ROBOTIC JOINT REPLACEMENT · PROCEDURE

Total Knee Replacement

Replacing damaged surfaces. Restoring movement.

What Is Total Knee Replacement?

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Total Knee Replacement (TKR), also known as Total Knee Arthroplasty, is a surgical procedure in which worn-out cartilage and damaged joint surfaces are replaced with artificial implants.

The procedure aims to relieve pain, correct knee deformity and improve mobility, helping patients return to everyday activities with greater comfort.

When Is Knee Replacement Necessary?

When knee pain begins to control your life.

Total knee replacement may be recommended for patients with advanced knee arthritis who experience persistent pain, stiffness, deformity or difficulty walking, climbing stairs and performing daily activities.

Surgery is generally considered when medications, physiotherapy, lifestyle modifications and other non-surgical treatments no longer provide adequate relief.

Can Injections or Medicines Regrow Knee Cartilage and Avoid Surgery?

Managing pain is possible. Regrowing severely damaged cartilage remains a challenge.

Currently, no tablet or injection has been proven to reliably regenerate cartilage lost due to advanced knee osteoarthritis.

Treatments such as medications, physiotherapy, lifestyle changes and weight management may relieve symptoms and help some patients postpone surgery.

However, PRP, stem-cell treatments and other injections have not been proven to restore extensively damaged joint surfaces.

Radio frequency ablations as practised by pain physicians are only a short term management options for terminally ill and medically unsuitable patients for the surgery.

The decision to undergo knee replacement depends on symptoms, joint damage and quality of life.

What Are the Implant Options for Knee Replacement?

The right implant for the right patient.

Modern knee replacement implants are designed for durability, smooth joint movement and long-term function.

At Sun Hospitals, implant options include conventional Cobalt-Chromium (CoCr) and advanced OXINIUM (Oxidised Zirconium) implants, which feature a hard, wear-resistant surface.

Implant selection is personalised based on the patient's age, bone quality, anatomy, activity level and clinical requirements.

Why Choose Robotic-Assisted Knee Replacement Over Conventional Surgery?

Greater Precision. Personalised Planning. Surgeon-Controlled Technology.

Robotic-assisted knee replacement offers a more personalised surgical approach through advanced 3D knee mapping, real-time assessment of joint alignment and ligament balance, and precise implant positioning.

Unlike conventional surgery, robotic technology provides additional digital guidance, helping the surgeon tailor the procedure to your individual knee anatomy.

While both techniques can provide excellent outcomes, robotic assistance offers greater precision in certain surgical measurements. The right approach depends on your knee condition and your surgeon's clinical assessment.

What Are the Benefits and Expected Outcomes of Knee Replacement?

Less pain. Better mobility. Greater independence.

Total knee replacement can provide substantial relief from arthritis-related pain, improve joint function, correct deformity and make everyday activities such as walking and climbing stairs more comfortable.

Most patients experience meaningful improvement, although recovery and results vary.

Recovery and Rehabilitation After Total Knee Replacement

Recovery begins with the first steps.

Walking with assistance usually begins within the first day after surgery, depending on the patient's condition. A structured rehabilitation programme focuses on restoring knee movement, strengthening muscles and gradually improving walking ability.

Many patients resume routine daily activities within 3–6 weeks, while strength, flexibility and overall recovery continue improving over several months.

Why Choose Sun Hospitals & Dr. Dharmapal for Knee Replacement?

Built on Experience. Driven by Innovation. Guided by Compassion.

With a legacy of orthopaedic care since 2009, Sun Hospitals combines Dr. Dharmapal G.K.'s extensive surgical expertise with advanced robotic technology and personalised patient care.

Our Experience in Numbers

5 Lakh+ PATIENTS SERVED	**25,000+** SURGERIES PERFORMED
10,000+ KNEE REPLACEMENTS	**3,000+** ROBOTIC KNEE REPLACEMENTS

Our philosophy is centred on ethical medical practice, clinical excellence, appropriate treatment selection and compassionate care — supporting patients from their first consultation through surgery and rehabilitation.

Technology supports our precision. Experience guides our decisions. Patient wellbeing remains our priority.

Cost questions, answered straight

Before we schedule anything, our insurance desk gives you a written estimate and checks your policy for cashless eligibility, so you know where you stand before treatment begins.