kinematics. The joint reconstruction devices market size for shoulders is expected to surpass USD 5 billion by 2030, and strong clinician advocacy will likely reinforce its growth. For knees, ongoing advances in ultracongruent inserts and sensor-based balancing aim to curb lingering revision triggers such as instability and mal-alignment. Hip developers focus on dual-mobility cups and ceramic heads to minimise dislocation while retaining low wear. Collectively, the industry's ability to tailor solutions joint-by-joint will remain the central lever for sustained expansion.

The Joint Reconstruction Devices Market Report is Segmented by Device Type (Joint Replacement Devices, and More), Joint Type (Knee, Hip, and More), Biomaterial (Metallic Alloys, and More), Fixation Type (Cementless, and More), End User (Hospitals, and More), Geography (North America, Europe, Asia-Pacific, The Middle East and Africa, and South America). The Market Forecasts are Provided in Terms of Value (USD).

Geography Analysis

North America generated 42.45% of global revenue in 2024 as leading institutions adopted robotics early and reimbursement systems financed innovation. Same-day discharge protocols for knee and hip replacements exceeded 30% across major centers, transforming bed-management strategies and catalysing demand for portable navigation carts and single-use instrumentation. Yet CMS payment cuts and stringent value-based benchmarks are compressing margins, compelling providers to scrutinise total episode cost. Manufacturers must therefore bundle analytics dashboards that validate outcome claims in order to maintain premium pricing.

Asia-Pacific is the clear velocity leader, expanding at a 6.78% CAGR through 2030 on the back of rising life expectancy, lifestyle disease incidence, and government-led investments in surgical capacity. Domestic champions in China, South Korea, and India win contracts through price-competitive yet technologically advanced offerings that align with localisation mandates. Regulatory harmonisation with ISO and FDA standards has shortened clearance timelines, inviting multinationals to establish joint ventures and local 3-D printing hubs. As procedural volumes rise, surgeon preference is migrating from basic cemented implants to computer-assisted navigation and robotic guidance. The joint reconstruction devices market in Asia-Pacific thus transitions rapidly from access-first to sophistication-first.

Europe posts balanced growth underpinned by universal coverage and high clinical standards. Implementation of the Medical Device Regulation tightens evidence thresholds, raising compliance costs but arguably lifting public confidence in next-generation implants. Demand is buoyed by an aging demographic similar to North America, yet procurement committees exert stiffer price discipline, rewarding suppliers that document lower revision rates and faster rehabilitation. Meanwhile, emerging economies in the Middle East, Africa, and South America pursue hospital modernisation projects that attract donations and private-equity backing for orthopaedic infrastructure. These regions seek modular, cost-sensitive systems that can later upgrade to advanced navigation as surgeon training matures.

List of Companies Covered in this Report:

Zimmer Biomet / Stryker / Johnson?&?Johnson / Smith + Nephew plc / B. Braun (Aesculap) / Medtronic / NuVasive / Wright

Medical Group / Conmed / Arthrex / Integra LifeSciences Holdings Corp. / Globus Medical / MicroPort Scientific Corp. / DJO Global / Exactech / Conformis Inc. / AAP Implantate / Allegra Orthopaedics Ltd. / ATEC Spine / MicroPort Orthopedics / Orthofix /

Additional Benefits:

 The market estimate (ME) sheet in Excel format /
3 months of analyst support /

Table of Contents:

Joint Reconstruction Devices - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-09-01 | 110 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-02-27
		Signature