



PIONEERING ROBOTIC KNEE SURGERY AT MELOMED TOKAI



Melomed Tokai Hospital continues to **lead in orthopaedic excellence with the successful completion of a complex robotic-assisted knee replacement surgery, performed by Dr. Zaheer Moonda, Orthopaedic Surgeon.** This milestone showcases our commitment to innovation and cutting-edge medical technology in patient care.

The patient presented with a particularly challenging case, having undergone a previous femur fracture repair with indwelling hardware, which made a conventional knee replacement approach unfeasible. Traditional techniques rely on the femoral canal for alignment of the prosthesis - a method that was not viable in this case. Additionally, the patient had a significant 14-degree knee deformity, further complicating the procedure.

The Role of Robotics in Precision Surgery

Robotic-assisted knee replacements offer significant advantages over conventional techniques by ensuring **unparalleled precision** in prosthetic placement, alignment and soft tissue balancing. The technology removes the margin of error inherent in manual approaches, allowing for **real-time intraoperative adjustments** based on continuous feedback. This enhances both surgical accuracy and long-term patient outcomes.

For this procedure, Dr. Moonda utilised the **Corin Omnicore system**, which is particularly advantageous as it dynamically monitors live tissue

and ligament tension throughout the full range of motion. The incorporation of the **BalanceBot robotic tensioner** enables meticulous balancing of soft tissues, ensuring optimal joint function post-surgery.

"There are several robotic systems available, each with unique execution methods. I have been trained to utilise multiple systems, allowing me to select the most suitable one for each patient's specific needs," says Dr. Moonda.

With advanced robotic technology now available at Melomed Tokai Hospital, we continue to redefine orthopaedic excellence—providing patients with state-of-the-art surgical solutions that enhance precision, recovery, and long-term joint health.

For more information on Orthopaedic Surgery or a list of our Orthopaedic Surgeons, visit our website on: www.melomed.co.za