Total Joint Replacement

Hip and Knee Pain

Pinnacle Orthopedics

Pinnacle Medical Network
About Pinnacle Orthopedics and Pinnacle Medical Network

South Louisiana’s Premier System for the Delivery of Musculoskeletal Health Care.

Our talented team and professional staff offer a fully-equipped facility for the comprehensive care of your bones, joints, ligaments and muscles. Our team is dedicated to your complete care, from assessment to full recovery. Our primary goal is your safe return to work, sports, play and the activities of daily living. Allow our medical professionals to advance your orthopedic care.
“It would be embarrassing to get out of a car because everybody had to help me. Somebody would have to pull me up. I felt like this old woman.”

“My life got progressively less active, less fun, and less participative.”

“Just a day on my feet was exhausting and the pain became greater and greater until Advil and ibuprofen and all of those kinds of drugs couldn't numb it out. It just got worse and worse.”
Does this sound familiar?
You’re Not Alone

More than 43 million people have some form of arthritis. It is estimated that the number of people affected by arthritis will increase to 60 million by 2020.

Source: CDC
This information will touch upon the following topics:

- Understanding the Causes of Joint Pain
- Treatment Options
- What Joint Replacement Surgery Involves
- Realistic Expectations After Joint Replacement
A Normal Knee

- Femur (thigh bone)
- Patella
- Healthy Cartilage
- Tibia (shin bone)
A Normal Hip

Pelvic Bone

Healthy Cartilage

Femur (thigh bone)
Did you know?

Nearly 21 million Americans suffer from osteoarthritis, a degenerative joint disease that is a leading cause of joint replacement surgery.

Source: [www.arthritis.org](http://www.arthritis.org)
Most Common Types of Arthritis

- Osteoarthritis
- Rheumatoid Arthritis
- Post-traumatic Arthritis
- Avascular Necrosis
OA Symptoms

- May develop suddenly or very slowly
- Arthritis can cause pain and stiffness
- Some types of arthritis may cause swelling
- Simple tasks may be difficult to do
An Arthritic Knee

- Femur (thigh bone)
- Diseased Cartilage
- Tibia (shin bone)
An Arthritic Hip

Pelvic Bone

Diseased Cartilage

Femur (thigh bone)
Rheumatoid Arthritis, Post-traumatic Arthritis, Avascular Necrosis

- **Rheumatoid Arthritis**
  Membranes or tissues lining the joint become inflamed

- **Post-traumatic Arthritis**
  Irregularities lead to more wear on the joint

- **Avascular Necrosis**
  Bone may collapse and damage the cartilage
Rheumatoid Arthritis
Did you know?

*Rheumatoid arthritis is the most crippling form of arthritis:*

- affects approximately 2.1 million Americans
- two to three times more women than men
- average onset for rheumatoid arthritis is between the ages of 20 and 45 years old

Source: CDC
Joint Degeneration

Pain from arthritis and joint degeneration can:

- Be constant or come and go
- Occur with movement or after a period of motionlessness
- Be located in one spot or in many parts of the body
- Be worse during certain times of the day or during certain activities
Joint Degeneration

Interference With Daily Activities
Preparing for your Doctor’s Visit

The Orthopaedic Evaluation

- A thorough medical history
- A physical examination
- X-rays
- Additional tests, as needed
The Orthopaedic Evaluation

Medical History

- A list of all medications you are currently taking
- Information on prior surgeries and/or treatments
- Prior diagnoses
- Family history
The Orthopaedic Evaluation
Physical Examination

The physical examination enables your surgeon to evaluate important aspects of your joints, including:

- Size and length
- Strength
- Range of motion
- Swelling
- Reflexes
- Skin condition
The Orthopaedic Evaluation

X-ray Evaluation

An abnormal X-ray may reveal:

- Narrowing of the joint space
- Cysts in the bone
- Spurs on the edge of the bone
- Areas of bony thickening called sclerosis
- Deformity or incorrect alignment
Normal Knee X-ray

Arthritic Knee X-ray
Normal Hip X-ray

Arthritic Hip X-ray
The Orthopaedic Evaluation

Additional Diagnostic Tests may include:

- Blood tests
- Urine analysis
- Analysis of joint fluid
- Magnetic Resonance Imaging (MRI)
- Bone scan
Treatment Options

- Medication
- Physical therapy
- Arthroscopy – cleaning the joint
- Joint fluid supplements (injections that provide temporary pain relief)
- Partial joint replacement
- Total joint replacement
Medications

- *Aspirin-free pain relievers*–acetaminophen
- *Nonsteroidal anti-inflammatory* (NSAIDs)
- *Corticosteroids*–injection/pill form
  - Quick, effective pain relief
  - *Only use a few times a year; they can weaken bone and cartilage*
Physical Therapy

- Passive range-of-motion exercises may help:
  - Reduce stiffness
  - Keep joints flexible
- Isometric (“pushing”) exercises help build muscle strength
- Isotonic exercises (“pulling”) further increase muscle strength and preserve function
- Daily walking, using a cane or other assistive device
What is Arthroscopy?

Arthroscopy is a surgical procedure used to visualize, diagnose and treat problems inside a joint.

A small incision is made in the patient's skin and then pencil-sized instruments are inserted that contain a small lens and lighting system to magnify and illuminate the structures inside the joint.
Joint Fluid Supplements

Injections that provide temporary relief

- For patients whose joint pain does not improve with medication or physical therapy, "joint grease" injections may provide temporary relief.

- The joint is injected with a joint fluid supplement that acts as a lubricant for the damaged joint.
Partial Joint Replacement

Partial joint replacement is a surgical procedure in which only the damaged or diseased surfaces of the joint are replaced, leaving much of the natural bone and soft tissue in place.

- Post-operative pain may be reduced*
- Recovery period may be shorter than total knee replacement*

Total Joint Replacement

Total joint replacement is a surgical procedure in which certain parts of an arthritic or damaged joint are removed and replaced with a plastic or metal device or an artificial joint.

The artificial joint is designed to move just like a healthy joint.
Joint Replacement

Joint replacement is a treatment option when pain:

- Is severe
- Interferes with daily activities
- Interferes with work
Joint Replacement

Joint replacement is a decision that should include:

- You
- Your primary care provider
- Your orthopaedic surgeon
Did you know?

Total joint replacements of the hip and knee have been performed since the 1960s. Today, these procedures have been found to result in significant restoration of function and reduction of pain in 90% to 95% of patients.

Source: National Development Conference, National Institutes of Health, December 2003
Joint Surgery

May be suitable for patients who:

- Have a painful, disabling joint disease of the joint resulting from a severe form of arthritis
- Are not likely to achieve satisfactory results from less invasive procedures, medication, physical therapy, or joint fluid supplements
- Have bone stock that is of poor quality or inadequate for other reconstructive techniques
Joint Replacement

Preoperative

Preparing for a joint replacement procedure begins weeks before the actual day of surgery.

In general, patients may need:

- Routine blood tests
- Urinalysis
- Physical examination
- Exercise
- Quit smoking
- Stop certain medications
- Donate blood
Joint Replacement

Preoperative

- A general physical examination
- Dental procedures
- Skin condition
- Smoking
- Weight
- Medications
Total Joint Replacement

- Goals of total joint replacement are to help:
  - Relieve pain
  - Restore motion
Did you know?

More than 300,000 knee replacements are performed each year in the US.¹

More than 300,000 hip replacements are performed in the United States each year.²

Your Hip Joint

A joint is formed by the ends of 2 or more bones. The hip must bear the full force of your weight and consists of two main parts:

- A ball (femoral head) at the top of your thigh bone (femur)
- A rounded socket (acetabulum) in your pelvis

Normal hip joint, showing healthy articular cartilage
What Causes Hip Joint Pain?

One of the most common causes of joint pain is arthritis. The most common types of arthritis are:

- **Osteoarthritis (OA)**
- **Rheumatoid Arthritis (RA)**
- **Post-traumatic Arthritis**
- **Avascular Necrosis**
A Replaced Hip

- Pelvic Bone
- Artificial Hip Implant
- Femur (thigh bone)
Total Hip Replacement
Replaced Hip X-ray
Your Knee Joint

Femur – thigh bone
Cartilage – tissue between bones that provides cushioning
Patella – knee cap
Tibia – shin bone
Synovium – tissue that provides lubricating fluid to joint
Ligament – flexible tissue that holds knee joint together
What Causes Knee Joint Pain?

One of the most common causes of joint pain is arthritis. The most common types of arthritis are:

- Osteoarthritis (OA)
- Rheumatoid Arthritis (RA)
- Post-traumatic Arthritis
Total Knee Joint Replacement

- End surface of femur replaced with metal
- End surface of tibia replaced with metal
- Plastic liner is inserted between femur and tibia
- Patella is resurfaced with plastic
A Replaced Knee

Femur (thigh bone)

Artificial Knee Implant

Tibia (shin bone)
Total Knee Replacement
Replaced Knee X-ray

Anterior (front) View

Lateral (side) View
Recovery
Every individual is different and every treatment plan is different. Estimated Recovery Schedule:

- **In-hospital Recovery**: 2 – 5 days
- **Significant Functional Improvement**: 6 weeks – 3 months
- **Maximal Improvement**: 6 – 12 months

The length of hospital stay after joint replacement varies and depends on many factors including age and physical ability.
Recovery
Rehabilitation

Exercise program to be performed in bed and in the therapy department.

The physical therapist or another member of the staff works with the patient to help you:

- Regain muscle strength
- Increase range of motion
When will I be able to go back to a normal daily routine?

This is a decision only you and your surgeon can make. Every patient’s experience is different.
General Guidelines to get back to your Routine

- You'll practice stair-climbing in the hospital and should be able to do this by the time you leave.
- You should have no restrictions on leaving your home as long as your safety and comfort are assured. A good balance of exercise, rest, and relaxation is best for helping your body heal and gain strength.
- When to resume driving a car, going to work, and/or participating in sports activities are all highly individualized decisions.
- Be sure to follow your doctor’s or orthopaedic surgeon's advice and recommendations.
After Surgery

Limitations

For approximately 12 weeks after surgery certain limitations are placed on your activities. When fully recovered, most patients can return to work.

Some types of work may not be advisable for individuals with a joint replacement:

- Construction work
- Certain types of carpentry
- Occupations that involve repeated high climbing
Limitations After Surgery

Athletic activities that place excessive stress on the joint replacement will need to be avoided. Examples include:

- Skiing (snow or water)
- Basketball
- Baseball
- Contact sports
- Running
- Frequent jumping
Realistic Expectations

Physical Activities

After joint replacement, acceptable physical activities should:

- Not cause pain – including pain felt later
- Not jar the joint – running and jumping should be avoided
- Not place the joint in the extremes of its range of motion
- Be pleasurable
Realistic Expectations
Longevity of Joint Replacement

It is impossible to predict in individual cases how long a joint replacement will last. Many factors determine the outcome including:

- Age
- Weight
- Activity level
- Bone strength
For More Information, Contact:

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*Views expressed are solely those of the presenter.*