

Bone and Joint

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Possible talk points

- India may become the osteoarthritis capital of the world with over 60 million cases by 2025: Media reports
- Robotic arm-assisted surgery is a knee replacement treatment option designed to relieve the pain caused by joint degeneration due to osteoarthritis.
- Robotic technology helps reduce hospital stay– in comparison to conventional surgery, robotics is minimally invasive (smaller incisions). In the US, robotic arm-assisted surgery is a single-day discharge procedure.
- Through CT-based 3D modeling of bone anatomy, robotics technology helps surgeons to create a personalized surgical plan and identify the implant size, orientation, and alignment based on each patient's unique anatomy. It allows surgeons to virtually change the surgical plan intraoperatively. This technology helps them in carrying out the bone resections.
- More preservation of healthy bone, especially helpful for patients with poor bone quality due to the 3D planning pre-surgery and precise bone cuts.
- Comparatively less soft tissue release – an important factor for faster recovery and hospital discharge. Evidence – Journal of Arthroplasty study suggests there is reduced bone and periarticular soft tissue injury in patients undergoing robotic-arm assisted total knee

arthroplasty compared to conventional jig based total knee arthroplasty.

- Less post-op pain, improved early mobility recovery. Evidence – Bone and Joint Journal research – Comparative study between conventional and Robotic-arm assisted TKA shows 40% lower pain, 40% lower use of analgesics, 28h faster discharge, etc.

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