

KNEE EXERCISES – Level 4 (PLYOMETRIC TRAINING)

For advanced rehabilitation after knee surgery such as ACL reconstruction – To be started only after clearance from your surgeon and physiotherapist. Usually introduced after 4.5-6 months post-surgery, once muscle strength, stability, and movement control are adequate. Plyometric exercises improve explosive power, agility, and knee stability for return to sports activities.

1. Box Jumps

- Use a plyo box or a stable platform (start with 20–30 cm height).
- Stand with feet shoulder-width apart, knees slightly bent.
- Jump explosively onto the box, landing softly with knees bent.
- Step down slowly, do not jump down to avoid impact.
- Sets & Reps: 3 sets × 8–10 reps.



2. Lateral Skater Jumps

- Stand on one leg with the other leg slightly lifted behind.
- Jump sideways to land on the opposite leg, swinging arms for balance.
- Keep landings soft and controlled.
- Sets & Reps: 3 sets × 10 each side.



3. Jump Squats

- Stand with feet shoulder-width apart.
- Perform a squat, then jump up explosively.
- Land softly and immediately go into the next squat.
- Keep chest upright, avoid knee collapse



inward.

- Sets & Reps: 3 sets × 8–10 reps.

4. Split Lunge Jumps

- Start in a lunge position with one foot forward, one back.
- Jump explosively, switching legs mid-air.
- Land softly into a lunge and repeat.
- Maintain balance and avoid jerky movements.



- Sets & Reps: 3 sets × 8–10 each leg.

5. Bounding Runs

- Run forward with long, exaggerated strides, pushing off strongly from each leg.
- Focus on height and distance in each bound.
- Use a flat, safe surface.
- Distance: 20–30 meters × 4–6 repetitions.



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.