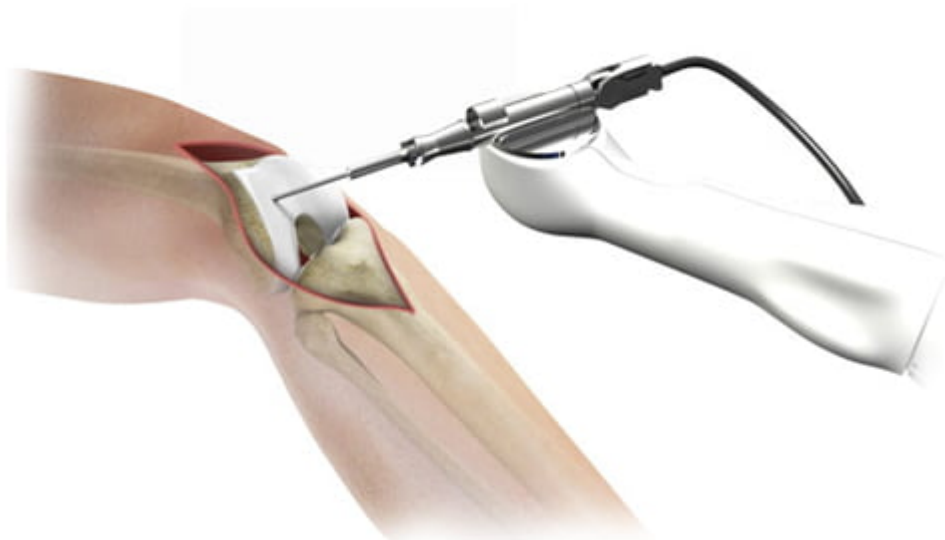


# Computer Assisted Total Knee Replacement Surgery

## Computer Assisted Total Knee Replacement Surgery

Computer-Assisted Total Knee Replacement or **Computer-assisted TKA** helps to replace the knee joints with the help of a computer-guided system. Many studies have shown that well-aligned and balanced knee replacements are likely to last longer and feel better. While experienced surgeons get near-accurate alignment most of the time, but **Computer assisted navigation in total knee and hip** enhances surgical outcomes by helping surgeons align the patient's bones and implants with a degree of accuracy is just not possible with naked eyes.



## **What is navigated knee replacement?**

Just like the navigation system in new-age cars provide driving directions using satellite navigation system with precision, speed, and accuracy not attainable with a map and compass, computer-assisted joint replacement offers visual mapping of patient's anatomy or bone structure that helps the operating surgeon make crucial decisions before and throughout the procedure. It combines the precision and accuracy of computer technology with the surgeon's skill to give the best possible outcomes.

An anchoring pin is mounted into the bone. A navigation tracker is then mounted to the anchoring pin. This tracker continuously interacts with the Navigation system. Using imagery from the infrared cameras, the computer creates a highly detailed 3D model of the knee. After studying the model, a plan for repairing the joint is created. The computer assists in determining the precise angle of cuts that have to be made. It also helps in knowing the size and shape of the implants needed and the proper alignments of the implants as well.



**Computer guided surgery enabling multiple views simult**

The system also gives the surgeon real-time feedback during the surgery and reduces chances of error by alerting the surgeon to potential pitfalls before they are performed.

### **Benefits of Computer Assisted Knee Replacement/ Computer aided navigation technology:**

Computer Assisted Knee Replacement allows surgery through a smaller incision along with allowing maximum possible accuracy.

It also reduces a few but significant surgical steps causing reduced trauma to the patient. Eventually blood loss is minimized and recovery is faster.

The system enables surgeons to view multiple views of the diseased knee simultaneously and take the most accurate decision which is not possible otherwise.

There is a reduced risk of X-Ray exposure to patients as well as OT staff.

If you are looking for **computer assisted knee replacement surgeons in India**, let us give you a great news. We at AIOR <https://www.aior.co.in/index.php> have the best team of doctors. When you get in touch with our team <https://www.drashishsingh.com/bookappointment/appointment.php>, they will be able to answer queries like, '**Is Robotic Assisted Knee Replacement better?**' and throw light on more clarifications to provide you the best solution. So, what are you waiting for- connect with the **AIOR – Anup Institute of Orthopaedics and Rehabilitation team**.