Sports Exoskeleton Market Growth Driven by Wearable Robotics in Performance & Injury Prevention | DataM Intelligence

Sports Exoskeleton Market to 2035: DataM Intelligence Sees Rapid Uptake in the U.S. and Japan on the Back of Elite Training & Rehab Use-Cases

CALIFORNIA, CA, UNITED STATES, September 12, 2025 / EINPresswire.com/ -- DataM Intelligence projects the global [Sports Exoskeleton Market](#) to expand from USD 56.26 million in 2024 to USD 253.42 million by 2033 (CAGR 18.5%), propelled by athlete rehab programs, performance training, and lightweight AI-assisted wearables.

Sports Exoskeleton Market

Sports exoskeletons are wearable devices designed to augment physical performance, assist recovery, and prevent injuries in athletes by providing external mechanical support primarily to the lower body. They combine biomechanics, robotics, and ergonomic design to enhance strength, endurance, and mobility. Recent technological advances in materials, motors, and control systems are improving their effectiveness and accessibility

> "Sports exoskeletons advance from demos to real impact speeding recovery, easing joint load, and enhancing training. The U.S. leads rehab, while Japan drives athlete-focused adoption."
>
> *DataM Intelligence Lead Analyst*

Headline Numbers (with U.S. & Japan focus)

• Global: USD 56.26M (2024) ⇨ USD 253.42M (2033); CAGR 18.5%.
• United States (DataM estimate): USD 18–20M (2024); projected USD 65–75M by 2030 as collegiate/pro and payor-backed rehab programs scale.

• Japan (DataM estimate): USD 7–9M (2024); projected USD 25–30M by 2030, supported by

government-industry pilots and athlete-centric neuro-training programs.

Segment Insights

By Type: Lower body exoskeletons dominate the market due to their broad applications in walking, running, and rehabilitation.
By Mobility: Wearable/mobile exoskeletons are preferred for dynamic sports activities.
By Applications: Primarily rehabilitation, performance training, and injury prevention support.

What's Driving Adoption

• Elite rehab & return-to-play: U.S. reimbursement tailwinds and device launches are expanding clinical availability for athlete rehabilitation. Lifeward (ReWalk) received CE Mark for ReWalk 7 (Sept. 2025), after its U.S. launch in April 2025 evidence of accelerating regulatory momentum.
• Athlete neuro-training in Japan: Cyberdyne's Neuro HAL Plus program currently available only in Japan—targets athletes' brain-nerve function to optimize contraction/relaxation timing. This keeps Japan a hotbed for performance-focused deployments.
• Lightweight outdoor & sports use: New hiking/ski and hip-assist devices (e.g., DNSYS and Hypershell) are building consumer awareness and cross-training use.

Market Players:

The global market players in the sports exoskeleton market include Össur, Onerzia, Cyberdyne Care Robotics GmbH, MOBILIS, Invent Medical, Ski-Mojo, Shenzhen Kenqing Technology Co., Ltd, Dnsys, Hypershell, and Laevo B.V., among others.

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Key Developments
• U.S. reimbursement milestone (August–September 2025): Lifeward reported record placements for Medicare beneficiaries in Q2 and first Medicare Advantage payment for ReWalk 7 claims shortening approval timelines to 30–60 days. This strengthens the rehab business case for athletes treated in U.S. outpatient settings.
• Japan consumer/athlete engagement (Aug. 29, 2025): At Expo 2025 Osaka, Tsubakimoto Chain reported 40,000+ public trials of its "T's Exoskeleton (Body Enhancement Suit)," highlighting mainstream acceptance and trialability key for sports/fitness crossover.
• Japan outdoor & performance demos (June–July 2025): Hypershell showcased its exoskeletons at the Tokyo Outdoor Show 2025 (June 27–29), further signaling Japan's consumer-sports adoption curve.

• Hiking/fitness momentum (June 2025, U.S.): On National Trails Day, Hypershell donated 30 exoskeletons to the American Hiking Society for volunteer trail work elevating visibility and field validation.
• Broader ecosystem news (July–Aug 2025): Ekso Bionics reported Q2 2025 results and education initiatives for PTs (U.S.), while Exoskeleton Report covered DNSYS plans to bring affordable hip-assist systems to hikers, signaling wider recreational sports penetration.

Note: While not strictly "sports," adjacent neuro-rehab and mobility developments directly influence adoption pathways in athlete rehab and conditioning.

Competitive & Technology Context

• U.S.: Momentum centers on medical-sports continuum FDA/CE-cleared lower-limb systems, clinic partnerships, and payer pilots (e.g., Lifeward).
• Japan: Leadership in athlete neuro-training (Cyberdyne) and public demos (Expo 2025 Osaka) fosters cultural acceptance and coach/physio interest.
• Outdoor/consumer sports: Hip/knee-assist concepts (DNSYS, Hypershell) and ski exoskeletons continue to validate endurance benefits, potentially feeding into cross-training for traditional sports.

Outlook to 2035 (DataM Intelligence)

• Market size: On track to exceed USD 300M shortly after 2033 as device prices fall and software improves. (Global baseline: USD 253.42M by 2033.)
• United States: Fastest near-term growth on the back of reimbursement clarity, collegiate/pro team uptake, and clinic-to-field protocols (return-to-play).
• Japan: Strong performance-training thesis; more public pilots and sports-science collaborations expected (e.g., universities, national teams).

Methodology & Sourcing

Global market sizing and CAGR are from DataM Intelligence's "Global Sports Exoskeleton Market (2025–2033)"; U.S. and Japan splits are DataM Intelligence 2025 estimates triangulated with recent regulatory, demo, and reimbursement signals.

Market Outlook

The sports exoskeleton market is set to grow rapidly as technologies mature, costs decline, and awareness rises. Increased R&D, strategic partnerships, and integration of AI-driven systems will expand adoption across sports, rehabilitation, and recreational segments worldwide

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The Global Powered Exoskeleton Market is expected to grow at a CAGR of 44.85% during the forecast period (2024-2031).

The Global Medical Exoskeleton Market is expected to grow at a CAGR of 48% during the forecast period (2024-2031).

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