

Quicker Recovery

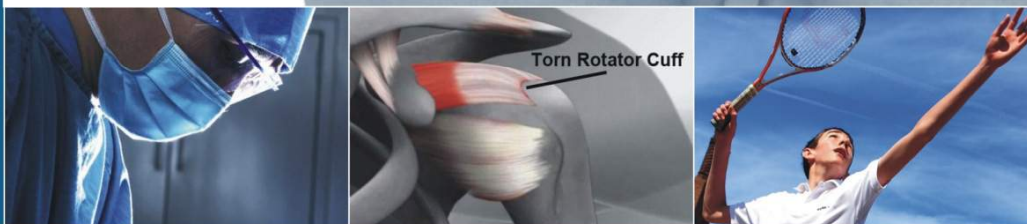
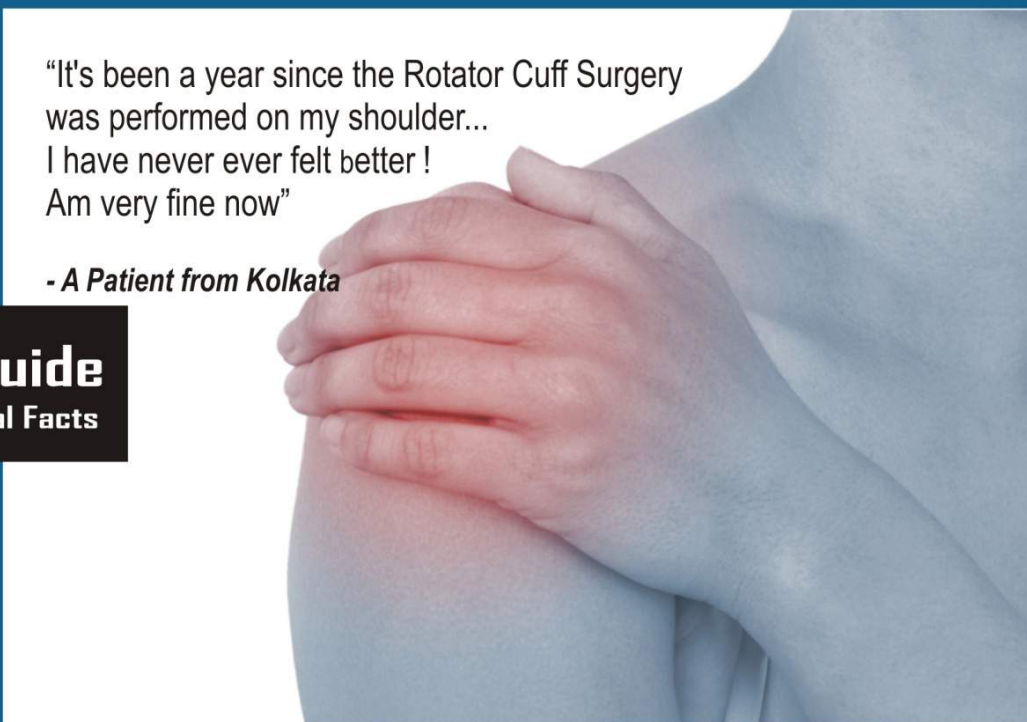
ROTATOR CUFF SURGERY

Solution To Repair Torn Tendon In The Shoulder

"It's been a year since the Rotator Cuff Surgery was performed on my shoulder...
I have never ever felt better !
Am very fine now"

- A Patient from Kolkata

Patient Guide
Authentic Medical Facts



12,000+ Patients Treated Successfully



Dr. Santosh Kumar

MBBS, D.Ortho, M.Ch.[Ortho],
Specialist Orthopaedic Surgeon



POORVA ORTHOPAEDIC FOUNDATION

About Dr.Santosh Kumar



MBBS (JIPMER), D.ORTH (JIPMER); MCh ORTH (SCYHELLS)
Head : Department of Computer Assisted Joint Replacement Surgery : BELLE VUE CLINIC
JOINT REPLACEMENT SURGEON, ARTHRITIS FOUNDATION,INDIA
Subspecialty- Knee Joint- Total Knee Replacement, Knee Arthroscopy.
Fellowship in Joint Replacement, Max Hospital, New Delhi
TRAINED IN COMPUTER ASSISTED JOINT REPLACEMENT FROM AUSTRIA
Trained in Revision Knee and Hip Replacements
Trained in Complex Joint Replacement from the DELTA FOUNDATION of AUSTRALIA

INTRODUCTION

Dr Santosh Kumar and his team are leading knee specialists in Kolkata. He is one of the best doctors in Knee replacement today. Knee replacements are routine in Kolkata (Calcutta) today and Dr Santosh Kumar has been instrumental in making international quality knee surgery affordable to the mass.

HE HAS EXPERIENCE OF MORE THAN TWO THOUSAND KNEE REPLACEMENTS



GRADUATION

MBBS – from Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER, Pondichery) Directorate General of health Services, Govt. of India from 1995 to 2001.

HOUSE JOB in Department of Orthopedics, JIPMER from April 2001 to June 2002.

POST GRADUATION

D Orth from Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER, Pondichery) Directorate General of health Services, Govt of India from 1st April to 31st March 2005.

BONE BANK JIPMER

In charge bone bank JIPMER from April 2004 to March 2005. TRAUMA COURSE online of ADVANCED TRAUMA LIFE SUPPORT at CMC Vellore January 2005.

Clinical Research Fellow in Orthopaedic Oncology at JIPMER Hospital from April 2005 to June 2005.

REDISTRAR ORTHOPEDICS

Whole time registrar in Orthopaedics at Bhattacharyya Orthopaedics and Related Research Center (P) Ltd., Narayanpur, Kolkata – 136 from 1st July 2005 to 31st June 2007.

MCh ORTH

Passed MCh ORTH from the University of Seychelles American Institute of Medicine, March 13th 2008.

MCh Thesis : a study into the controversial aspects of interlocking nail of femur.

TRAINING

DELTA COURSE for advanced aspects of complex primary and REVISION knee replacement. At MAX Hospital, New Delhi in Sept, 2008.

FELLOWSHIP in KNEE REPLACEMENT in Max Hospital, New Delhi from Sept, 2008 with Dr. S.K.S. Marya for total of 54 knee replacement surgeries.

AO SPINE Training in Bombay July 2009.

AO TRAUMA Training 8th to 10th Oct, 2009, Kanpur

DELTA COURSE for Advanced Aspects of Complex Primary and Revision Knee Replacement, at SUN SHINE Hospital, Hyderabad in Nov, 2009.

Ranawat joint replacement course in Jan 2010 Kolkata

Trained in complex joint replacements, at Bangkok. Jan 2011 by DEPUY institute at Bangkok

Trained in revision joint replacements by DE PUY institute at Chennai, June 2011.

Medtronic Academy course in cervical spine in October 2011

Trained in computer assisted knee replacement at Fortis Chandigarh in Jan 2012

AO advanced trauma course in March 2012 at Kolkata

TRAINING [continued]...

Trained in complex joint replacements in USA , PHOENIX, by KLEOS foundation (Smith and Nephew educational body) April 2012

Trained in minimally invasive spine surgery by Medtronic Academy foundation May 2012

Trained in computer assisted navigation technology for knee replacement in Vienna Austria, in June 2012.

PAPERS PUBLISHED / PRESENTED

Bilateral fracture dislocation of Hip, pipkin 1 – its management and the result – published in the West Bengal journal of orthopaedics – vol 20, number 2, September 2006, myself as Primary author.

The role of total hip replacement in ankylosing spondylitis patients – under consideration for publication in the Indian journal of orthopaedics.

OPPONENSPLASTY – a method to reconstruct the post polio paralytic thumb – presented at the midcon 2005, West Bengal Orthopaedic Association.

Follow up of 24 total hip replacements in ankylosing spondylitis patients presented at the annual conference of the West Bengal Orthopedics Association 2006.

AWARDS RECEIVED :

Dr.Santosh Kumar received Certificate of International Excellence in Minimally Invasive Computer Assisted Joint Replacement Surgery by the ASCULAP ACADEMY, Germany



Titles

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SECTION A

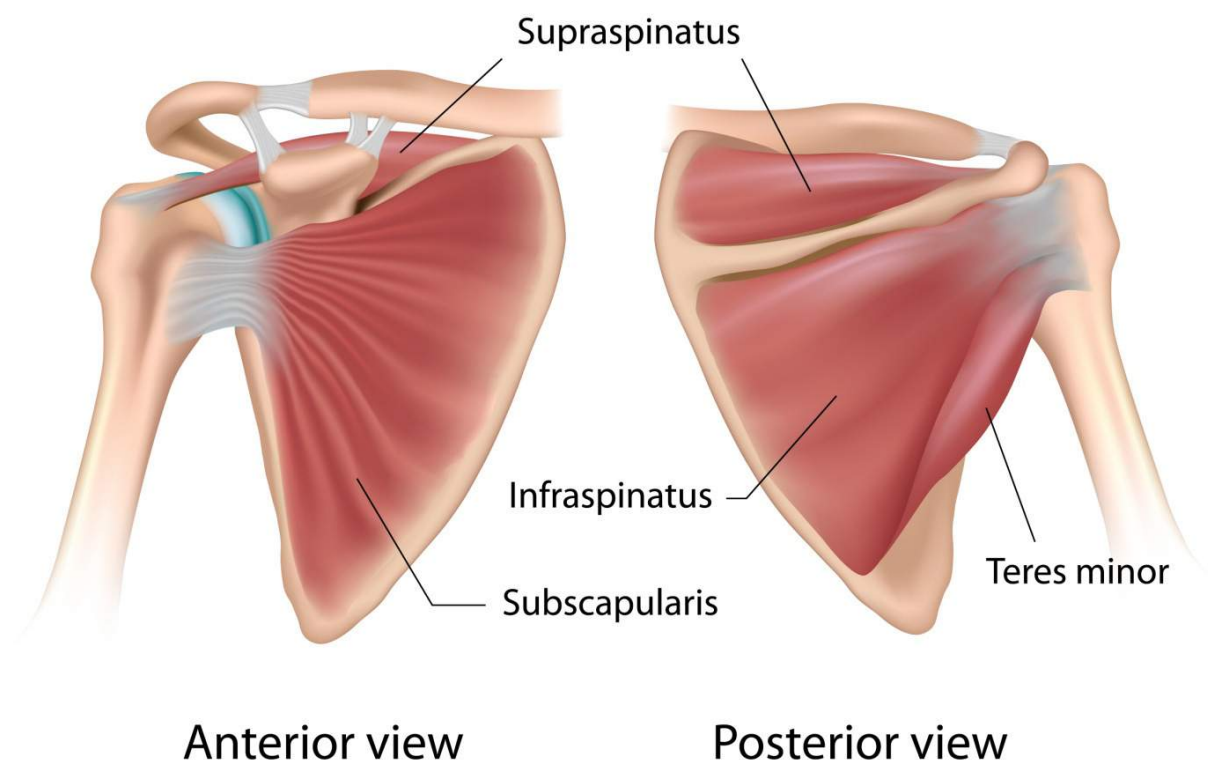


Muscles of Rotator Cuff

The rotator cuff is composed of four muscles, the subscapularis, the supraspinatus, the infraspinatus and the teres minor. From separate origins at the posterior (supraspinatus, infraspinatus and teres minor) and anterior (subscapularis) surfaces of the scapula.

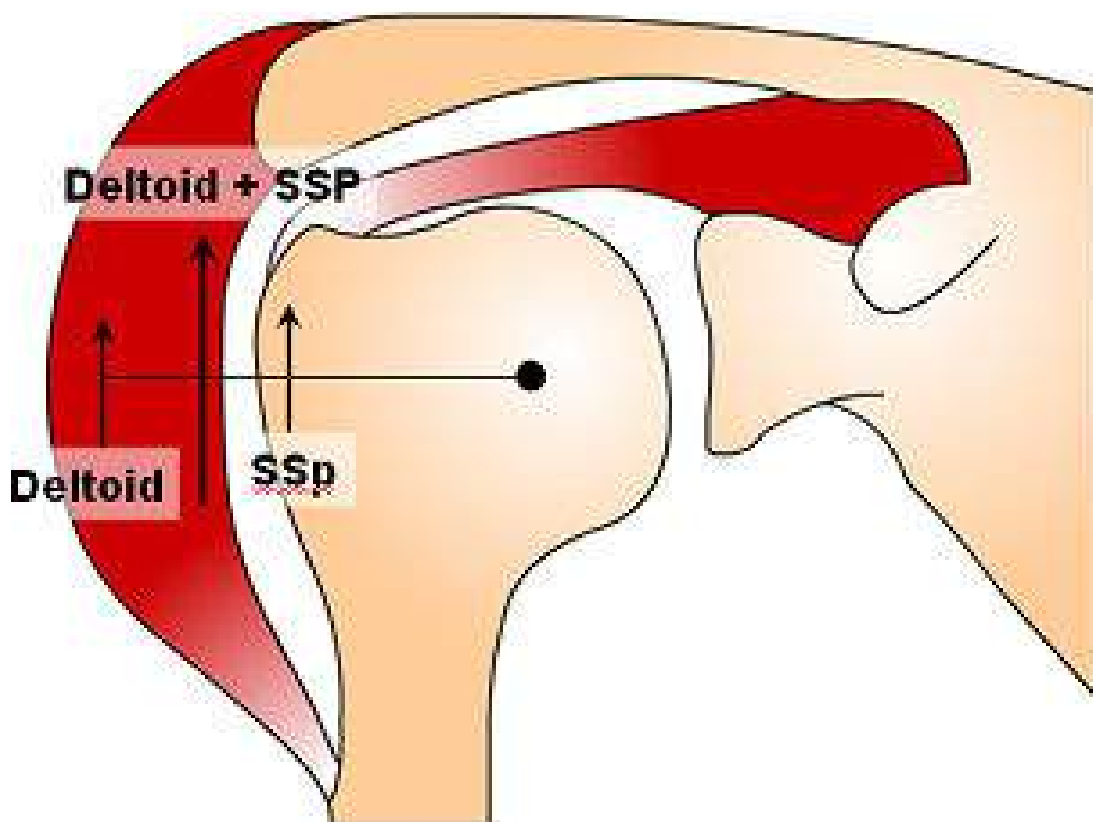
They Fuse together with the articular capsule into a common insertion on the tuberosities of the humerus, which is known as the footprint of the rotator cuff.

Rotator Cuff Muscles



Actions of Rotator Cuff

Rotator cuff acts as a mechanical couple in conjunction with Deltoid in shoulder rotation & elevation.



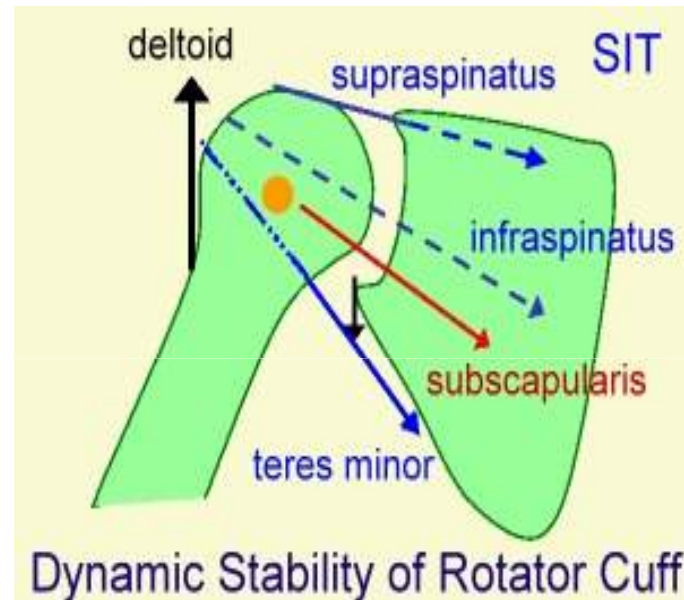
Important functions:

- Counterbalance the upward pull of the deltoid on the humerus.
- Hold the head of the humerus secure in the glenoid.
- Externally rotate the shoulder which is important during arm elevation.



Functions of Rotator Cuff Muscles

The rotator cuff muscles are important in shoulder movements and in maintaining glenohumeral joint (shoulder joint) stability. These muscles arise from the scapula and connect to the head of the humerus, forming a cuff at the shoulder joint. They hold the head of the humerus in the small and shallow glenoid fossa of the scapula. The glenohumeral joint has been analogously described as a golf ball (head of the humerus) sitting on a golf tee (glenoid fossa).



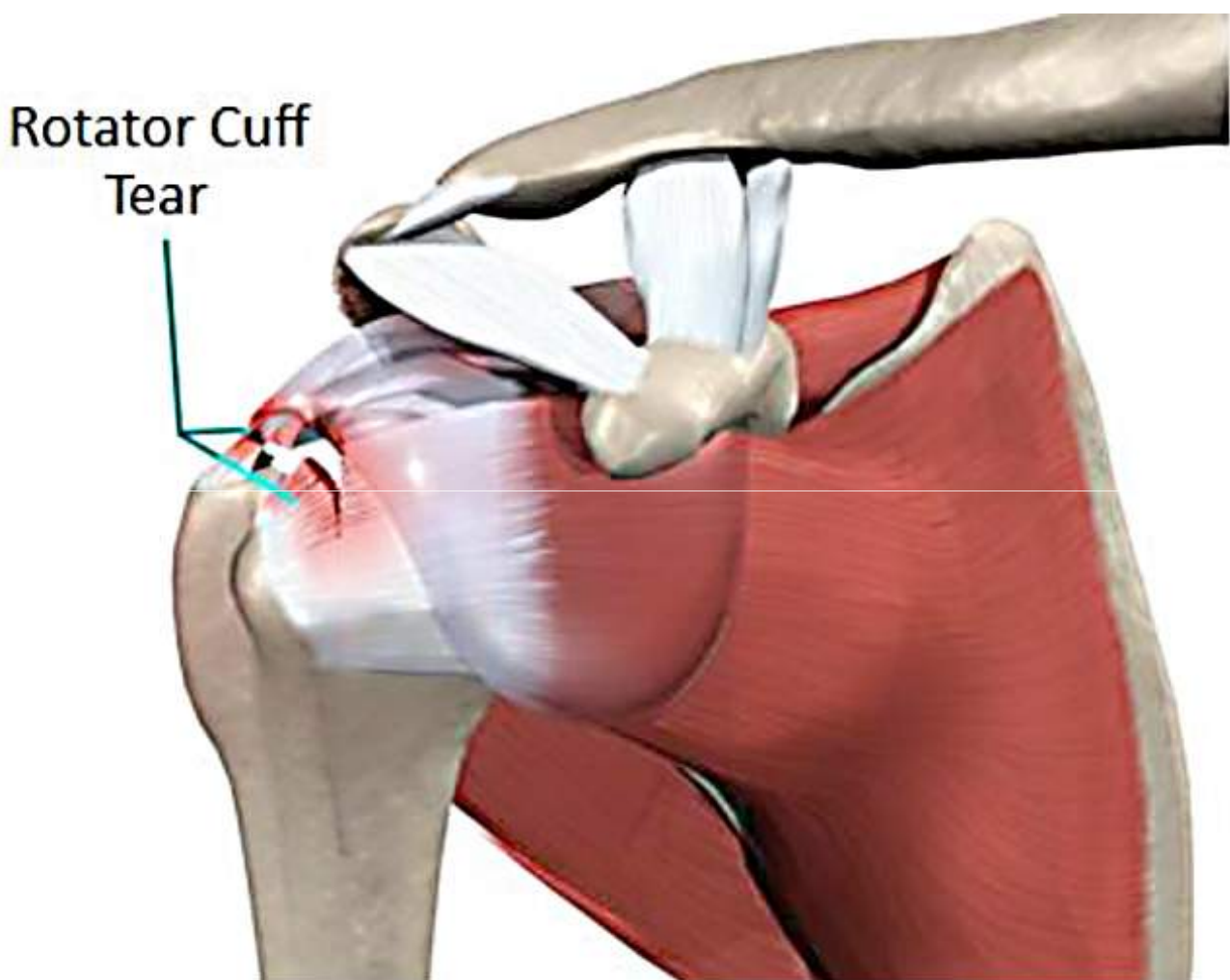
During abduction of the arm, moving it outward and away from the trunk, the rotator cuff compresses the glenohumeral joint, a term known as concavity compression, in order to allow the large deltoid muscle to further elevate the arm. In other words, without the rotator cuff, the humeral head would ride up partially out of the glenoid fossa, lessening the efficiency of the deltoid muscle. The anterior and posterior directions of the glenoid fossa are more susceptible to shear force perturbations as the glenoid fossa is not as deep relative to the superior and inferior directions. The rotator cuff's contributions to concavity compression and stability vary according to their stiffness and the direction of the force they apply upon the joint.

Despite stabilizing the glenohumeral joint and controlling humeral head translation, the rotator cuff muscles also perform multiple functions, including abduction, internal rotation, and external rotation of the shoulder. The infraspinatus and subscapularis have significant roles in scapular plane shoulder abduction (scaption), generating forces that are two to three times greater than the force produced by the supraspinatus muscle. However, the supraspinatus is more effective for general shoulder abduction because of its moment arm. The anterior portion of the supraspinatus tendon is submitted to significantly greater load and stress, and performs its main functional role



What is a Rotator Cuff Tear?

A rotator cuff tear is a common cause of shoulder pain and disability among adults. Normally there are 4 rotator cuff tendons that form a covering over the top of the shoulder. These tendons allow the shoulder to move and rotate. Most tears occur in the supraspinatus tendon, but other parts of the rotator cuff may be involved. Overuse is the most common cause of tears, however a fall or sudden injury can also cause a tear.



Non Traumatic & Traumatic Tear

The etiology of rotator cuff tears can be broadly described as traumatic or atraumatic in nature. Traumatic rotator cuff tears present with sudden weakness within the shoulder following a fall onto the shoulder. Patients between the ages of 40-70 who dislocate their shoulder are at high risk for having sustained a rotator cuff tear.

Chronic inflammation within the shoulder can also lead to rotator cuff tears by causes that are poorly understood. Rotator cuff tears can also be attributed to the normal aging process with age-related degeneration leading to a rotator cuff tear that can become symptomatic.

Traumatic Tear

- High velocity trauma (partial- or full-thickness tears)
- Repetitive microtrauma (overuse, athletic)

Non Traumatic Tear

- Degenerative (Work related: Painters, electrician, etc)
- Subacromial Impingement syndrome
- Developmental Factors : Os acromiale , Type 2 or 3 acromion



Risk Factors

- **Working Conditions** – long hours of computer usage stresses your neck and shoulders
- **Age** – directly proportional relationship between age and risk of suffering rotator cuff injuries. Rotator cuff tears most common in people over 40.
- **Exercise** – Athletes playing sports involving repetitive motions (racquetball and hockey players) are at a greater risk of an rotator cuff injury
- **Working in Construction** – Carpenters and painters, who also use repetitive motions, have an increased risk of injury.
- **Poor Posture** – can allow nerves, muscles or tendons to become pinched in your shoulder region
- **Previous Injuries** – Previous injuries irritate the surrounding joints, nerves and ligaments making them susceptible to pain or restricted movement.



Natural History of Rotator Cuff Tear

Forty percent of patients treated without surgery develop enlargement of the rotator cuff tear over a 5-year period of time.

However, 20% of those will have no symptoms. Therefore, less than half of patients with tears will have enlargement but 80% of patients whose tears enlarge will develop symptoms. Small partial thickness tears may heal without surgery.



Symptoms

Patients with rotator cuff tears will commonly complain of night pain that disrupts sleep, difficulty with overhead activities, difficulty lifting objects or reaching away from the body. Patients may also have difficulty reaching behind their back. Weakness is a common complaint that can be progressive in nature depending upon the severity of the rotator cuff tear and the duration of the tear. Pain with certain movements (overhead activities) can lead to a reluctance to perform these maneuvers and subsequent stiffness.

- Pain around shoulder
 - Sleep disturbed by pain
 - Weakness during activities of daily living
 - Previous trauma
 - Time lag before presentation
 - Occupation
 - Predominant hand
- 
- Pain during racquet sports and activities involving throwing
 - Pain when bending the arm and rotating it outwards against resistance
 - Pain on the outside of the shoulder and at times radiating down the arm
 - Shoulder pain that worsens at night
 - Stiffness in the shoulder joint

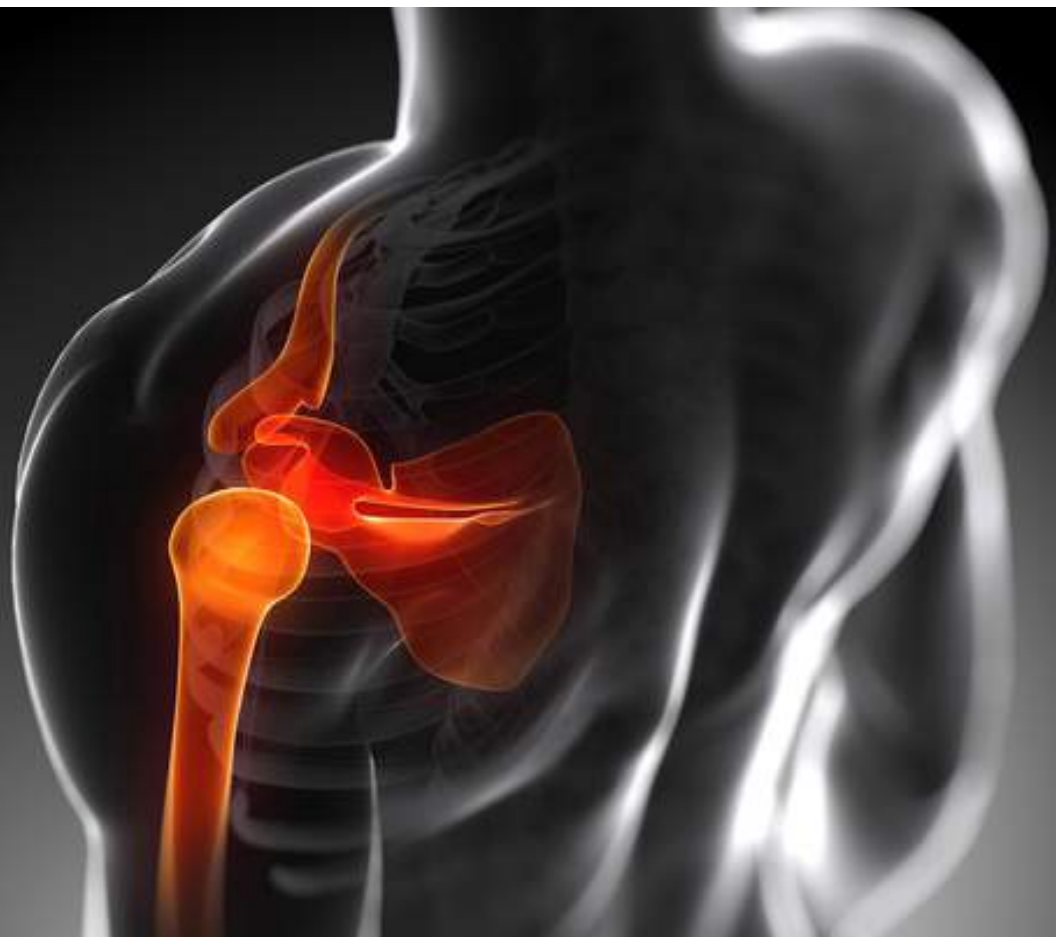


How are Rotator Cuff Tears Diagnosed?

The three most useful clinical tests are :

1. Weakness on external rotation
2. Weakness on supraspinatus testing
3. A positive impingement sign

Clinical Tests Positive	Age	Chance of Rotator Cuff Tear
All 3	Any	98%
Any 2	>60	98%
None	Any	5%



Physical Examination

- Passive and Active ROM
- Strength of motions
- Supraspinatus : Resisted elevation of arm kept in "empty can" position
- Subscapularis “ Lift-off test”
- Infraspinatus : Resisted External Rotation
- Teres minor: Resisted external rotation with arm abducted more than 45°.



Impingement Test

- Hawkin-kennedy test
- Injection test: Very effective test for diagnosis
- Approx 7-10 ml of Xylocaine injected in subacromial bursa
- Wait for 2-3 minutes
- Pain in ROM will be minimal
- D/D between impingement & RC tear



Ultrasonography



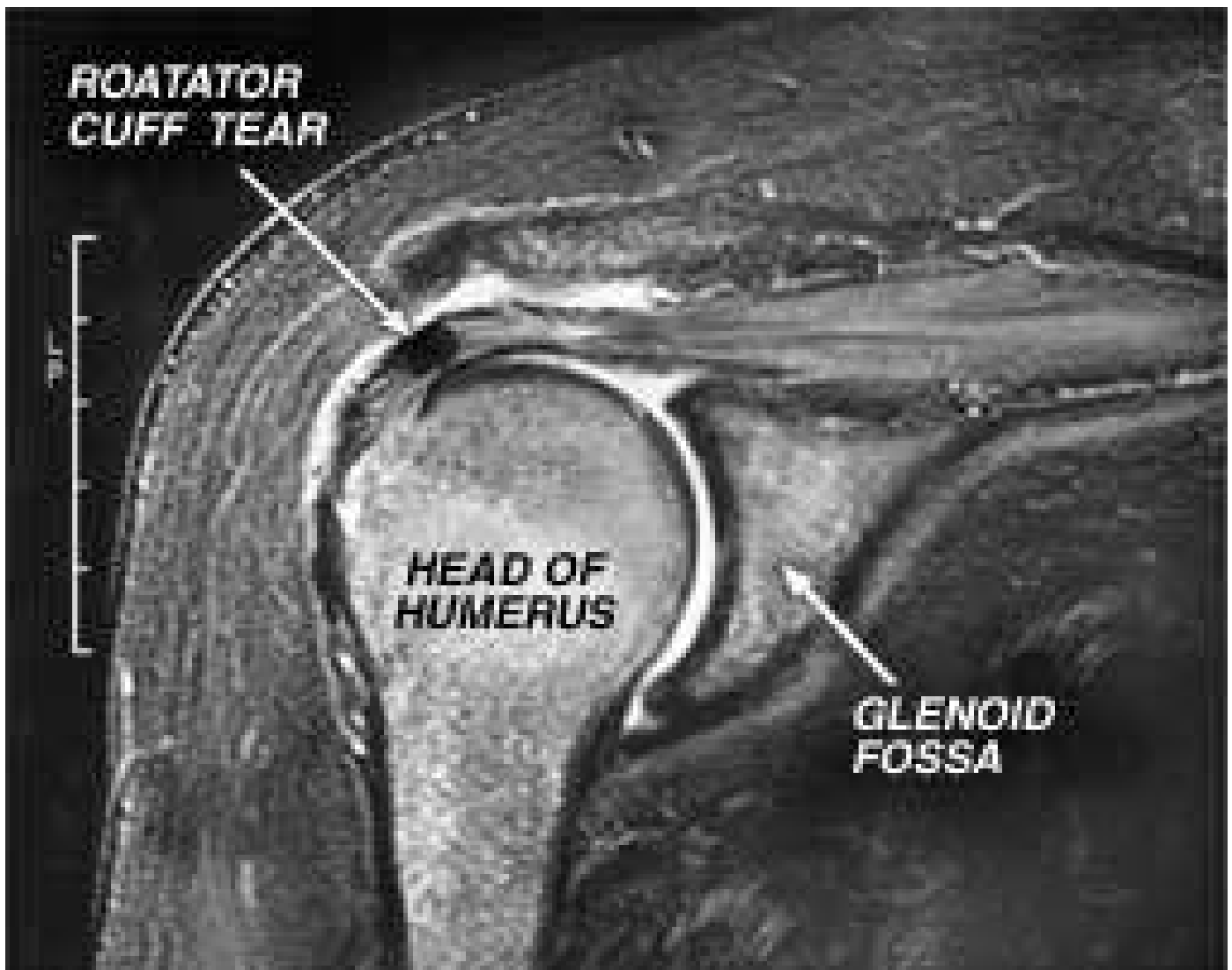
Limitations of techniques

Successful use of ultrasound to examine the shoulder depends on the operator, machine, and patient factors. Knowledge of the relevant anatomy and pathologic appearances and experience in performing the technique are required of operators. Machine requirements are discussed above in Preferred Examination.

As in other regions of the body, ultrasonography of the shoulder is limited in obese patients, and views of the tendons are restricted in patients with severely limited range of movement. Ultrasonography cannot be used to directly image the subacromial space, and it provides no information about the inferior surface of the acromioclavicular joint. Ultrasonography can show the contour of bony surfaces, but no information can be obtained beneath the surface. The subacromial space is not accessible, and pathology, including the retracted end of a torn tendon, cannot be shown in this location. Ultrasonography is less sensitive than MRI to intrinsic changes within the tendon in the absence of a tear.



MRI



MRI of the shoulder provides detailed images of structures within the shoulder joint, including bones, tendons, muscles and vessels, from any angle. Magnetic resonance imaging (MRI) is a noninvasive medical test that physicians use to diagnose and treat medical conditions. MRI uses a powerful magnetic field, radio frequency pulses and a computer to produce detailed pictures of organs, soft tissues, bone and virtually all other internal body structures. MRI does not use ionizing radiation (x-rays). Detailed MR images allow physicians to evaluate various parts of the body and determine the presence of certain diseases. The images can then be examined on a computer monitor, transmitted electronically, printed or copied to a CD.



Surgery Options

When Rotator Cuff Surgery is Recommended ?

Your doctor may recommend surgery for a torn rotator cuff if your pain does not improve with nonsurgical methods. Continued pain is the main indication for surgery. If you are very active and use your arms for overhead work or sports, your doctor may also suggest surgery.

Other signs that surgery may be a good option for you include:

Your symptoms have lasted 6 to 12 months

You have a large tear (more than 3 cm)

You have significant weakness and loss of function in your shoulder

Your tear was caused by a recent, acute injury

The four major objectives are :

- (1) closure of the cuff defect.
- (2) eliminating impingement.
- (3) preserving the origin of the deltoid muscle.
- (4) preventing adhesions postoperatively without disturbing the repair by a careful exercise program

Surgery Management

Option 1 : Open Surgery

Option 2 : Mini Open Surgery

Option 3 : Arthroscopic Surgery



Open & Mini Open Repair

Open Repair

A traditional open surgical incision (several centimeters long) is often required if the tear is large or complex. The surgeon makes the incision over the shoulder and detaches the shoulder muscle (deltoid) to better see and gain access to the torn tendon.

During an open repair, the surgeon typically removes bone spurs from the underside of the acromion (this procedure is called an acromioplasty). An open repair may be a good option if the tear is large or complex or if additional reconstruction, such as a tendon transfer, is indicated.

Open repair was the first technique used for torn rotator cuffs. Over the years, new technology and improved surgeon experience has led to less invasive procedures.

Mini-Open Repair

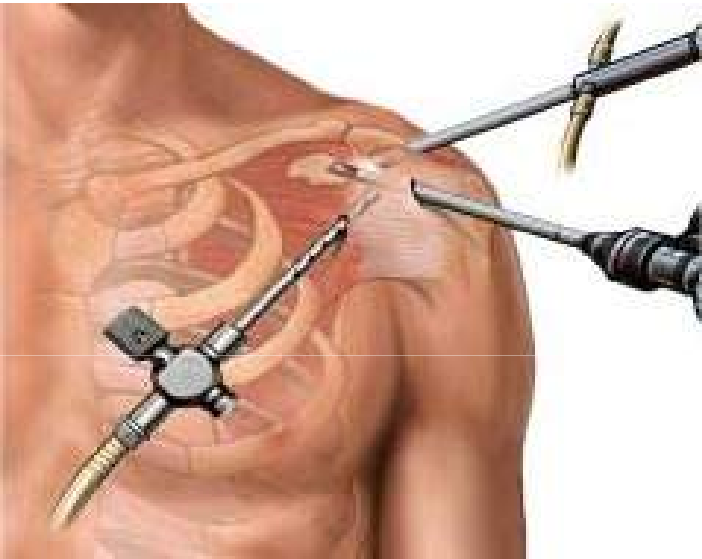
The mini-open repair uses newer technology and instruments to perform a repair through a small incision. The incision is typically 3 to 5 cm long.

This technique uses arthroscopy to assess and treat damage to other structures within the joint. Bone spurs, for example, are often removed arthroscopically. This avoids the need to detach the deltoid muscle.

Once the arthroscopic portion of the procedure is completed, the surgeon repairs the rotator cuff through the mini-open incision. During the tendon repair, the surgeon views the shoulder structures directly, rather than through the video monitor.

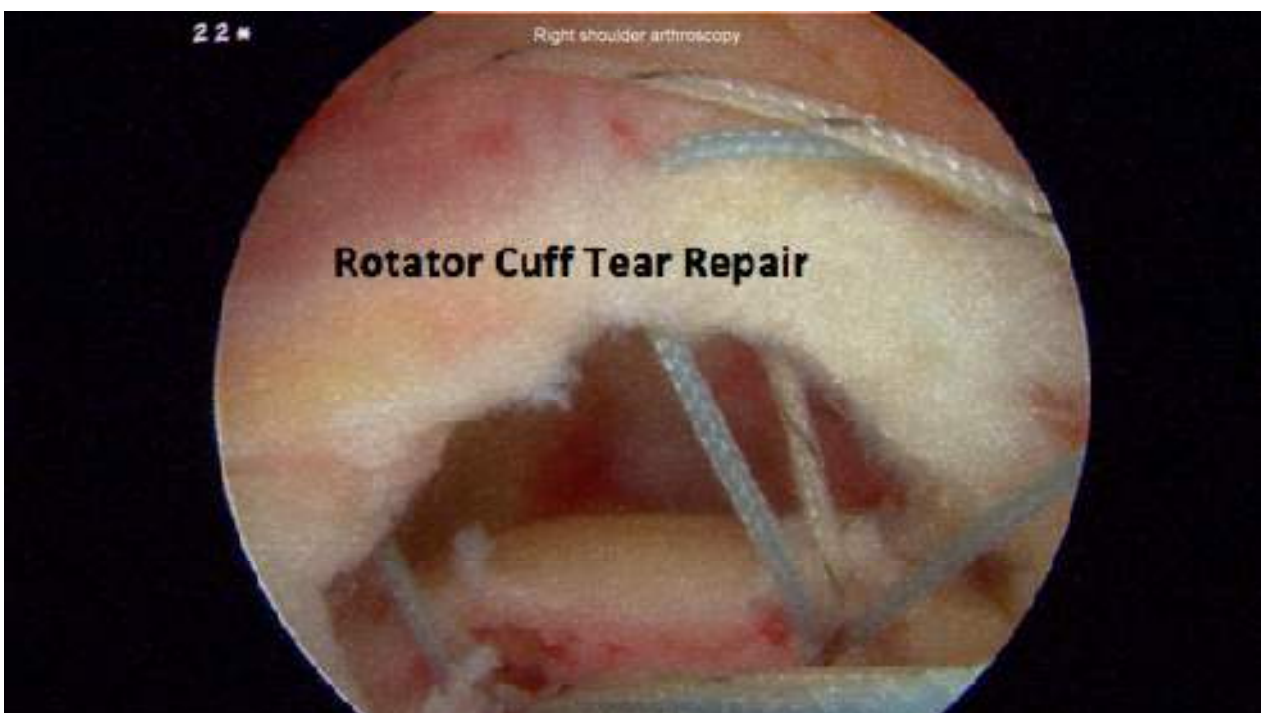


Arthroscopic Repair



During arthroscopy, your surgeon inserts a small camera, called an arthroscope, into your shoulder joint. The camera displays pictures on a television screen, and your surgeon uses these images to guide miniature surgical instruments.

Because the arthroscope and surgical instruments are thin, your surgeon can use very small incisions (cuts), rather than the larger incision needed for standard, open surgery. All-arthroscopic repair is usually an outpatient procedure and is the least invasive method to repair a torn rotator cuff.



How is the procedure done ?

Joint Inspected

The surgeon inserts a small video camera called an arthroscope through tiny incisions in the shoulder to inspect the damaged joint.

Joint Debrided

The surgeon removes any loose fragments of tendon or other debris from the damaged cuff tendon in the joint. This procedure, called debridement, is usually performed arthroscopically. Afterwards, the surgeon inspects the tissue damage in the joint and determines if more surgery is needed.

Acromion May Be Smoothed

If bone spurs have formed on the bottom of the acromion, the surgeon uses a rasp-like tool to smooth the area. This is called subacromial decompression, or smoothing, and will keep the acromion from pinching down on the supraspinatus tendon. It is usually done arthroscopically.

Rotator Cuff Inspected

If no tear is found in the rotator cuff area, the procedure may end here. If the surgeon finds a torn rotator cuff tendon, the type of repair needed is based on the size and severity of the tear. Small to moderate tears may be repaired arthroscopically. Open surgery may be needed to repair large tears. First, the torn end of the tendon is cleaned up. Next, an area on the humerus is cleared.

Anchors Placed

The surgeon uses a drill or sharp tool to create one or more small holes in the bone. Anchors are then placed into the holes. The anchors hold stitches in place on the arm bone.

Tendon Sutured

The tear in the tendon is stitched together. The sutures are pulled tightly against the anchors, reattaching the tendon to the humerus.



FACILITIES

State of the art Equipments & Advanced Diagnostic & Surgical Facilities are available here



Post Operative Care

Rehabilitation plays a vital role in getting you back to your daily activities. A physical therapy program will help you regain shoulder strength and motion.

Immobilization

After surgery, therapy progresses in stages. At first, the repair needs to be protected while the tendon heals. To keep your arm from moving, you will most likely use a sling and avoid using your arm for the first 4 to 6 weeks. How long you require a sling depends upon the severity of your injury.

Passive Exercise

Even though your tear has been repaired, the muscles around your arm remain weak. Once your surgeon decides it is safe for you to move your arm and shoulder, a therapist will help you with passive exercises to improve range of motion in your shoulder. With passive exercise, your therapist supports your arm and moves it in different positions. In most cases, passive exercise is begun within the first 4 to 6 weeks after surgery.

Active Exercise

After 4 to 6 weeks, you will progress to doing active exercises without the help of your therapist. Moving your muscles on your own will gradually increase your strength and improve your arm control. At 8 to 12 weeks, your therapist will start you on a strengthening exercise program.

Expect a complete recovery to take several months. Most patients have a functional range of motion and adequate strength by 4 to 6 months after surgery. Although it is a slow process, your commitment to rehabilitation is key to a successful outcome.



Rehabilitation

After you have been treated for your condition, we want to ensure that you heal properly and regain strength. Our rehabilitation team will work with you in a private setting, at your own pace and comfort level, so that you can return to your daily lifestyle. Through exercises and training, our certified physical therapy team is here to help you get back to the things you love.

Your post operative care takes place here



What is the recovery time ?

Post-Operative Period up to 6 weeks

Immediately after the operation, you will be encouraged to keep the shoulder as still as possible. Pain will vary from person to person and depend on the extent of the repair to the shoulder. The frequent application of cold packs to the area will help to reduce the swelling and the pain.

The first phase of recovery can potentially last up to 6 weeks after the surgery. You will be instructed to keep the shoulder as immobile as possible and to keep your arm in a sling. The use of the sling keeps the weight of your arm off of the tendon which assists in the healing process.



After some time, and according to your individual needs, your surgeon will advise you to attend **physical therapy sessions**. During these sessions the therapist will perform exercises that involve passive movement of the joint. Passive movement involves no contraction of the muscles. It is particularly important that the bicep muscle not contract during this period. The therapist will move the arm gently for you, without putting undue strain on the joint. They will also instruct you on how to move, while avoiding the contraction of muscles around the joint. This gentle movement is encouraged in order to prevent the formation of scar tissue that would form if there were no movement in the joint. Formation of scar tissue will limit movement in the joint.

6 to 12 Weeks

During the following 6 to 12 week period, you will be allowed to perform a limited range of arm movements. You will not be able to lift or push heavy objects as, even after this amount of time, placing this sort of strain on the joint may cause the sutures anchoring the tendon to the bone to pull out. You should avoid supporting your body weight using the affected arm.

3 to 6 months

This is the period during which you will begin to strengthen the muscles in the arm after the relatively long period of inactivity. This is essential to your full recovery. However, caution must still be taken to not to place too much strain on the joint, as the attachment of the tendon to bone will still be in the process of healing. There are a number of light but effective exercises that will be provided by your therapist to slowly strengthen the weakened muscles.

As stated previously, duration of post-operative recovery will differ from person to person and differ depending on the extent of the repair required. In all cases the instructions given to you by the orthopedic surgeon must be followed very strictly in order to minimize the risk of complications and regain the full range of movement in your shoulder.



Future Developments

Dissolvable Anchors

Many orthopaedic surgeons have begun to use dissolvable anchors. Anchors hold stitches in place in the bone until the repair has healed. Dissolvable anchors are gradually absorbed by the body.

Arthroscopic Techniques

Future developments in the treatment of rotator cuff disease include newer arthroscopic surgical techniques. These allow more secure repairs that may improve the rate of tendon healing.

Orthobiologics

One of the most exciting areas of research is orthobiologics. These are tissue grafts and injections that promote growth of new tissue in the body and foster healing.



Outcomes of Rotator Cuff Tear Repair

Satisfaction rates
are over 80-95%
with improved range of
motion and strength.

Approximately 6-30% will have a re-tear of the repair, however many of these remain asymptomatic. Outcomes are improved with earlier repair, smaller tears, patient age, and patient compliance after surgery.



A life changing experience

I had been having trouble with my shoulder for years. I had cortisone injections, physical therapy and medications and it only got worse. This past year I saw Dr Santosh and he found a rotator cuff tear which was missed earlier on an MRI by another physician. I had the surgery done and I am so happy with the results. It is a very tough surgery and long recovery but Dr Santosh is fantastic. He explains everything to you and what to expect. He answers any concerns and sees you regularly to make sure of your progress. I have recently been discharged as I have full range of motion and no pain at all. I feel fabulous. I can do things now I couldn't do before surgery. I am so pleased with the outcome and felt so well taken care of through the entire process.

- A patient who underwent Arthroscopic Rotator Cuff Surgery



SECTION B



What The Press Says : Set 1

THE TIMES OF INDIA

21 November, 2013

New surgery boon for knee patients

TIMES NEWS NETWORK

Kolkata: The periods of hospitalization and recovery for knee-replacement surgery patients have come down significantly, thanks to improved techniques and quality implants. Such surgery was conducted on three patients at Belle Vue Clinic on Wednesday.

Earlier, a knee-replacement surgery meant at least six days of post-operative hospitalization and the patient would be able to walk only four days later. But now, patients can stand up within hours of the surgery and start walking on the second day.

While doctors in the city have been performing minimally invasive surgery for quite some time now, minimally invasive computer-assisted total knee arthroplasty was performed on three patients—Sambhunath Bit (52), Meena Devi Chowdhury (65) and Chhaya Chattopadhyay (72)—at Belle Vue on Wednesday.

“Computer-assisted total knee arthroplasty and minimally invasive surgeries have been performed in the city, but independently. Minimally invasive



A patient after surgery

computer-assisted total knee arthroplasty is being done in Belle Vue Clinic for the first time in eastern India,” said Dr Santosh Kumar who performed the surgery, one of them live, on Wednesday.

The conventional procedure enabled the patient to stand up on the third day of surgery, walk on the fourth day and get discharged from the hospital either on the fifth or the sixth day. But minimally invasive surgery enables the patient to stand within a few hours of the surgery, walk on the second day and walk out of the hospital on the third.

The Telegraph METRO

29th January, 2013

Tech boost for surgery

OUR SPECIAL CORRESPONDENT

Hip and knee replacement surgeries in the city will now be more precise and less risky with a new computer-navigated technique that can tell from outside the exact position of bones and the alignment of ligaments.

Belle Vue Clinic on Monday claimed to be the first in the city to introduce the “fourth generation” machine from Germany. The new technique will make the surgeries at least 10 minutes longer. “It has more checks and balances and so it takes more than the standard one-and-a-half hours for other

computer-assisted procedures,” said Santosh Kumar, orthopaedic surgeon and head of the joint replacement surgery unit at Belle Vue.

Computer-navigated surgeries have been conducted in Calcutta since 2006, but the German technology promises to increase the accuracy of knee-replacement surgeries from around 80 per cent to up to 95 per cent, say doctors.

The machine maps the position of bones in the knee joint using sensors. These sensors create a detailed image and provide information on a computer screen that help the surgeon install the implant. “The equipment not only

takes into account the bones but also aligns soft tissues like ligaments. So there is less chance of damage to ligaments and other uncertainties too,” Kumar pointed out.

Buddhadeb Chatterjee, orthopaedic surgeon with Apollo Gleneagles Hospitals, said the software would make things easier for surgeons. “Steps like bone registration are not required. Bone registration is a process in which pointers are rubbed on the bones and the images are transferred to the computer through infrared,” said Chatterjee.

He said the software was more precise and therefore better results were expected.

THE ASIAN AGE

21 November, 2013

Advanced knee surgery raises patients' hopes

AGE CORRESPONDENT KOLKATA, NOV. 20

For the first time in eastern India, Minimally Invasive Computer-Assisted Total Knee Arthroplasty (MICA-TKA) surgery was performed on three patients on Wednesday. The knee surgery reduces recovery time for patients.

The surgeries were performed at Belle Vue Clinic under the supervision of Dr Santosh Kumar. Interestingly, the live surgery performed on the knee of 72-year-old Chaya

Chatterjee was shown on a giant screen at the clinic. It was a unique way to introduce one of the best medical advancements.

This latest (MICA-TKA) procedure enables patients to stand up on his feet on the same day of the surgery, climb the stairs on the second day and are released on the third day. While the conventional procedure takes at least seven days' time for the knee of a patient to function properly.

According to Dr Kumar, the knee transplant is useful

for professionals who need a high performing knee.

“The surgery results in fantastic tackling of knee cap bone which leads to improved and full knee bending.

“With this knee transplant, people now will be able to use public transport, indulge in sports activities and lead a normal life,” said Dr Santosh Kumar, who is also the head of the clinic's Computer-Assisted (Navigated) Joint replacement Centre.

The Statesman

KOLKATA, THURSDAY 21 NOVEMBER 2013

Urgent joint replacement at prominent city hospital

STATESMAN NEWS SERVICE KOLKATA, 20 November

Good news awaits for people requiring urgent joint replacement and expecting a speedy recovery. The Belle Vue Clinic has introduced a minimally invasive procedure, which would take one-and-a-half hours to conduct knee surgeries and more importantly, the patient would be able to stand on his feet on the same day of the surgery.

A team of doctors led by Dr Santosh Kumar, who performed a live surgery before a battery of media persons at the Belle Vue today said, “The minimal invasive technique is less time taking and the patient can stand on his feet on the same day of the surgery and can walk or climb stairs on the second day.”



total knee arthroplasty has been done for the first time in the eastern part of the country. Unlike conventional surgeries where the patient takes a longer time to heal, the latest procedure not only saves time, but also leads to a very minimal blood loss,” said Dr Kumar, the head of computer-assisted (navigated) joint replacement

centre at Belle Vue. He further said, the transplant costs a little more than Rs 1 lakh, and can last for several years. “The treatment is of immense help to those who are at the peak of their professional lives and look for early recovery. They can resume normal life within a few days of surgery.”

THE ASIAN AGE

29th January, 2013

KNEE JOINT REPLACEMENT MACHINE UNVEILED

AGE CORRESPONDENT KOLKATA, JAN. 28

The world's most modern and advanced knee joint replacement navigation machine, OrthoPilot, an innovation to make knee and hip surgeries accurate and mathematical was unveiled on Monday at Belle Vue Clinic.

Made in Germany, the

fourth generation machine is said to be the first of its kind in eastern India. Consultant orthopaedic surgeon and head of KIMS, Hyderabad, Dr Krishna Kiran said: “It's the precision which has enhanced with OrthoPilot. It is more accurate as machine allows error-free surgery.”

hindustantimes

29th January, 2013

NOW, COMPUTERS AID IN JOINT REPLACEMENT SURGERY IN CITY

HT Correspondent

letters@hindustantimes.com

KOLKATA: Belle Vue Clinic installed ‘orthopilot’; on Monday, the fourth generation navigation system that helps doctors eliminates human errors in hip and knee replacement and corrective surgeries.

“The machine's efficiency is much higher than the devices normally used for knee and hip replacement surgeries. Orthopilot is a hi-tech machine for enhancing precision during surgeries,” Dr Krishna Kiran, director, Institute of Computer Assisted Joint Replacement Centre, Hyderabad, said during the launch of the German-manufactured device.

“Prior to computer-assisted devices, we couldn't be certain that an implant would be placed in the optimal position. It allows easy minimally invasive surgery, decreasing recovery time and post-operative pain,” he said.

The increased accuracy also help increase the life of the implants, while causing less blood loss in the patient. In fact, most patients are able to walk one day after the surgery.

Stating that Orthopilot is a powerful surgical tool that combines dedicated software with superior instrument design, knee

surgeon, said Dr Santosh Kumar, head of the institute of Computer-assisted (navigated) joint replacement centre at the clinic.

“It guides a surgeon to make precise cuts in the joints and remove deformities, by using infrared camera. It gives patient specific information during surgery while virtually eliminating expensive and radiation intensive CT and MRI scans before the surgery,” Dr Kumar added.

THE TIMES OF INDIA

29th January, 2013

Orthopilot for accurate joint surgery

Kolkata: Have someone in your family, who needs to undergo a hip or knee joint replacement surgery? Yes, these surgeries are common in the city now but precision levels depend on the surgeon's eyes. Hence, many patients complain of problems post surgery as the replaced knee is misaligned. So, those asked to go under the scalpel may harbour apprehension after hearing tales of misalignment.

But help is at hand in the form of a computer-guided orthopilot. The fourth generation hip and knee joint replacement navigation machine was inaugurated at the Belle Vue Clinic on Monday. Housed in the hospital's Institute of Computer Assisted

(navigation) Joint Replacement Centre, the orthopilot is the first in eastern India.

The institute's head, Dr Santosh Kumar, said: “Orthopilot eliminates uncertainty and enhances precision. It also enhances long term results as deviation from goals during surgery is eliminated and the implants survive 1.5 to two times longer.” According to him, a replaced knee under conventional surgery lasts 8-10 years, while one implanted with an orthopilot stays intact for 15-20 years. The costs under both techniques remain around the same—Rs 1.80 lakh. The same surgery costs Rs 15 lakh in Indian currency in the UK, he said.

News About Dr.Santosh Kumar, About Ortho Pilot & Advanced Procedures Done By Him



POORVA ORTHOPAEDIC

Patients' Experiences [All Ortho Procedures]



**Maya Ghosh, 66 years
Kolkata**

"I had been suffering from knee pain for last one year. It was difficult to walk. I heard of Dr. Santosh Kumar from my friend and got my knee operated. I now can walk. My friend too is well now. Thanks to Dr. Kumar".



Mr Das, Ulta Danga, Kolkata

Operated for Rheumatoid Arthritis of knee. Total knee replacement done in may 2012. Retired but socially very active, was crippled and home bound, till he started moving out after knee replacement. He says, " it feels as if my age has reduced by 20 years".



Prem Lakhani, 75 years, Kolkata

"I had long knee problem . I consulted Dr. Santosh Kumar. I was operated on 7 Jan, 14, detained in hospital for 4 days and started walking within 4 days. No pain and I am walking almost normally. I am back to normal work. Thanks to Dr"



Parbati Roy, 67 years, Kolkata

"I am 67 year. I have been suffering since 2005 and was under medication. In Oct 2013, I was almost crippled. At this stage, one of my cousins suggested for Dr. Santosh Kumar. He operated my right knee and my left knee was operated in next July. Am fine now"



Sister Jaya, Belle Vue Clinic

"Working as in-charge nurse had become so painful till I saw some operated cases by Dr Kumar and their results at our hospital. I decided to go for Knee Arthroplasty(replacement). Am happy that within a month I joined back my work with confidence."



Mr Banerjee, Beliaghata, Kolkata

An retired footballer says, "knee pain and stiffness had crippled my life in sharp distinction to the joy of playing football in my early age, actually I had suffered from ACL injury which accelerated osteoarthritis. I am happy that the joy of movement has been restored".



Arun Kumar Jana, 71 years

"I have been suffering from knee pain since 2005. I got Dr. Santosh Kumar's contact through internet. He advised for knee replacement. Although I was scared by many, yet Dr. Kumar explained all in details and operated. He and his team had been cooperative".



Prof. Malabika Deb

After the knee replacement, I can climb up the stairs and walk. Feeling much better...



A Patient rides a bicycle with ease after undergoing Knee Replacement by Dr. Santosh Kumar using Orthopilot, an advanced computer navigation procedure.

More Patients Experiences & Testimonials can be provided on request



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9	HDFC Standard Life Insurance Company Ltd.
10	ICICI Prudential Life Insurance Co. Ltd.
11	IDBI Fortis Life Insurance Co, Ltd.
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23	ICICI Lombard General Insurance Co. Ltd.
24	IFFCO Tokio General Insurance Co. Ltd.
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26	Reliance General Insurance Co. Ltd.
27	Shriram General Insurance Company Limited
28	Royal Sundaram Alliance Insurance Co. Ltd.
29	Tata AIG General Insurance Co Ltd
30	The New India Assurance Co. Ltd.
31	The Oriental Insurance Co. Ltd.
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33	Universal Sompo General Insurance Co. Ltd



Almost All Insurance Companies & Majority of TPAs Accepted By Us



Consult the Doctor via Online or Video Conference

Dr. Santosh Kumar is available for video conference with the patients for better understanding between the patient and the doctor. What you need to do is to fill in the form in the website [format given below] and submit. You will be intimated duly over phone/through mail the date and time for video conference.



You need to have Skype (free software for video conferencing) downloaded in your computer. Now add Dr. Kumar in the contact with his ID, E-mail and Phone No that will be communicated to you. You should have a web camera attached to your computer. You can interact with the doctor at the pre appointed date and time.

* Name :	<input type="text"/>
* Address :	<input type="text"/>
* City :	<input type="text"/>
* Pincode :	<input type="text"/>
* Phone :	<input type="text"/>
* E-mail :	<input type="text"/>
* Why do you want to go for video conferencing with the doctor :	<input type="text"/>
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>



For Outstation Patients

If you reside outside of Kolkata, you can contact us in either of these ways :



Online Consult with Doctor.

Please check our website for details



Video Conference with Doctor

Kindly go through the Video Conference page



Tele Consult with Doctor

Please call the Helpline numbers



Meet Doctor In Person.

Before surgery / procedure, do meet the Dr in person once.



Patient's Suite / Room

Patient can choose either Suite or Normal room



Treatment Centre Location

This is situated at the heart of Kolkata city



Guest Suite / Room [Family members / Friends accompanying the Patient can choose to stay at this Star Hotel situated adjacent to the Treatment Centre : as per their budget / preference]





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For The Kind
Attention Of

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- Admin. Dept. / Committee Heads
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Para Govt. Bodies

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International Patient Manager / Co-ordinator
Or Email : santdr@gmail.com

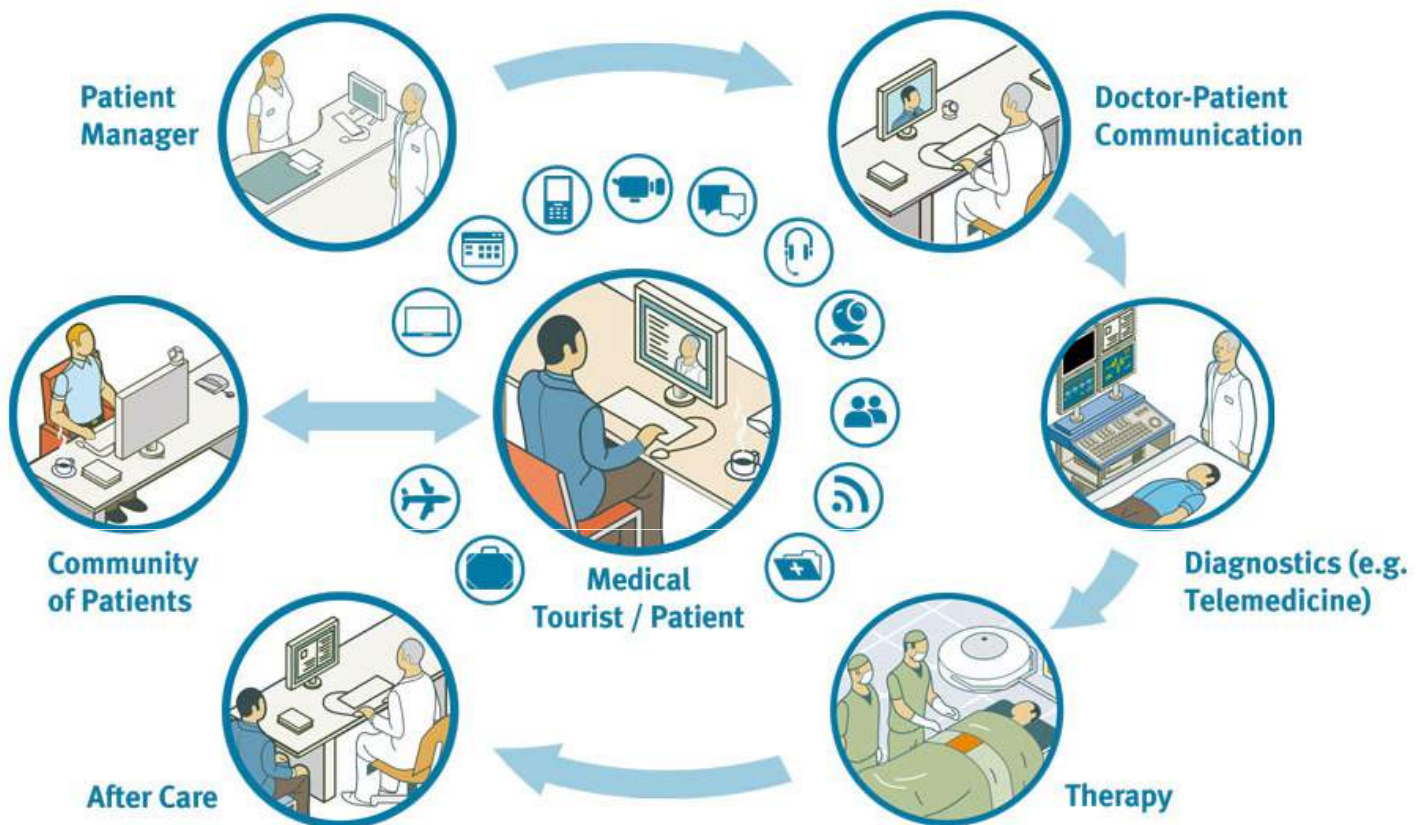


POORVA ORTHOPAEDIC



For International Patients

If you reside outside India, you can contact our Patient Relation Manager who will guide you through these process to make your treatment comfortable.



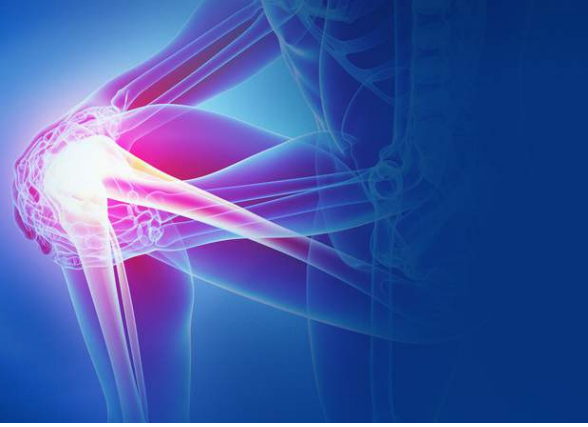
Please Call : +91 98363 65632

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The Fees



For Consultation
In Person / Visit

- **Rs 800 INR**
- **\$ 13 [US Dollars]**

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With Digital X-Ray

- **Rs 1,000 INR**
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With Doctor

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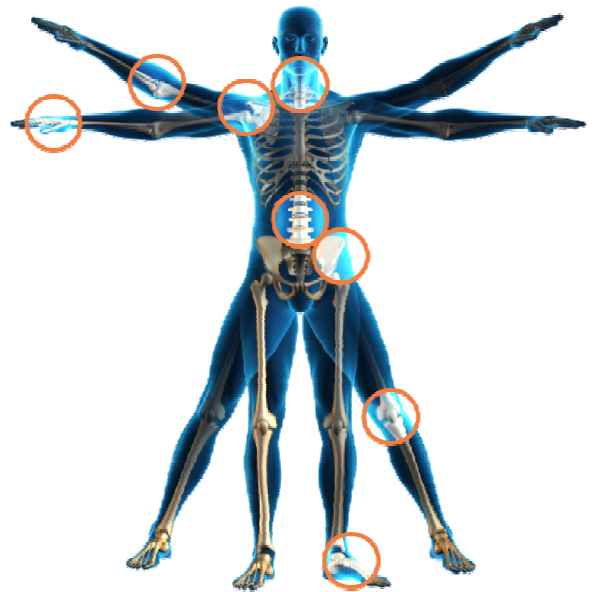
Please Call : +91 98363 65632 [Patient Relations Manager / Co-ordinator]
Or Email : santdr@gmail.com



About the Foundation

Poorva International Orthopaedic Foundation was created as a health charity dedicated solely to help people build, maintain and restore their bone and joint health. We do this by raising and allocating funds for the research, education, treatment and care that help patients to live and move independently - longer and stronger.

We invite you to help us in whatever capacity you can to fight against orthopaedic diseases & disorders. Your participation helps the tens of thousands of people living with pain, isolation, unhappiness and an inability to enjoy life due to bone and joint disorders such as arthritis, osteoporosis and injury.



Founded in 2014, Poorva Orthopaedic Foundation is a national registered charity powered by professional staff and network of volunteers. The Foundation is Kolkata's only health charity dedicated solely to helping people maintain and restore their bone and joint, or orthopaedic health.

What we do

Poorva Orthopaedic Foundation raises money through the trustees' donations and invests those funds in programs to advance orthopaedic research, promote patient and public education, and improve community care.

The Foundation is committed to patient education and to providing patients and their families with accurate, up-to-date information that will make going through orthopaedic surgery a little easier and less frightening.

Our Vision:

To be Patients' voice for bone and joint health.

Our Mission:

To achieve excellence in bone and joint health, mobility and function for all patients through the advancement of research, education, and care.

Our Values:

People: We work in the interest of orthopaedic patients, their families, and the professionals who treat them and for the future of any Individual who may require orthopaedic care.

Making a Healthy Difference: We contribute to the health of our communities and our nation by working with volunteers, patients, professionals, government and industry toward timely and quality access to bone and joint care.

Good Governance: We are committed to excellence in the governance of our organization and will do so ethically, morally, according to the law, and towards the achievement of our Mission.

Help to keep people on the move!





**POORVA INTERNATIONAL
ORTHOPAEDIC FOUNDATION**



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7 Loudon Street, Kolkata 700 017,
West Bengal, India

Regd. Office : Beliaghata, Kolkata 700 010