

# Total Hip Arthroplasty Direct Anterior Approach

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# Objectives

- Learn about presenting complaints
- How is the diagnosis of arthritis made
- Discuss non operative treatments
- What is involved in total hip replacement surgery
- What are the potential benefits with newer techniques such as the direct anterior approach
- Discussion of the process
- Expectations



# Diagnosis

## Medical History

- How and when did the pain start?
- If the pain has occurred before, how was it treated?
- What activities aggravate the pain?
- What activities relieve the pain?



# Diagnosis

## Physical Examination

- Tenderness to the touch
- Weakness in the muscles
- Extent of passive and active range of motion



# Diagnosis

## Additional Tests

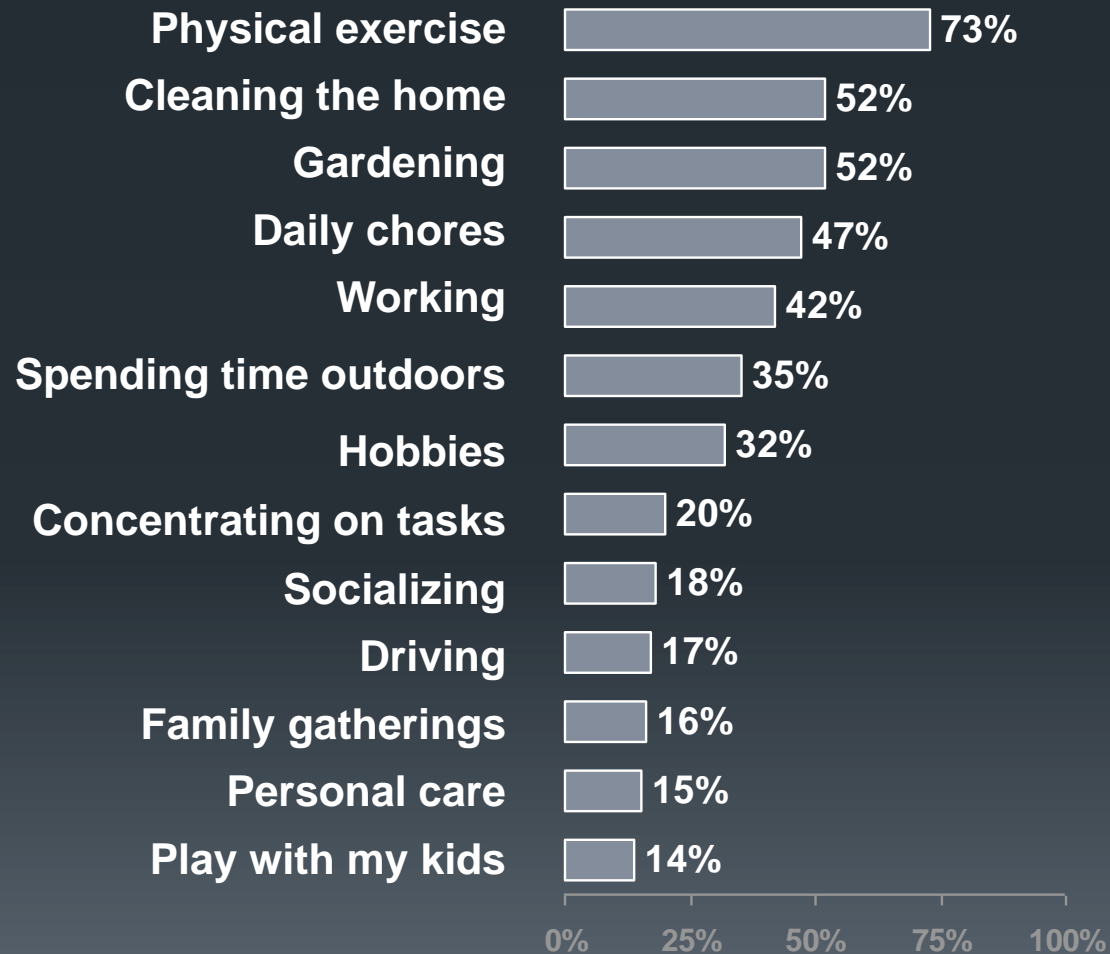
- Blood tests
- Urine analysis
- Computerized Tomography (CT) scans
- Magnetic Resonance Imaging (MRI) scans
- X-Rays



# Types of Arthritis

- **Osteoarthritis**: Sometimes called degenerative arthritis because it is a “wearing out” condition involving the breakdown of cartilage in the joints
- **Rheumatoid**: The joint lining – synovium – swells, invades surrounding tissues, and produces chemical substances that attack and destroy the joint surface
- **Inflammatory**: When joint inflammation is present without other findings to support a diagnosis, the term inflammatory arthritis is used.

# Activities Most Affected by Arthritis & Joint Pain





# Nonsurgical Options

- Diet and Exercise
- Rest and Joint Care
- Cane / Walker
- Medications
- Cortisone
- Glucosamine





## Treatment Options Rest

- Short-term bed rest helps reduce both joint inflammation and pain, and is especially useful when multiple joints are affected and fatigue is a major problem.
- Individual joint rest is most helpful when arthritis involves one or only a few joints.

# Weight Loss

- Average American is 20–40 lbs. overweight
- Average person takes 5000-7000 steps/day
- Reduces stress on weight-bearing joints





# Strengthening Exercises

## Weight Lifting

- Increasing muscle strength helps support and protect joints affected by arthritis.
- Exercise is an important part of arthritis treatment that is most effective when done properly and routinely.

# Range of Motion Exercises

## Stretching

- Maintains normal joint movement
- Increases flexibility
- Relieves stiffness



# Heat and Cold Therapies

- Reduce pain and inflammation
  - Heat Therapy
    - Increases blood flow, tolerance for pain, flexibility
  - Cold Therapy
    - Cold packs, ice massage, OTC sprays and ointments
    - Reduces pain by numbing the nerves around the joint



# Physical Therapy

- The goal is to get you back to the point where you can perform normal, everyday activities without difficulty.
- Preserving good range of motion is key to maintaining the ability to perform daily activities.
- Physical therapists provide exercises designed to preserve the strength and use of your joints.
  - Show you the best way to move from one position to another
  - Teach you how to use walking aids



# Assistive Devices

- Make activities easier and less stressful for the joints and muscles.
  - Splint or brace when recommended by a doctor or therapist
  - Walking aides
  - Orthotics
  - Bath stool for use in the shower or tub
  - Sock grippers
- Other devices are available to assist with everyday activities.

# Medications: Analgesics

- Analgesics, pain relievers, may provide temporary relief of arthritis pain.







# Medications: Topical Pain Relievers

- Over-the-counter patches, rubs and ointments can provide quick pain relief for people with arthritis that is in just a few joints – such as a hand – or whose pain isn't severe.



# Nutritional Supplements

- Glucosamine and Chondroitin may relieve joint pain.
  - Occur in the body naturally; vital to normal cartilage function.
  - Researchers are also studying chondroitin for use in making medicines more effective and helping to prevent blood clots (anticoagulant).

## Not FDA approved

- Warrant further in-depth studies on their safety and effectiveness, according to the Arthritis Foundation.



# Glucosamine and Chondroitin

- May help osteoarthritis pain and improve function.<sup>1, 2</sup>
- Some studies indicate that glucosamine may help as much as ibuprofen in relieving symptoms of osteoarthritis, particularly in the knee, with fewer side effects.<sup>3</sup>

1. Dieppe P, et al. (2002). Osteoarthritis. Clinical Evidence (7): 1071–1090.
2. McAlindon TE, et al. (2000). Glucosamine and chondroitin for treatment of osteoarthritis. A systematic quality assessment and meta-analysis. JAMA, 283(11): 1469–1475.
3. Update on glucosamine for osteoarthritis (2001). Medical Letter on Drugs and Therapeutics, 43(1120): 111–112.

# Side Effects of Glucosamine and Chondroitin

These arthritis supplements are generally well tolerated. However, side effects can occur. The most commonly reported side effects are:

- Nausea
  - Diarrhea or constipation
  - Heartburn
  - Increased intestinal gas
- 
- See your doctor for complete information.



# Glucosamine and Chondroitin

- People with osteoarthritis who have diabetes should talk with a doctor before they take glucosamine because it may influence blood sugar (glucose).
- Do not take glucosamine if you are allergic to shellfish.
  - Glucosamine is made from shellfish covering



# Corticosteroids

- Decrease inflammation
  - Oral
  - Cream (topical)
- Short-term side effects include
  - Swelling, increased appetite
- Long-term side effects include
  - Stretch marks, excessive hair growth, osteoporosis, high blood pressure, infections and high blood sugar

# Injections: Hip Joint

- Not as good of an option as in the knee
- Injections typically require imaging guidance such as ultrasound
- Viscosupplementation therapy commonly used in the knee is not FDA approved for use in the hip
- Steroid injections typically do not help for any significant length of time

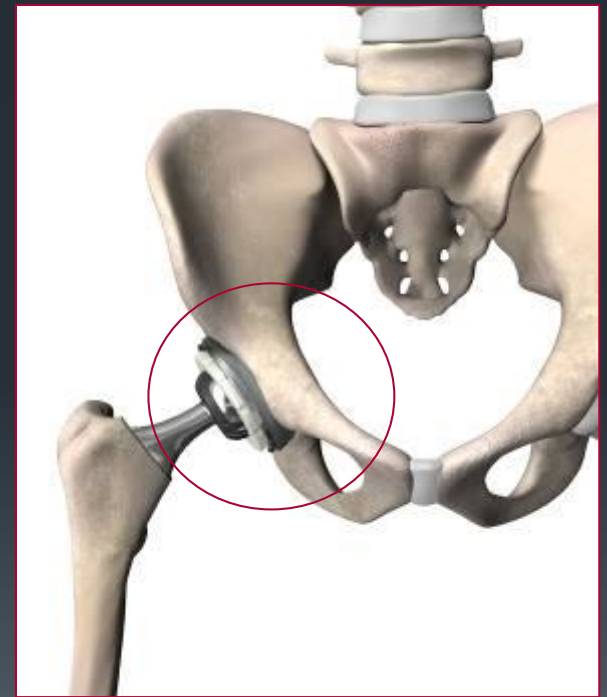
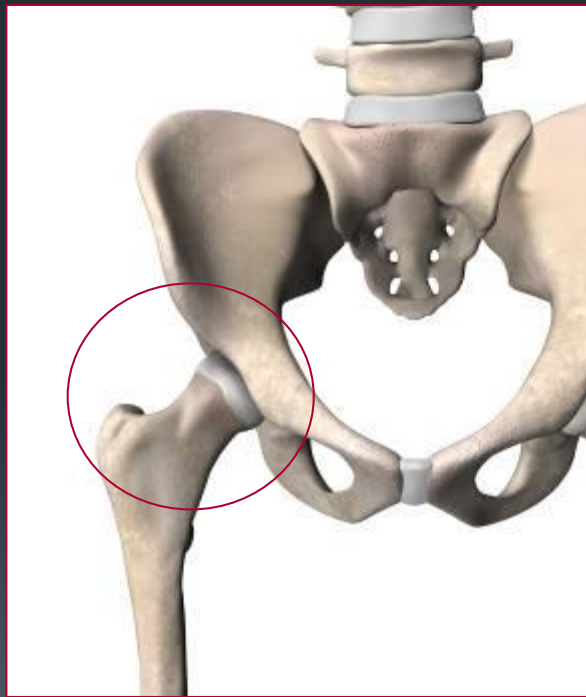


# Surgical Treatment

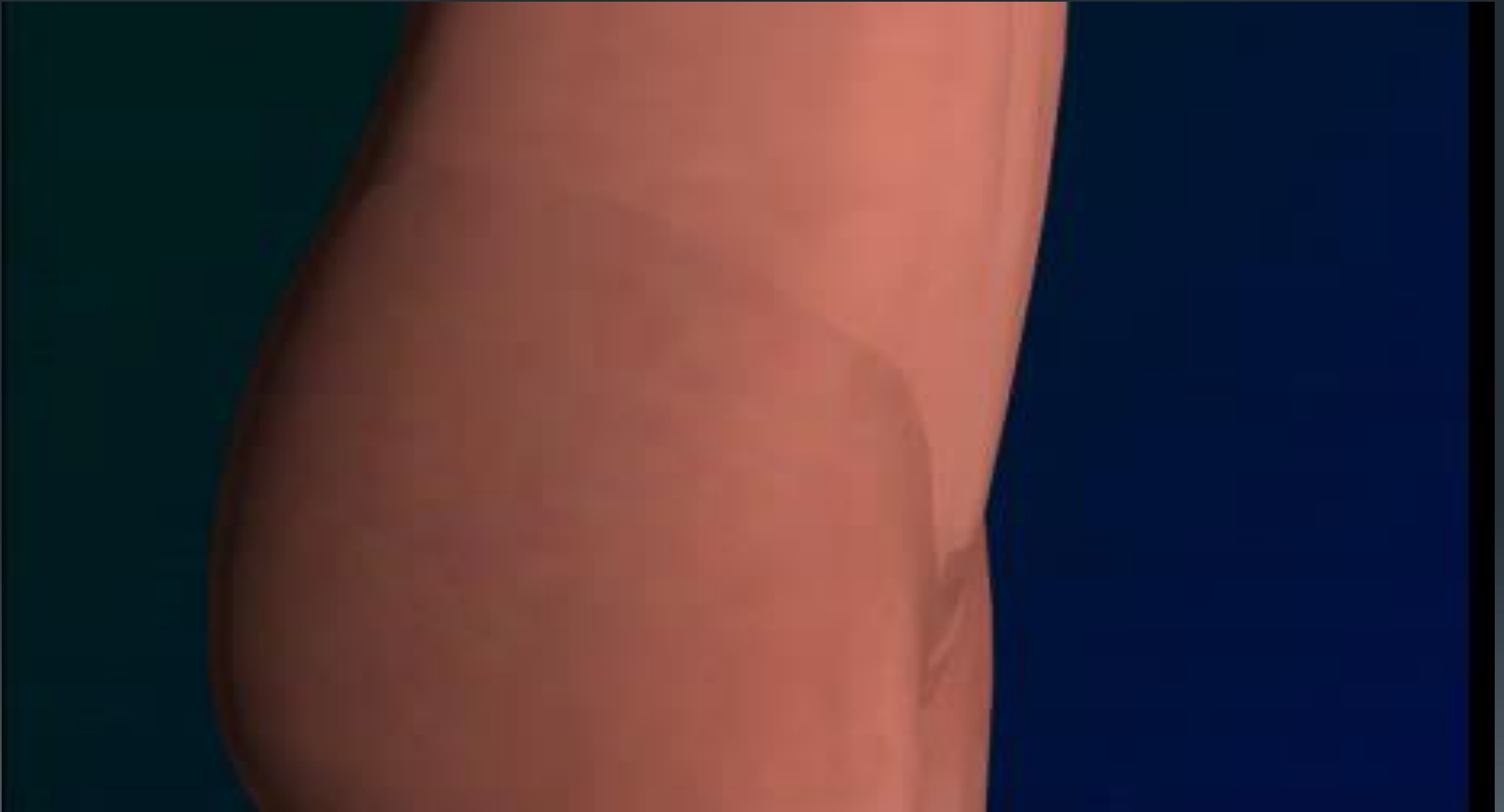
- Total Hip Replacement
  - Great option once nonsurgical options have failed and pain and symptoms have become life-style limiting
- Involves resurfacing both sides of the joint
  - Different approaches
  - Different implants available



# Total Hip Replacement



# Total Hip Animation



# Direct Anterior Approach Definition

- A minimally invasive technique in which the hip is approached without detaching any muscles or tendons

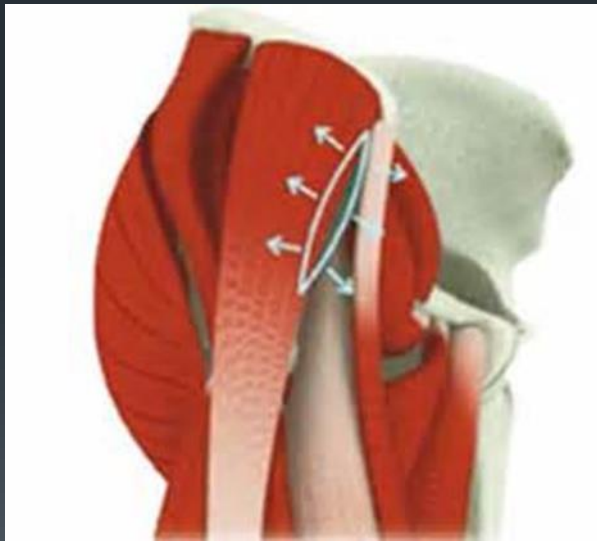


# Potential Benefits

- Decreased hospital stay and rehabilitation
- Shorter recovery due to preserving muscle attachments and smaller incision with less scarring
- Quicker return to normal function due to decreased post operative restriction
- Decreased dislocation rate
- Decreased bleeding, post operative pain, and surgical time
- Surgeon better able to assess leg lengths in the operating room

# Comparisons to Other Approaches

- 3-4 inch long incision vs 8-12 inch incision
- Incision in the front vs on the side or back
- Muscles or tendons not detached



# Comparison to Other Approaches

- Different shaped femoral implants may be used
- Special instruments and operative table are helpful





# Comparison to Other Approaches

## Post Operative Restrictions

- Typically with the Direct Anterior Hip Approach there are no specific restrictions to functional range of motion
- Other approaches – usually with restrictions to avoid bending hip to more than a right angle and avoid crossing legs. Also, use of post operative pillow between the legs is recommended in many cases



# The Process

- Diagnosis
- Decision to proceed with surgical option – joint replacement
- Optimize underlying medical conditions
- Arrange for assistance as needed at home for early post operative period
- Surgery
- Recovery





# Surgery Day

- Check In
- Brought to preoperative holding area and will be seen by anesthesia staff
- Procedure performed
- Intra operatively may be injected with medication for pain control
- After leaving the operating room you will remain in the recovery area until awakened sufficiently then will be brought to your room



# Physical Therapy

- Try to initiate therapy the first day if done early enough in the day
- Recovery seems to be faster in that muscles are not detached at time of surgery
- In most cases based on physical status before surgery, most patient are able to ambulate without ambulatory aids within the first 2 weeks



# Expectations

- Once pain controlled with oral medications and able to mobilize then allowed to go home with outpatient physical therapy or home therapy
- Typical hospital stay is 1 to 2 days.
- Expect improved function, improved motion, and alleviation of pain



# Summary

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- How is the diagnosis of arthritis made
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# For More Information

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