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REHABILITATION PROTOCOL FOR KNEE REPLACEMENT SURGERY

PHYSIOTHERAPY GUIDELINES

This is a guideline for your physiotherapist to help you progress through rehabilitation over the course of twelve weeks following your knee operation. A physiotherapist who is experienced in knee rehabilitation should be consulted throughout the programme to supervise, and where necessary, individually modify your programme.

Aims of Rehabilitation:

- To restore range of motion and strength to the knee
- The final goal is to minimise knee pain and improve your knee function to improve your quality of life.

Type of Replacement Performed:

- Total knee replacement
- Unicompartmental knee replacement (medial / lateral / patellofemoral)

Consulting At:

- Melbourne Orthopaedic Group, 33 The Avenue, Windsor 3181
- Glenferrie Private Hospital, 29 Hilda Crescent, Hawthorn 3122
- Level 4, 250 Collins Street, Melbourne 3000

EXERCISES/TREATMENT FOR EACH STAGE OF REHABILITATION

1-14 DAYS

Manual Physiotherapy

- Intermittent cryotherapy to minimise joint swelling over the first four to five days.
- Cryotherapy after exercises. Heat packs may be used on the knee and thigh prior to exercises.
- Circumferential compression dressing (Tubigrip) from ankle to thigh.
- Elevate the affected limb to minimise swelling.
- Ankle exercises for DVT prophylaxis.
- Deep breathing exercises for basal atelectasis.

Range of Motion / Strengthening Exercises

- Quadriceps sets, gluteal sets.
- Straight leg raises, supine.
- Knee extensions supine over a roll.
- Knee extensions from seated.
- Passive knee straightening with a heel roll supine.
- Heel slides, seated and supine.

Functional Exercises

- Transfer lying to standing, and seated to standing.
- Gait training with crutches, including stairs.
- Into and out of a car.
- Weight bear as tolerated.

3-6 WEEKS

Manual Physiotherapy

- Cryotherapy after exercises. Heat packs may be used on the knee and thigh prior to exercises.
- Circumferential compression dressing (Tubigrip) from ankle to thigh.
- Ankle exercises for DVT prophylaxis.
- Patellar mobilisation exercises.
- Quads and hamstrings deep tissue massage.

Range of Motion / Strengthening Exercises

- Isometric quads, hamstrings, gluteals, adductors.
- Core stabilising exercises.
- Active and assisted range of motion exercises.
- Supported standing heel raises, calf stretches, mini squats, hamstring curls.
- Hydrotherapy after week three.

Functional Exercises

- Gait – normalise gait between crutches, progressing to a single point stick.
- Weight bearing as tolerated.
- Increase endurance with longer walks and stairs.

Patients should be walking without aids and achieving flexion >90 degrees by six weeks post operation.

EXERCISES/TREATMENT FOR EACH STAGE OF REHABILITATION

7-12 WEEKS

Manual Physiotherapy

- Patellar mobilisation exercises.
- Quads and hamstrings deep tissue massage.
- Wound massage with Bio-oil or Vitamin E cream.

Range of Motion / Strengthening Exercises

- Core stabilising exercises.
- Squats and single leg stance mini-squats.
- Resistance exercises for quadriceps, hamstrings, gluteals and adductors.
- Active and assisted ROM exercises.

Functional Exercises

- Start driving using the affected leg.
- Gait supervision without walking aids.
- Lateral stepping.
- Heel-toe walking.
- Exercise bike (can start earlier if good balance).

13+ WEEKS

Training for Life

Once the patient has achieved full extension and flexion >110 degrees, normalised and unaided gait and good muscle balance, institute an ongoing program of regular exercise tailored to the patient. This may include:

- Regular walking
- Exercise bike
- Hydrotherapy
- Gentle gym workouts
- Return to sport (golf, doubles tennis, lawn bowls, etc)

Encourage the patient to continue their exercise program *indefinitely*, to optimise the outcome from their surgery.