

phil h. berry, jr., m.d.
miguel a. hernandez, III, m.d.
ray f. aronowitz, m.d.
david a. heck, m.d.
zachary kelley, m.d.
alexander cho, m.d.
jason k. lowry, md
jon e. nathanson, d.p.m.



810 north zang blvd.
dallas, tx 75208-4233
telephone (214) 941-4243
fax (214) 941-1153

www.TheBoneDocs.com
www.jasonlowrymd.com

2800 east broad st, suite 510
mansfield, tx 76063
telephone (817) 453-3500
fax (817) 453-3820

Total Hip Arthroplasty (Direct Anterior Approach) Rehab Protocol

(Last Revision: April 2013)

General Goals:

1. Short Term (Week 1)
 - A. Independent with exercises
 - B. Independent with ambulation with assistive devices as needed
 - a. Household distances
 - b. Even and uneven surfaces (stairs)
 - c. Weightbearing status determined by surgeon: generally WBAT
 - 1) Exception: intra-operative fracture or severe osteoporosis
 - C. Independent with bed mobility and transfers
 - D. Independent with total hip precautions
2. Long Term (Week 8)
 - A. Range of motion within functional limits to allow independence with activities of daily living (ADL's) (e.g. dressing, bathing, transfers with adaptive equipment as needed)
 - B. Sufficient strength to allow return to normal ADL's (e.g. driving, aerobic exercise, use of regular height commode)
 - C. Independent ambulation
 - a. With assistive device as indicated
 - b. Without gait deviation
 - c. Household and community distances (1000')
 - d. On even and uneven surfaces

General guidelines:

- The program will be individualized to the needs of the patients, specific pathology and pre/post-op condition. In general, few patients will require a formal Physical Therapy program. However, patients non-compliant with home exercises will be treated in-clinic three times per week for ten to twenty visits.
- All are implants are **non-cemented, press-fit hips**
- Protected weight bearing with a walker for 4 weeks for community ambulation & a single cane at home. Wheelchairs should be used for long distances; only in rare circumstances. The surgeon will prescribe weight-bearing status.
- Most patients only need to work on walking with their walker & sit-to-stand exercises at home.

Therapeutic Phases

I. Preoperative

- A. Fit for walker and instruct in use
- B. Instruct in postoperative exercise program
- C. Instruct in anterior hip precautions

II. Postoperative

- A. Day 1-2 (Inpatient visit)
 1. Transfer training (bed mobility, supine -> sit, sit -> stand)
 2. Ambulation training with walker
 3. Quad Sets
 4. Glute Sets

5. Ankle Pumps
 6. Supine hip abduction/adduction (avoid going past neutral)
 7. Review total hip precautions
- B. Day 3-7 (home)
1. Continue previous exercises
 2. Straight leg raises as tolerated (check with surgeon on non-cemented hips)
 3. Heel slides
 4. Seated long arc quads, short arc quads
 5. May also perform anterior capsule stretching of hip (to avoid hip flexion contracture) – similar to Thomas test position, flex the uninvolved hip to chest
 6. Continue gait training with weight bearing as tolerated (and as approved by orthopedics based on cemented vs. non-cemented) and progressing to cane or independent ambulation when able to ambulate without Trendelenberg gait
- C. Day 7+ 6 weeks (home)
- These are recommendations of safe exercises; patient does not have to perform every exercise listed.
1. Advance with previous exercises
 2. Basic closed chain exercises (when full weight bearing on involved extremity)
 - a. Concentrate on abduction to decrease/prevent Trendelenberg gait
 - b. Total Gym – Squats (0-45 knee flexion), toe raises
 - c. Standing mini-squats (0-45 knee flexion)
 3. Bridging
 4. Standing 3-way leg raises (Hip flex, abd, ext)
 5. Standing knee flexion
 6. Standing toe raises
 7. Seated BAPS board
 8. Hamstring Curl Machine (hip precautions)
 9. Leg Extension Machine (hip precautions)
 10. Stationary bicycle (seat high to maintain hip precautions)
 11. Advance to treadmill
- D. Recommended long-term activities after Total Hip Replacement (DeAndrade, KJ – *Activities after replacement of the hip or knee, Orthopedic Special Edition* 2(6):8, 1993)

Very Good, Highly Recommended	Good, Recommended	Needs skill, prior expertise	With care, ask your doctor	AVOID
Stationary Cycling Ballroom dancing Square Dancing Golf Stationary (Nordic Track) skiing Swimming Walking	Bowling Fencing Rowing Speed Walking Table Tennis Cross-country skiing Weightlifting	Bicycling (street) Canoeing Horseback Riding Ice Skating	Aerobic Exercise Calisthenics Jazz Dancing Downhill Skiing Doubles Tennis Step Machines Nautilus Machines Inline Skating Downhill Skiing	Baseball Basketball Football Softball Handball Jogging Racquetball Lacrosse Soccer Singles Tennis Volleyball

HIP PRECAUTIONS

Positional precautions: no hip adduction past neutral, no hip internal rotation past neutral, and no hip flexion >90. Adhere to these principles for a minimum of 12 weeks until soft tissue stabilization has occurred; however, hip flexion may increase >90 at 6 weeks. Certain surgical approaches may have special precautions, surgeons will inform patient and therapist.

Pillow: place a pillow under the operative knee for the first 4 weeks while resting or sleeping in bed. This will encourage the tissues in the front of the hip to “tighten-up”.

Bathroom: use the elevated toilet seat at all times. Can be discontinued at 3rd month.

Assistive Devices: Use ambulation devices (cane, walker, quad cane) as instructed by physical therapy. “Reacher” and “grabber” devices to be used for retrieving objects on floor or assist with socks or stockings. Long shoe horn to be used with loosely fitting shoes or loafers. A kit can be provided to patient (if stocked).

Transfers: Bed to chair: Avoid leaning forward to get out of chair to bed. Slide hips forward first, then come to standing. Use someone to assist patient until patient demonstrates safe, secure transfers. **Bathroom:** Use elevated toilet seat with assistance. Continue

assistance until safe, secure transfers. NOTE: Throw rugs should be moved out of bathrooms, kitchens when using assistive devices to ambulate.

In Vehicle: Can travel in the back seat of a 4-door sedan, sitting or reclining lengthwise across the seat, leaning on 1 or 2 pillows under head and back. Avoid sitting in conventional fashion (hips flexed more than 90 degrees) to avoid posterior dislocation of hip in the event of a sudden stop. If no 4-door sedan, then recline in front seat, but sit on 1 or 2 pillows.

Driving: Usually at 6 weeks post-operatively.

A handwritten signature in purple ink, appearing to read 'J. K. Lowry', with a stylized flourish at the end.

Jason K. Lowry, MD