

# Artificial Intelligence (AI) in Operating Room Market To Surpass \$2 Billion by 2033 | Latest Research – 2025-2033

Artificial Intelligence in Operating Room Market was valued at US\$ 573.46M in 2024 and is projected to reach US\$ 2,063.86M by 2033, growing at a 15.4% CAGR.

AUSTIN, TX, UNITED STATES, June 17, 2025 /EINPresswire.com/ -- Artificial Intelligence in Operating Room Market Overview 

 Othering Countering Room Market

 Market Shares: By Offering

 Offering

The <u>Artificial Intelligence in Operating</u> <u>Room Market Size</u> was valued at US\$

573.46 Million in 2024 and is projected to grow significantly, reaching approximately US\$ 2,063.86 Million by 2033. This growth reflects a compound annual growth rate (CAGR) of 15.4% over the forecast period from 2025 to 2033.

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In the U.S., Rising demand for precision surgeries and smart OR tech is driving AI in Operating Rooms, contributing to a market expected to grow rapidly through 2033."

DataM Intelligence

In 2024, the global market for Artificial Intelligence in the Operating Room was valued in the multi-billion-dollar range. Projections suggest significant growth through 2032, driven by rising demand for minimally invasive procedures, the growing focus on surgical precision, and the healthcare sector's digital transformation.

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Report:<u>https://www.datamintelligence.com/download-</u> sample/artificial-intelligence-in-operating-room-market

Key Industry Developments

In April 2024, Medtronic unveiled 14 new AI-powered algorithms designed to enhance surgical workflows, instrument tracking, and anatomy recognition within its Touch Surgery Performance

#### Insights platform.

In March 2024, Johnson & Johnson MedTech revealed its collaboration with NVIDIA to expand the use of artificial intelligence in surgery, aiming to boost real-time data analysis, improve surgical decision-making, and enable global access to AI technologies for surgical training and collaborative efforts within connected operating rooms.

**Regional Outlook** 

#### North America

The North American region, particularly the United States, is at the forefront of AI adoption in healthcare. With significant investments in medical tech infrastructure, and the presence of key technology players, the U.S. has become a leader in bringing AI into the operating room. Hospitals across the country are actively exploring AI-powered surgical planning and visualization tools to boost efficiency and patient safety.

#### Europe

Europe has also shown impressive growth, with countries like Germany, France, and the UK adopting smart surgical tools. The region's strict medical safety standards are pushing innovation toward accuracy, automation, and transparency, allowing AI to fill the gaps in diagnostics and intraoperative decision-making.

#### Asia-Pacific

Asia-Pacific is expected to be the fastest-growing market during the forecast period. Japan, South Korea, and China are leading innovation through advanced robotics, and growing partnerships between tech companies and hospitals. These collaborations are fueling an ecosystem where AI and healthcare merge seamlessly.

Leading Companies

Activ Surgical, Inc

Brainomix Ltd

Caresyntax, Inc

Medtronic

DeepOR S.A.S

ExplORer Surgical Corp.

Holo Surgical Inc.

Tianjin JingMing New Tech. Devp. Co., Ltd

HANSON MEDITEC CO., LTD

Huaian Meide Medical Instrument Co., Ltd

Market Segmentation:

By Offering: Software, AI surgical assistance platforms, Image recognition and diagnostics, Workflow optimization software, Hardware, AI-enabled surgical robots, Sensors and imaging devices, Services, Installation and integration, Maintenance and support, Training and education

By Application: Surgical Planning and Navigation, Intraoperative Decision Support, Postoperative Outcome Analysis

By End User: Hospitals, Ambulatory Surgical Centers (ASCs), Specialty Clinics, Academic & Research Institutes, , Artificial Intelligence in Operating Room Market Regional Market, North America, U.S., Canada, Mexico, Europe, Germany, U.K., France, Spain, Italy, Rest of Europe, South America, Brazil, Argentina, Rest of South America, Asia-Pacific, China, India, Japan, South Korea, Rest of Asia-Pacific, Middle East and Africa,

Latest News of USA

In early 2025, a leading U.S. hospital network announced the successful rollout of AI-assisted operating rooms across five major cities. The implementation includes AI-powered 3D surgical mapping, predictive analytics tools for patient recovery, and robotic assistance for minimally invasive surgeries.

Furthermore, a U.S.-based AI startup specializing in surgical safety announced FDA clearance for its AI-powered surgical support system. This system offers real-time suggestions during surgeries and alerts for potential anomalies helping reduce human errors by over 30% in pilot hospitals.

Medical universities in the U.S. have also ramped up training programs to familiarize future surgeons with AI-integrated systems. The emphasis is now shifting toward hybrid expertise technical proficiency alongside medical knowledge.

Latest News of Japan

Japan, known for its innovation in robotics, has taken a significant leap in 2025 by launching a

national initiative to modernize operating rooms using AI technology. The initiative includes government funding to equip public hospitals with AI-assisted surgical systems and support domestic startups working in this space.

A major Japanese medical device manufacturer recently unveiled an AI-based surgical imaging system that allows surgeons to see enhanced visuals of tissue and blood flow during operations. Early trials show a notable improvement in surgical accuracy and patient recovery times. Japanese hospitals are also working closely with universities to co-develop AI solutions tailored to local patient demographics and clinical practices. This method guarantees that AI systems are both technically reliable and aligned with cultural and clinical needs.

## Conclusion

The Artificial Intelligence in Operating Room market is poised for robust growth as hospitals across the globe seek smarter, safer, and more efficient surgical solutions. With advancements in imaging, robotic assistance, and predictive analytics, AI is no longer a futuristic promise it's a present-day necessity.

Both developed and developing regions are stepping up their AI adoption game, and innovation is accelerating in response to real clinical needs. As AI continues to evolve, its presence in the operating room is expected to transform surgical outcomes, lower healthcare costs, and redefine the standards of patient care.

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