

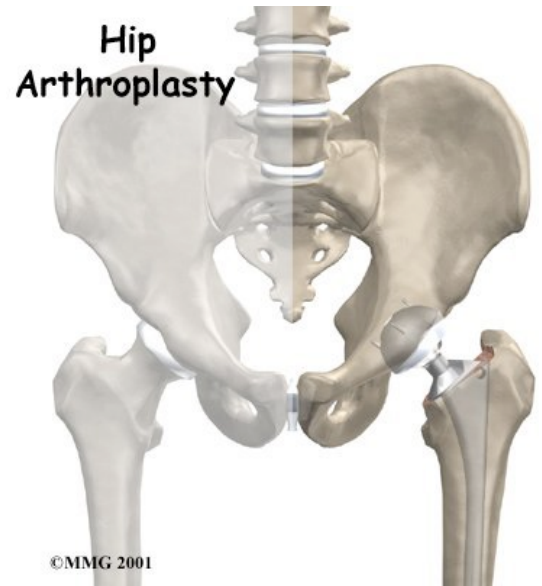
# Therapy In Motion

Physical Therapy With A Personal Touch

## Total Hip Replacement

**Anatomy:** The hip is one of the body's largest weight-bearing joints. It consists of two main parts: a ball (femoral head) at the top of your thighbone (femur) that fits into a rounded socket (acetabulum) in your pelvis. Bands of tissue called ligaments (hip capsule) connect the ball to the socket and provide stability to the joint.

Hip replacement surgery, also called total hip arthroplasty, involves removing a diseased hip joint and replacing it with an artificial joint, called prosthesis. Hip prostheses consist of a ball component, made of metal or ceramic, and a socket, which has an insert or liner made of plastic, ceramic or metal. The implants used in hip replacement are biocompatible — meaning they're designed to be accepted by your body — and they're made to resist corrosion, degradation and wear. Hip replacement is typically used for people with hip joint damage from arthritis or an injury. Followed by rehabilitation, hip replacement can relieve pain and restore range of motion and function of the hip joint.



### Causes/Mechanism of Injury:

- Osteoarthritis
- Rheumatoid arthritis
- Broken hip
- Bone tumor
- Osteonecrosis, (occurs when there is inadequate blood supply to the ball portion of the hip joint)

### Symptoms that might lead you to consider hip replacement include:

- Persistent pain, despite pain medication
- Pain exacerbated by walking, even with a cane or walker
- Poor sleep due to pain
- Difficulty going up or down stairs
- Trouble rising from a seated position
- Inability to participate in formerly enjoyable activities because of pain

### Treatment/Management

#### Blood clot prevention

Early mobilization. This will likely happen the same day as surgery or on the following day.

Weight bearing status should be followed in order to minimize postoperative complications.

### Post Operative Precautions (should be observed for 3 months)

#### Posterolateral Approach ROM restrictions

- Flexion <90
- Adduction
- Internal rotation

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Anterolateral Approach ROM restrictions

- Extension

Physical therapy postoperative treatment

- NMES of hip abductors and external rotators
- Gait training
- PROM within hip precautions
- Myofascial release
- Strengthening of lower extremity musculature
- Core strengthening
- Massage
- Ambulation
- Balance and proprioceptive training
- Cardiovascular training

**THERAPEUTIC GUIDELINES:**

- Passive range of motion (ROM) allowed immediately post-operatively following precautions
- Patient to keep leg in a neutral position (when sitting or supine, foot facing towards ceiling, not rotating out to the side) for the first 6 weeks
- Active hip abduction allowed immediately
- Prone lying exercises allowed using pillow between legs to roll when patient fully ambulatory with any assistive device (emphasized post-operatively to prevent hip flexion contracture)
- Control contraction rate
- Avoid maximal isokinetic or isometric contractions and fast velocity exercises
- Progress AD (assistive device) as needed (walker/crutches, cane, no AD) as long as patient maintains a good walking pattern – minimal analgesic or
- trendelenberg gait deviation
- Progression into an outpatient physical therapy setting should be initiated as early in rehab as tolerable when appropriate, at least at week 3. Contact the office if a new prescription is needed

**INITIAL PHASE: (weeks 1 & 2)**Goals:

- 1). Independent transfers, ambulation and activities of daily living (ADLs) with assistive device
- 2). Teach pain management, edema control and home exercise program (HEP)
- 3). Hip active/passive (A/P) ROM increase 5-10<sup>°</sup>
- 4). Enhance muscular strength

Program:

- Post-operative day 1: physical therapy (PT) twice a day in hospital to begin
- Transfer/gait training, teach ADLs/exercise, review hip precautions
- Length of hospital stay: 1-3 days
- Begin strengthening
- Prone exercises if capable
- P/AA/A hip & knee ROM
- Bridging program
- Core strengthening
- Home exercise program
- Ice area as needed for swelling – 20 minutes on / 20 minutes off

**INTERMEDIATE PHASE: (weeks 3-6)**Goals:

- 1). Hip ROM Flexion 90<sup>°</sup>, abduction 30<sup>°</sup>
- 2). Independent ambulation with appropriate assistive device
- 3). Enhance strength/endurance

Program: (weeks 3 & 4)

- Continue initial phase
- Balance/proprioceptive exercises
- Extension and abduction PREs emphasis
- Staples out at week 3, begin scar mobilization when wound healed
- Stationary bike and/or treadmill initiated

Aquatherapy may be considered when wound healed and medically stable  
Discharge ted-hose at 4 weeks or whenever Coumadin is stopped

Program: (weeks 5 & 6)

- Continue previous program
- Progressive strengthening (concentric/eccentric control and open/closed chain)
- Evaluate length of ITB and address if necessary
- Use heat modality if needed

**ADVANCED PHASE: (weeks 7-12)**

Goals:

- 1). Functional muscle strength, ROM, and endurance
- 2). Return to normal activity/lifestyle
- 3). Progressive, independent HEP for one year post-operatively

Program:

- Continue previous phase
- Progress strengthening/endurance to functional level
- Progress ambulation to functional level with/without appropriate device
- Neuromotor control activities
- Perturbation activities
- Home program of strengthening and endurance, urge patients to become more physically active
- Advanced activities allowed if strength and safety not a concern
- Sport specific rehab if appropriate
- Sexual activity may be resumed when comfortable for both partners with continued adherence to "hip precautions"
- Driving approved at 6 weeks post-operatively for right surgical side if good leg control without narcotic use, 3 weeks post-operatively for left surgical side and no narcotic use
- Carry loads in ipsilateral arm (same as side of surgery)
- Healing can take up to 1 year. Expect some response to the surgery and exercise such as muscle soreness and swelling
- Acceptable Activities: swimming, biking, walking, dancing, golfing (using a golf cart), bowling
- Avoid high impact activities
- Elastic stockings (ted-hose) should be worn with airplane travel for up to 1 year post-operatively
- Exercise should become a lifetime commitment to lengthen the survivorship of you new joint

**LIFELONG RESTRICTIONS:**

- No high impact activities (i.e. running and jumping)
- No continual carrying heavy loads >40 lbs (ie-20 times a day, 5 days a week). Occasional lifting allowed.