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## **Total Hip Arthroplasty (Direct Anterior Approach) Rehab Protocol**

(Last Revision: April 2013)

UNIQUE TO THE ANTERIOR APPROACH, PATIENTS TRANSFER & AMBULATE MORE COMFORTABLY & STEADY RIGHT WAY THAN WITH OTHER APPROACHES SINCE THE ABDUCTORS, PIRIFORMIS, & EXTERNAL ROTATORS ARE NOT VIOLATED. I'VE ALSO OBSERVED LESS PAIN, WHICH ALLOWS THEM TO MOBILIZE MUCH QUICKER. BECAUSE OF THIS, AS THEIR THERAPIST, YOU WILL NEED TO "SLOW THEM DOWN" & NOT DO TOO MUCH WITHIN THE FIRST FOUR WEEKS.

KEY 1: PLEASE AVOID REPETITIVE STRAIGHT LEG & BENT KNEE HIP FLEXION FOR THE FIRST FOUR WEEKS. THIS CAN IRRITATE THE PSOAS & RECTUS & CAUSE GROIN PAIN. THIS WILL SET THE PATIENT'S RECOVERY BACK A GREAT DEAL.

KEY 2: THE MAIN FOCUS IN THE FIRST FOUR WEEKS IS SAFE TRANSFERS & GAIT TRAINING. I EXPECT A WALKER OR CANE USED FOR THE FIRST FOUR WEEKS, THEN STOP ACCORDINGLY BASE ON THERAPIST'S ACUMEN.

### **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 (USUALLY STOP BY WEEK 4)
  - 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 twelve visits.
- **MOST** implants are **non-cemented, press-fit hips**; BUT I'VE BEEN USING CEMENTED STEMS IN OSTEOPOROTIC PATIENTS MORE & MORE FREQUENTLY.
- 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.
- 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. \*AVOID STRAIGHT LEG RAISES/REPETITIVE HIP FLEXION X 3 WKS\*
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,*

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

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.

**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 3 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 2-3 weeks post-operatively.



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