



Robotic-Assisted Spine Surgery: Transforming Spinal Implant Procedures

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Abstract

Robotic-assisted spine surgery has emerged as a transformative technology, revolutionizing spinal implant procedures by enhancing precision, minimizing invasiveness, and improving patient outcomes. Robotic systems, integrated with advanced imaging and navigation technologies, allow surgeons to perform complex spinal procedures with greater accuracy, reducing the risk of human error and improving the placement of spinal implants. This advancement is particularly beneficial in spinal fusion surgeries, deformity correction, and minimally invasive procedures, where precision is critical. Robotic systems provide real-time feedback, enabling more precise alignment, reducing radiation exposure, and shortening recovery times. This article explores the role of robotic-assisted technology in spinal implant

