

COMPUTER ASSISTED JOINT REPLACEMENTS

A PERFECTIONIST TREND (NAVIGATION)

Joint Replacements are the age old procedures with the highest success rates in the orthopaedic world. With the advent of Replacements the "painful, crippling & non mobile aged world" has changed into an "Young, PAIN FREE & MOBILE WORLD"

As we all know, in arthritis the articulating Surfaces are eroded with aging/disease & deformed, leading to severe Painful, deformed & difficult walking pattern(style).

In any Joint Replacements the Eroded/Damaged Joint Surfaces are replaced with a new Modern Implants, giving the PAIN FREE, Most Stable & Mobile joints for the ease of walking and day to day activities.

As the Science Developed & evolved, as the Experience enriched with the ease of modern equipments, the complications have come to minimum or can even be termed as limited or have come to stand still. Added on with the evolution of the pre operative planning, Sterilisation Techniques, operating Theaters, Operating time, Post operative Anaesthesia & the Early mobilisation & faster rehabilitation [Fast Track Technique] - Patients Compliance has been amazing.

The initial Experience & the advent of the Modern Science was completely devoted to the implants - "Leading on to the changes in the materials, designs & to an extent implants lasting for life (30+years)", the evolution & the modernisation continuing.

As the Experience Flourished we "The Surgeons" - Started understanding that the longevity of the Implant is just not dependent on the Material(Implant) used, also has equal importance with the surgical technique & the placement of the Implants.

With the Experience & the thinking process in the Back yard came in the role of computer leading on to the

"NAVIGATION ASSISTED JOINT REPLACEMENTS"

With the advent of the Modern Science & the Persistent concern for the patients, to give them the best, has made the Medical Professionals to get in with the Modern Technology - to give the best - whom we care the most.

What Exactly is done in Navigation:

In joint Replacements, the Trackers/Transmitters will be placed over certain Anatomical land marks pertaining to the joint.

The Navigation System will be set up to that particulars joint & the Patient data will be enrolled even specifying the side to be operated.

The anatomical land marks or the reference points of the specific joint "Hip or the Knee" will be

registered with the points/tracker as this will be specific for each individual this would be the most Significant step in Navigation. All the Reference Points will be registered by the Infrared Camera of the Navigation System.

Once the Registration is done the determination of the centre of the Joint & the Mechanical axis is done in an anatomical way with the help of the Navigation System.

Following this the Instability of the Joint & the amount & the angulation of the cuts are predetermined.

This helps the Surgeon in determining the amount of the Soft tissue releases to be done & also the amount of cuts to be taken ensuring the minimal bone loss. Each & Every Step of the Surgery will be pre checked by the Navigation System acting as the Idle Security Check at every Step/Point of Surgery.

As we all know along with the implant, the Positioning of the Implant also plays an Significantly important role in determining the longevity of the Implant & the anatomical placement helps in the case of faster rehab, the

Navigation has the advantage of on table / Intra Operative Determination of the Surgical technique & the check of perfect positioning of the Implant.



Dr. Kirthi Paladugu
Joint Replacement & Arthroscopy Surgeon
Srikara Hospitals
Ph: 040 -4747 0000

The Advantages of the Navigation Replacement Surgeries of Hip & Knee:

- Anatomical, preciss positioning, placement of the Implants - Giving the Most Stable. Least Chances of Dislocation, Faster Rehabilitation.
- Near Normal Range of Motion
- Minimal wear & loosening - longevity for life
- Enables Minimally invasive Surgery
- Determining the Mechanical & Anatomical Axis in Significant Deformities
- Abandoning the Implant Removal in periarticular Fractures & Implants inside in prs with old surgeries.

Why Don't Every one use Navigation

- The Initial Long learning curve for Surgical Expertise
- Extensive & Expensive Investment for the Navigation System
- Increases the operating time

Looking into the advantages & the limitations of Navigation - We the SRIKARA Family are happy to give the best to our Patients with the extensive experience in the Navigation Assisted Joint Replacement Surgeries without burdening the expenses on our Patients.

We are very proud & happy to introduce the Hip Navigation the only group to have the Navigation at both the centres - Shows the advent of the Modernisation at par with the other parts of the world & always being the Patient Centric Care Unit.

