PHYSIOTHERAPY OF HIP AND KNEE AFTER SURGERY AND INJURY

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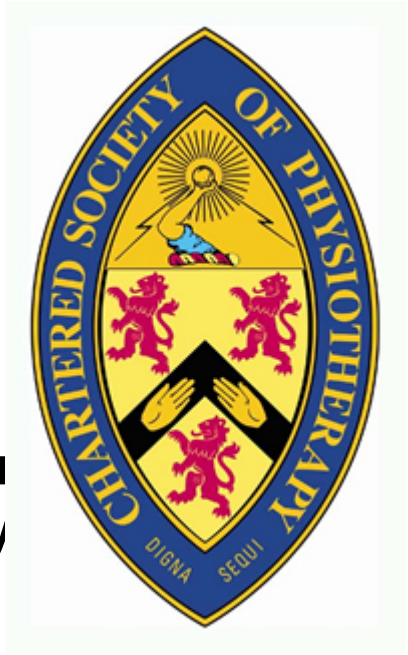
AIMS AND OBJECTIVES

To demonstrate the use of physiotherapy assessment and treatment following:

Hip Arthroplasty

Knee Arthroplasty

WHAT IS PHYSIOTHERAPY?



- **Physiotherapy helps to restore movements and fu as near normal as possible when affected by injury disability.**
- **It uses physical approaches to promote, maintain and restore physical, psychological and social well-being, taking account of variations in health status.**
- **Physiotherapy is science-based, committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery.**

WHY REHABILITATE?

- **Enable the patient to regain normal function and activities of daily living.**
- **Improve the physical and functional potential of the joint and surrounding muscles.**
- **Prevent the development of complications.**
- **Achieve patients goals.**

HIP ARTHROPLASTY

Replaces a joint damaged by arthritis, injury or birth deformity.

PRINCIPLES OF REHABILITATION

- **Assessment**

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- **Mobilise patient**

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- **Mobilise patient**
- **Prevent complications**
- **Educate patient and family**

PATHWAY OF RECOVERY

Case 1

Mr A – 55 year old man post Total Hip Replacement . No post op complications.

Day 1

- **Post operative assessment – subjective and objective**
- **Check operation notes and post operative instructions**
- **Observations - HR, BP, Drainage, Temperature**
- **Analgesia – useful to use 0-10 scale for pain assessment**
- **Physical observation of pain, range of movement and muscle strength**
- **Respiration and circulation**

- **Evaluate and make a Treatment Plan**

EXERCISES

1. **Ankle Exercises 2 minutes each hour**
2. **Squeeze buttocks together. Hold 5 seconds.**
3. **Toes to ceiling, push knee down against the bed. Hold 5 seconds.**
4. **Knee bends. Slide heel to bottom keep heel on the bed and do not let knee roll inwards.**
5. **Slide leg to side and back**
6. **Repeat exercises 3 times daily 10 reps**
7. **Deep breathing exercises hourly**

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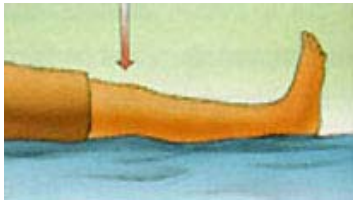
3. 
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PRECAUTIONS

- **Capsule and ligaments are damaged during surgery and take 6-12 weeks to recover and provide stability to the hip joint**
- **Limit hip flexion - no bending beyond 90 or leaning forwards in bed. No sitting on low furniture**
- **Operated leg not to cross the midline**
- **No twisting of the operated leg inwards or outwards**
- **Care getting dressed**
- **Observe for clinical signs of DVT/PE**

MOBILITY

GETTING OUT OF BED

- **Teach safe technique to patient observing precautions on and off bed and to standing**

- **Staff observe correct handling to prevent injury to themselves**

- **Walking short distance with frame – observe gait, balance and precautions**

PATHWAY TO RECOVERY PROGRESSION

Day 2 onwards

- **Subjective/ objective assessment, evaluation and plan**
- **Observe for indications of infection / thrombosis**
- **Progress exercises and encourage independence with the exercises**
- **Progress walking and teach use of crutches or sticks when appropriate. Gait re-education**
- **Teach technique for ascending and descending stairs/ steps**
- **Consider patients own goals**

PATHWAY TO RECOVERY HOME

Advanced exercises

- **Hip flexion**

- **Hip Abduction**

- **Hip Extension**

MOBILITY

Stairs

- **Requires flexibility and strength**
- **One step at a time**
- **To climb the stairs lead with unoperated leg**
- **Descending lead with operated leg and crutches**

ADVICE

General Advice

- **Continue exercises daily**
- **Avoid standing for long durations**
- **No digging/ bending etc. for three months**
- **Walking continue as an exercise progressing distance**
- **Check patient has achieved their goals**

TOTAL KNEE REPLACEMENT

Case 2

Total knee Replacement

- **Pre op assessment if possible**
- **Post op assessment as with hip**
- **Check quads strength ?SLR**
- **Measure knee flexion and extension.**
- **Observe swelling of the knee**
- **Regular analgesia**
- **Breathing exercises**

KNEE EXERCISES

1. **Ankle exercises 2 mins each hour**

2. **Static quads contractions**

3. **Straight leg raises. Tighten thigh with knee straight and lift. Hold 5 seconds relax slowly**

4. **Knee straightening exercises. Small towel just above the ankle. Tighten thigh hold 10 seconds**

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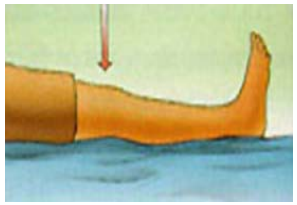

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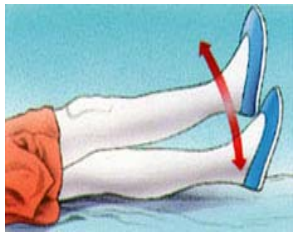

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KNEE FLEXION EXERCISES

1. **Bed supported Exercises. Bend knee whilst sliding foot on the bed. Hold then slowly straighten.**

2. **Use unoperated leg to support operated leg and slowly bend and straighten**

3. **Bend operated leg and use foot to slide on the floor.**

Repeat exercises several times note fatigue

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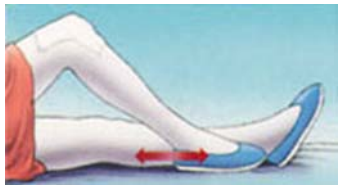

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PROGRESSION

- **Evaluate the effect of exercise upon the joint**
- **Aim for 50-70 active flexion by day 7**
- **Range of extension is important for effective weight-bearing through the joint**
- **Strong quads to protect the joint and structures when walking**
- **Initial walking with frame and progression onto crutches/ sticks**
- **Stair technique as THR**

EXPECTATIONS

Protect the new joint from forces to ensure it will last.

Dangerous Activity

Jogging, running, contact sport, jumping sport, high impact aerobics

Activity exceeding recommendation

Hiking, tennis, lifting over 50lbs

Expected Activity

Walking, swimming, golf, driving, normal stair climbing

SUMMARY

- Assessment
- Treatment Plan including patients own goals
- Patient is encouraged to have an active role in their rehabilitation
- Recovery rate is linked to the normal healing process

ANY QUESTIONS