

A Review on How Artificial Intelligence-Assisted Surgeries Enhance the Medical Field

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Abstract

Artificial Intelligence (AI) - assisted has now become a ground breaking technology in the medical field. AI-assisted surgeries are aimed at enhancing the surgeries, automated manual surgeries, and minimizing human errors during surgeries, etc. In the future, surgery will be, not just a skilled hand of a surgeon, but also a symphony of intelligence. Precise robotic arms, guided by the keen insights of Artificial Intelligence, will navigate the delicate world within patients' bodies. The benefits of the combination of these two will be countless. However, revolution is not just about the technology. It's about the human at the heart of it all. Also, it does not replace the surgeon's intuition, it elevates it. This review explores the advancements, benefits, and methodology that are associated with AI surgeries. It provides an in-depth analysis of AI-assisted surgeries powered by Computer Vision, image-guided procedures, and remote surgeries. Real life examples of successful AI-assisted surgeries are presented in this research paper to highlight the probability of life-saving with this technology. The methodology section discusses data collection, algorithm training, validation, and deployment. Overall, AI-assisted surgeries represent a transformative force and a key potential in the medical field. Furthermore, AI has the potential to revolutionize surgical care, leading to a safe future for patient outcomes, enhanced surgical efficiency, and equitable access to quality healthcare. Soon, Artificial Intelligence could be the backbone of surgeries, guiding a skilled hand toward a brighter and safer future for medicine.

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