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**KNEE REPLACEMENT
NOW JUST LIKE
YOUR NATURAL KNEE!**



To know more, call : 98142 09405 or SMS 'ROBOT' to 57575

THE FUTURE IS HERE



Dr. Shubhang Aggarwal, M.Ch. Orth. (U.K.), is the only super-specialist Orthopaedic & Joint Replacement surgeon in this part of the country, one of a handful in India. Born and brought up in Jalandhar, he did his basic Medical and Orthopaedic training at Kasturba Medical College, Manipal, where he was exposed to a variety of orthopaedic specialities like Arthroplasty, Arthroscopy, Spine Surgery, Traumatology and Paediatric Orthopaedics.

From there he was selected for advanced training in the speciality of Joint Replacement Surgery at Bombay Hospital, Mumbai. After he completed his masters from there, he gained an interested in Computer Assisted Joint Replacement Surgery and did an "Intelligent Knee Surgery" training at Singapore.

From there he went on to undergo several travelling fellowships and trainings in modern arthroplasty techniques at various centres of excellence in some of the top hospitals of the world.

Committed to bringing the best and the latest technology of the world, to this part of the country, Dr. Shubhang Aggarwal decided to introduce Robotics in Joint Replacement Surgery. He believes that with the use of robotics surgery, there is much faster recovery with 100% precise placement of implants, accurate alignment and a minimal need to touch the ligaments for soft tissue balancing. This actually makes it almost non invasive, enabling us to send our patients home earlier and also increases the longevity of the joints placed.

With the use of robotics, there is minimal pain post surgery and just after 3 hours of surgery, most patients can start walking. In 3 to 4 days, most people bend their knees to 130 to 140 plus degrees and are able to climb stairs. This has led to the birth of NHS Ortho-Robotics.

At NHS Ortho-Robotics, we are committed to using the latest technology, aiming at the perfect surgery to make a perfect you.



It Makes Your
Life Perfect
Again

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INTRODUCTION TO TOTAL JOINT ARTHROPLASTY/ JOINT REPLACEMENT SURGERY

The problem of joint pain, especially knee pain has spread across the world like an epidemic but more precise and successful knee replacement surgery is giving relief to patients worldwide. With more young patients going in for surgery, the expectations from a surgery and demand on the implant has increased.

A few years ago, people were scared of the procedure but now, with better techniques and use of futuristic technology, it is possible for us to deliver almost pain-free surgery, faster recovery and life-long functioning implants. For the first time in this part of the country, NHS Hospital, a premier multi super-speciality hospital in Jalandhar is home to NHS Ortho-Robotics, a Centre of Excellence in Robotic Orthopaedic Surgery.

Why Robotics?

Think of a pilot flying a plane through a thick fog! Routinely a few decades ago, he would use his senses & imagination to try and land the plane safely. Now imagine today's scenario where the same pilot has high quality satellite guidance. He can switch on his autopilot mode and let the sensors and technology guide the plane to land smoothly. Not only does the plane land perfectly but also without any damage or turbulence.

In the same way, imagine an orthopaedic surgeon doing conventional surgery where he does not have the clearest three dimensional image and he relies on eyeballing with his 2D vision for assessment of deformity and making the bone cuts. Now, the same orthopaedic surgeon, using high-end robotics, with artificial intelligence creates a live 4D map of the joint and sees the ideal placement of the artificial implant to be put and just like the auto-pilot, the robotic tool burrs off just that much bone, to get the perfect fit of implant, saving the natural bone and ligaments!





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We welcome you to
NHS Ortho-Robotics.
Knee replacements, now
just like your natural knee!

”

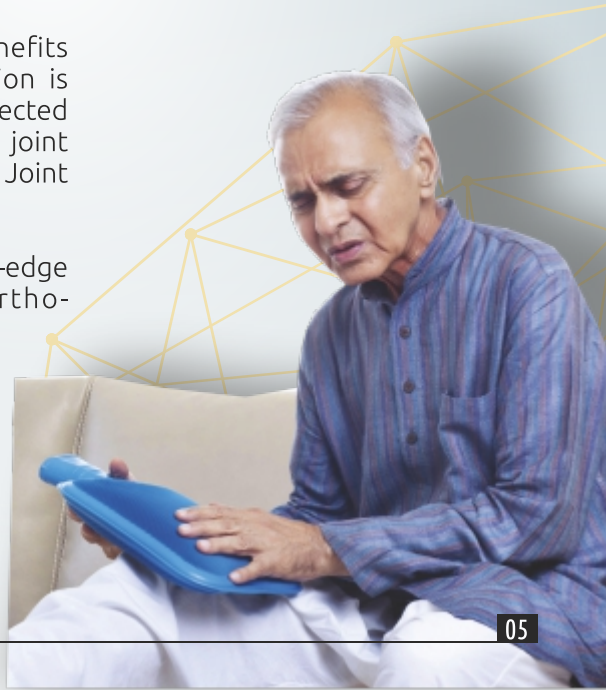
WHEN DO YOU NEED JOINT REPLACEMENT?

When there is a breakdown of the cushioned covering of the bone ends (cartilage) and the natural joint becomes so bad that it affects our daily routine due to pain and disability; and simple options like lifestyle modification, medicines, exercises, physiotherapy stop working, it is time to consider Joint Replacement Surgery, whether its for the hip/knee/shoulder!

Ideal age for knee replacement surgery is a discussion of the past. The focus is on quality of life! With robotics, we offer you life-long lasting implants.

After understanding the benefits and risks, an informed decision is made. If you think your life is affected because of arthritis or other joint conditions, you must go in for Joint Replacement!

Today, with advanced, cutting-edge technology, we at NHS Ortho-Robotics have what it takes to leave your original knee undisturbed and place an artificial knee, closest to the natural knee.



PARTIAL (UNICONDYLAR) KNEE REPLACEMENT

Partial Knee Replacement is a modern solution to pain in the knee when the damage is restricted only to one half of the joint.

During Robotic Partial Knee Replacement Surgery, with just a small incision, only the damaged bone and cartilage is resurfaced with metal and plastic components.

It is a wonderful and simple surgery almost like a day care procedure! With 100% precision of artificial intelligence, the patients usually...

GO HOME WALKING WITHIN 24 HOURS!



TOTAL KNEE REPLACEMENT

If your knee is severely damaged by arthritis or an injury, it may be hard for you to perform simple activities, such as walking or climbing stairs. You may even begin to feel pain while you are sitting or lying down.

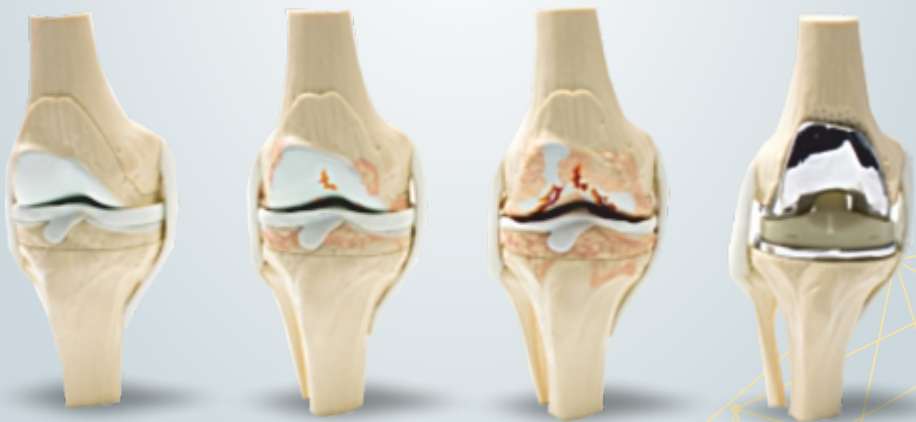
If non-surgical treatments like medications and using walking support are no longer helpful, you may want to consider Total Knee Replacement Surgery. An important factor in deciding whether to have this surgery, is understanding what the procedure can and cannot do.

More than 90% of people who opt for Total Knee Replacement Surgery experience a dramatic reduction of knee pain and a significant improvement in the ability to perform

common activities in their daily routines. But Total Knee Replacement will not allow you to do more than you could before you developed arthritis. Therefore, most surgeons advise against high-impact activities such as running, jogging, jumping, or other such sports for the rest of your life after surgery.

Hence, it is best that you go for a more precise Unicondylar Replacement, which helps to get rid of your joint pains, with the smallest incisions and least amount of pain.

Follow your doctor's instructions properly – Before, During and After Surgery.



ROBOTIC ORTHOPAEDIC SURGERY – CONVENTIONAL VS NEW!

The world has witnessed the power of technology and advancements in the past few years. Virtual Assistants, Electric Cars, 3D Satellite Mapping and now we have Robot-Assisted Knee Replacement Surgeries, for the first time in Jalandhar, Doaba!

With the NAVIO Robotic Surgical System™ we integrate the latest technology with the skills of our expert orthopaedic surgeons for a result oriented joint replacement procedure! Designed to help ensure your knee replacement is positioned and aligned correctly, surgeons use robotics to get excellent results. Only the damaged areas are burred by the robot instead of cut/sawed open, as you would in a conventional surgery. Thus, you can protect the surrounding tissue & bone and ensure faster recovery with a knee implant that is as good as the original one, due to minimal release of ligaments. This leaves your knee as close to the natural one as possible, with the least amount of pain or blood & 100% precision.



Benefits of using a Robotic Surgical System:

- **Kinematic ligament balancing**
- **100% precision with artificial intelligence**
- **Lesser tissue invasion**
- **As close to your original knee**
- **Shorter hospital stays**
- **Placement of implants is perfect as per the unique shape and motion of each patient's knee anatomy**
- **Faster recovery; patients can walk in 3 hours**



INTERNATIONAL STANDARDS

We follow the best practice guidelines for arthroplasty.

Facilities at NHS Ortho-Robotics are at par with international centres for robotic surgery. The NAVIO Robotic Surgical System has been imported from U.S.A. making NHS Hospital, one of the few Orthopaedic Centres to have such technology.



? FAQs

UNDERSTAND YOUR SURGERY & SHED YOUR DOUBTS!

1. What is knee/hip/shoulder replacement surgery?

Joint Replacement involves replacing the diseased and damaged natural joint of the body with an artificial one. This artificial joint is made of highly specialised bio-insert non-reactive metal, ceramic, or polyethylene material and is fit into the bones with or without bone cement.

2. At what age is Joint Replacement generally advised?

Patients of Osteoarthritis generally undergo surgery at around 55 years of age but it depends on the stage of the disease. Severely affected patients, e.g. ankylosing/rheumatoid arthritis undergo surgery successfully even at 20 years of age.

3. What are the big advantages of using robotic surgery for patients, surgeons and hospitals in India adopting this technology?

There is always a cost to new technology. But if we can ensure that implants last long, it's really a powerful cost saver. So, one of the things that is the power of the robot is that because of its accuracy and precision it can reduce costs in the long run. By using better technology to ENSURE LONG LASTING AND BETTER FUNCTIONING OF THE ARTIFICIAL JOINTS, it will help the healthcare economics of India in general. It also brings far superior outcomes with the latest and greatest cutting-edge technology, helping us to be at par with some of the modern hospitals of the Western world.

4. How significantly different are the patient outcomes for patients going in for robot assisted Partial Knee or Total Knee Replacement Surgeries?

Robotic Partial Knee Replacement Surgery has been around for over 5 years. And there are many published studies showing superiority, accuracy, precision, patient satisfaction and outcomes based on the Australian Registry. Total knee surgery has been around for about two years now and in India for the past one year. So the amount of data is less but in the early results it is showing improved outcomes in terms of accuracy, precision, faster recovery and patient satisfaction.

5. What is the role of a surgeon in Robotic Knee Replacement Surgery?

In robotic orthopaedic surgery, the robot is a tool that uses artificial intelligence & real time mapping, which helps the surgeon to plan and execute a perfect surgery. It's no different than saying if you have one type of tennis racket versus a very fancy type of tennis racket. The evolution of tennis rackets have evolved from wood to now all carbon fibre graphene. The robot is a great artificial assistant but still in the hands of an experienced surgeon. You are still a tennis player with a tennis racket, similarly the surgeon with a good tool gets to perform better! It's 100% accurate and gives great results. If a robotic tool is better and gives the patients better outcomes, it's potentially worth it.





STILL MUCH MORE TO GO: SERVICES OFFERED AT THE DIVISION OF ORTHO-ROBOTICS, DEPARTMENT OF ORTHOPAEDICS

At our premier multi-speciality hospital, we boast of a world-class ambience for orthopaedics and strive to provide you with modern, ethical, scientific and comprehensive treatment of all orthopaedic conditions.



SHOULDER, HIP & KNEE REPLACEMENTS

The leading cause of joint diseases is the wear of the cartilage, also known as osteoarthritis, and in the case of severe or advanced osteoarthritis, a partial or total joint replacement may be recommended. Fortunately, Dr. Shubhang Aggarwal is a leading expert in total joint replacements of the hip, knee and shoulder. Total replacements have a high rate of success and, in most cases, patients report significant pain reduction and greatly improved activity levels.

- Minimally invasive tissue preserving techniques
- Robotic surgery with 100% precision
- Patient controlled analgesia for painless recovery

- Dedicated rehab unit
- Latest implants lasting 30-40 years
- Dedicated programme for Cartilage Renewal

PAEDIATRIC ORTHOPAEDICS

- Cerebral palsy/DDH/Club foot surgery
- Free Polio surgery
- Dedicated neuro-muscular rehab
- In-house orthotics and prosthetics





SCOLIOSIS SURGERY

- Corrective surgery for spine deformities
- Nerve stimulation/SSEP

SPORTS INJURIES & REHABILITATION

- Arthroscopic ligament reconstruction and repair
- Arthroscopic chondroplasty & regrow cartilage surgery
- Arthroscopic meniscal repair (save the meniscus)
- Dedicated sports rehab unit
- Radio frequency co-ablation (TOPAZ) for tennis elbow/heel fasciitis
- CartiGram (state-of-the-art MRI for Cartilage mapping, to assess recovery)



ADVANCED TRAUMA RECONSTRUCTION

Some fractures do not need surgical intervention and can be treated with casting or bracing. However, certain types of fractures are considered malaligned or unstable and may require surgical intervention. A thorough evaluation and an extensive discussion of treatment options, both conservative and surgical, will ensure optimal results.

- Pelvis fixation
- Acetabulum fixation



CREATING PERFECT JOINTS & SMILES

“ I was going through severe knee problems from the last two years. Once I went through the newspaper ad of NHS Jalandhar's Robotic Knee Replacement Surgery and contacted Dr. Shubhang Aggarwal. Here I have been operated for both my knees and within 3 hours, I was able to take small steps and on the next day itself, I was completely okay to walk properly. Thank you, NHS, Jalandhar.

Mrs. Aruna Devi, Hoshiarpur

“ I was not able to walk form last 6-7 months at all. One day my son came across NHS Jalandhar's ad in the newspaper about Robotic Knee Replacement Surgery. We came here and met Dr. Shubhang Aggarwal who suggested us to go under robotic knee replacement surgery. On 1 May 2019, I went under the surgery and within 3 hours, I was able to take my first steps and on the next day, they released me. Thank you, NHS Jalandhar, for saving me.

Mrs. Shukla Gupta, Amritsar

“ I was going through severe knee pain and all doctors I have been had let me down. It was Dr. Shubhang Aggarwal from NHS Jalandhar who suggested me to go under robotic knee replacement surgery. On 25 May 2019, I had both my knees operated and within 3 hrs I was able to walk. I would suggest everyone to come here for knee-related issues.

Mr. Beant Singh, Dharamkot

“ Very good services, efficient and caring staff and above all surgeon Dr. Shubhang Aggarwal is the best, who did my single knee replacement with latest robotic technique.

Mrs. Anju Sharda, Jalandhar

“ From the last 6 months, I had severe joint pain that it was hard for me to walk even half kilometre. One day I came across a newspaper ad of NHS Jalandhar's Robotic Knee Replacement Surgery. At first, I thought that the hospital will be very costly but once I spoke to them, I found that robot-assisted knee replacement surgery is not expensive. On 28th May 2019 I had both my knee operated. On the next day itself, I was able to walk normally.

Mrs. Indu Bala, Patiala



NASA & HUB SUPERSPECIALITY //

NHS Hospital, Jalandhar is a 100 bed, state-of-the-art multi super-speciality hospital providing expertise in a complete spectrum of advanced medical and surgical interventions, with a comprehensive mix of inpatient and outpatient services.

The hospital is a technologically advanced facility designed to international standards with the most stringent criteria in infrastructure, medical care, fire-safety norms and environmental guidelines. Every element of the hospital, the premises, the processes and its professionals, contribute to the overriding principle: Here to Make a Difference.

The thrust areas include:- Emergency & Trauma Care, Orthopaedics & Joint Replacement, Neurosciences, and Cardiology. At NHS Hospital we firmly believe that a seamless model backed by advanced technology, skilled expertise and compassionate care is the most effective way to create a difference in healthcare delivery.

CENTRE OF EXCELLENCE FOR ORTHOPAEDIC CARE //

At NHS Hospital, we offer a wide range of services, including knee replacement surgeries, total hip and shoulder replacement surgeries and spine surgeries, as well as various kinds of innovative care for a broad range of musculoskeletal conditions.

Services & Procedures

- Sports Medicine
- Shoulder Arthroscopy and Reconstruction
- Total Joint Reconstruction
- Foot and Ankle Reconstruction
- Hand Surgery
- Knee Arthroscopy and Reconstruction
- Spinal Surgery Non-surgical Management of Spine and Back Pain
- Cartilage Transplantation
- Fracture and Musculoskeletal Trauma Surgery
- Bone Density Screening with Management of Osteoporosis
- Hip Resurfacing

THE NHS EDGE

FACILITIES

- Fully equipped 168 seater auditorium
- In-house parking for 100+ cars
- Wellness lounge
- Dedicated praying areas
- Super Deluxe rooms with separate patient and attendant areas
- Wheel chair accessible doors
- Maximum utilization of natural light
- Wide and open green spaces
- International standard pollution control systems

TECHNOLOGY



Silent MRI 1.5T



**Advanced CT Scan
for Minimum
Radiation Levels**



**Low Radiation
X-Ray**



**Fully Equipped
Cath Lab**

IMPROVE QUALITY
OF LIFE IN



HOURS



- | | | |
|------------------|--------------------|--------------------|
| ✓ 100% PRECISION | ✓ NO BONE CUTTING | ✓ EXACT CUSTOM FIT |
| ✓ LESSER PAIN | ✓ SMALLER INCISION | ✓ FASTER RECOVERY |



NHS Hospital: 300 m from Kapurthala Chowk, Near Sports College, Jalandhar

🌐 www.nhshospital.in ☎ 0181 - 4640181 **24/7** 0181 - 4633333