



# Getting Your Knee Straight

## *The Importance of Knee Extension After Surgery*

### Why Knee Extension Matters

**Knee extension** refers to your ability to fully straighten your knee. After surgery—such as ACL reconstruction, meniscus repair, or total knee replacement—regaining full extension is one of the most crucial components of your recovery.

#### Here's why:

- **Foundational to Walking:** Full knee extension is necessary for walking efficiently. A knee that doesn't straighten fully changes how you move, often causing you to limp and shift weight improperly.
- **Prevents Long-Term Stiffness:** Scar tissue can build quickly after surgery, and if full extension isn't prioritized early, that stiffness becomes harder to reverse later.
- **Reduces Pain and Swelling:** A straight leg position allows better circulation and drainage of post-operative swelling. Bent knees can contribute to pooling of fluid and discomfort.
- **Supports Muscle Recovery:** The quadriceps (your thigh muscles) don't activate well unless the knee can fully extend. Without this, it's hard to regain strength and function.
- **Avoids Compensation Injuries:** Over time, poor knee extension can lead to hip, back, or ankle problems as your body tries to adapt to a limited joint.

**In the early weeks after surgery, full passive extension (using assistance or gravity) is typically more important than regaining full knee bending (flexion).** Without it, every step in rehab becomes harder.

## Exercises to Help You Regain Knee Extension

These exercises are designed to help you straighten your knee effectively and safely. They may be uncomfortable, but you should not push into pain greater than a **5/10**, and exercises should not elevate your pain by more than **3 points** on the 0–10 scale. Perform them consistently, 2–3 times per day.

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### Heel Prop

Helps passively stretch the back of your knee.

- Sit with your heel propped on a chair, ottoman, or firm surface.
- Drape a looped band with a **3–5 lb weight** around your thigh, just above the knee.
- Let gravity and the weight work together to straighten your knee.
- **Hold 4–5 minutes.** Repeat **2–3x/day**.
- *Tip:* It may feel stiff when coming out of the stretch—bend and straighten your knee a few times afterward.



### Prone Hangs

Uses gravity for extension while you lie on your stomach.

- Lie face down with your legs hanging off the bed or table, so the knee joint is unsupported.
- Allow your lower leg to relax and hang downward.
- Add an ankle weight if needed for more stretch.
- **Hold 4–5 minutes, 2–3x/day.**



## Edge of Bed Quad Squeeze with Towel Assist

Combines passive stretch with muscle activation.

- Sit on the edge of your bed with your surgical leg straight and other leg hanging down.
- Loop a towel around your foot and gently pull to straighten your knee further.
- At the same time, **tighten your thigh muscles** for 10 seconds.
- Repeat **10 times, 2–3x/day**.



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## Calf Stretch with Quad Squeeze

Improves flexibility and engages the quad.

- Stand with both hands on a wall in a staggered stance.
- Your surgical leg should be behind you.
- Lean forward into a **calf stretch**, keeping heel down.
- **Squeeze your quad** (thigh) at the end of the stretch for extra benefit.
- Hold **10 seconds**, repeat **10 times, 2–3x/day**.



## Heel Prop on Step with Over-Pressure

Adds manual pressure to increase extension.

- Place your heel on the bottom step of a staircase.
- Press just above your knee with your hand to help straighten it.
- **Hold pressure for 10 seconds.**
- Repeat **10 times, 2–3x/day.**



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## Banded Knee Extensions

Can assist or resist motion depending on the setup.

- Anchor a resistance band just above your knee.
- Stand tall with most of your weight on the surgical leg.
- Squeeze your quadriceps to fully straighten your knee.
- **Hold 10 seconds, repeat 10 times, 2–3x/day.**



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## Consistency is Key

Recovering full knee extension is not a one-time effort—it's the result of **daily, deliberate practice**. Expect some discomfort, but know that you are protecting your long-term function, gait, and strength by committing to these stretches and exercises now. If you don't get your knee straight early, it becomes significantly harder to fix later.

*Your knee should always be working toward a zero-degree extension (fully straight), not just what feels straight. Aim high.*