

KNEE EXERCISES – Level 3

(GYM MACHINES)

For rehabilitation after knee surgery such as ACL reconstruction – Progress under physiotherapist supervision. 3rd to 6th month after surgery is an important time when you will be building up the thigh muscles. You could reinsure your knee if you do not build your thigh muscles to the adequate strength to support your body weight and the extra load while playing games. (The knee has to withstand more than 3 times the body weight when you do a cutting movement in football).

The important exercises are Quadriceps, Hamstring curls, Leg press and slow progression to Squats and weighted squats

1. Seated Leg Extension (Quadriceps)

- **Machine:** Leg Extension Machine
- **Starting Weight:** 5 kg
- **Progression:**
Increase by 5 kg per week until half body weight
- **Sets & Reps:** 3 sets × 12–15 reps
- **Instructions:**
 - Sit upright, back supported, knees bent at 90°.
 - Extend the leg slowly until fully straightened.
 - Hold for 2 seconds, then return slowly.



2. Prone / Seated Hamstring Curl (Hamstrings)

- **Machine:** Hamstring Curl Machine
- **Starting Weight:** 5 kg
- **Progression:**
Increase by 5 kg per week until half body weight
- **Sets & Reps:** 3 sets × 12–15 reps
- **Instructions:**
 - Adjust machine for proper knee alignment with pivot point.
 - Bend the knee, pulling the roller towards the buttocks.
 - Hold 2 seconds, then return slowly.





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3. Leg Press (Quadriceps + Glutes)

- **Machine:** Leg Press Machine
- **Starting Weight:** 5 kg
- **Progression:** Increase by 5 kg per week until reaching **half your body weight**
- **Sets & Reps:** 3 sets × 12–15 reps
- **Instructions:**
 - Sit with your back supported.
 - Place feet shoulder-width apart on the platform.
 - Push the plate away until your legs are almost straight (do not lock knees).
 - Slowly return to starting position.



4. Hip Abduction & Adduction (Hip + Knee Stabilizers)

- **Machine:** Hip Abduction/Adduction Machine
- **Starting Weight:** 5 kg
- **Progression:** Increase by 5 kg per week until half body weight
- **Sets & Reps:** 3 sets × 12–15 reps each direction
- **Instructions:**
 - Sit upright and adjust pads to starting position.
 - Push outwards for abduction, inwards for adduction.
 - Move slowly and avoid jerky motions.



General Guidelines:

- Warm-up for 5 minutes before starting (cycling or treadmill at slow speed).
- Breathe out while lifting, breathe in while lowering.
- Stop if sharp pain, swelling, or instability occurs.
- Cool down and stretch after session.

Joint Replacements | Sports Injuries | Knee Arthroscopy | Shoulder Arthroscopy | Spine Surgery | Foot and Ankle surgery | Trauma

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