

## HOME EXERCISE PROGRAM

## Knee Home Exercise Program

*A complete conditioning program for the knee — range of motion, flexibility, and strength*

This program restores motion, flexibility, and strength to the knee — the same progression you would follow in physical therapy. Warm up for 5–10 minutes with easy walking or a stationary bike before you begin, and finish with the stretches. Move through a pain-free range; mild muscle fatigue is expected, sharp joint pain is not.

## WARM-UP &amp; FLEXIBILITY

*Do these daily. Stretch gently to the point of tension — never pain — and breathe through each hold.*

**Heel Cord (Calf) Stretch**

**2 sets × 30-sec holds each leg, daily**

Stand facing a wall with the affected leg straight behind you, heel flat. Press your hips forward until you feel a stretch in your calf. Keep the back knee straight.

**Standing Quadriceps Stretch**

**2–3 reps × 30–60 sec each leg, daily**

Holding a chair or wall for balance, pull your heel toward your buttock until you feel a stretch in the front of your thigh. Keep your knees close together.

**Supine Hamstring Stretch**

**2–3 reps × 30–60 sec each leg, daily**

Lying on your back, hold behind one thigh and slowly straighten the knee toward the ceiling until you feel a stretch behind the thigh. A strap or towel around the foot helps.

**Heel Slide**

**2–3 sets × 10, daily**

Lie on your back with the leg straight. Slowly slide your heel toward your buttock, bending the knee as far as is comfortable, then straighten it again. A towel around the foot can help pull the heel in. Restores knee bending motion.

## FOUNDATIONAL STRENGTHENING

*Begin here. These wake up the quadriceps and hip muscles that protect the knee. 4–5 days per week.*



### Quad Sets

**10-sec holds × 10, 2–3 sets daily**

Sit or lie with the leg straight. Tighten the muscle on top of the thigh, pressing the back of the knee down. Hold, then relax. The kneecap should slide slightly upward.



### Straight-Leg Raise

**3 sets × 10, 5-sec holds, 4–5 days/week**

Lie propped on your elbows with the good knee bent. Tighten the thigh, lock the knee straight, and raise the leg about 8–10 inches. Lower slowly.



### Short-Arc Quad

**3 sets × 10, 5-sec holds, 4–5 days/week**

Lie on your back with a firm roll (a foam roller or large rolled towel) under the knee. Keeping the thigh resting on the roll, straighten the knee to raise only the lower leg and foot, hold, then lower slowly.



### Side-Lying Leg Raise (Abduction)

**3 sets × 15, 4–5 days/week**

Lie on your side with the affected leg on top and straight. Raise it toward the ceiling to about 45°, hold, and lower over 2 seconds. Keep the toes pointing forward.



### Inner-Thigh Raise (Adduction)

**3 sets × 15, 4–5 days/week**

Lie on the affected side with the top leg crossed in front. Raise the bottom leg 6–8 inches, hold briefly, and lower slowly.

## PROGRESSIVE STRENGTHENING

*Add these once the foundational exercises feel easy. Stop short of pain and progress gradually.*



### Half Squats

**3 sets × 10, 4–5 days/week**

Stand with feet shoulder-width apart, holding a counter if needed. Sit your hips back about 10 inches as if into a chair, hold 5 seconds, and push through your heels to stand.



### Standing Hamstring Curl

**3 sets × 10, 5-sec holds, 4–5 days/week**

Holding a chair, bend the affected knee to bring your heel toward your buttock. Hold, then lower slowly. Keep your thighs aligned.



### Seated Knee Extension

**3 sets × 10, 5-sec holds, 4–5 days/week**

Sit tall in a chair. Tighten the thigh and straighten the knee until the leg is level, hold, then lower slowly. Add an ankle weight as it gets easier.



### Calf Raises

**2–3 sets × 10, most days**

Stand with support and rise onto the balls of both feet as high as comfortable. Pause, then lower slowly. Progress toward one leg at a time.



### Monster Walk (Lateral Band Walk)

**3 sets × 10 steps each direction, 3–4 days/week**

Place a resistance band around both legs just above the knees or ankles. In a slight mini-squat, step sideways against the band for several steps, then back the other way. Keep your toes forward, knees over your toes, and hips level.



### Step-Up

**3 sets × 10 each leg, 4–5 days/week**

Stand facing a low, sturdy step. Step up leading with the affected leg, bring the other foot up to meet it, then step back down slowly under control. Keep the knee tracking over the toes and use a rail for balance.



## Wall Sit

**3 × 20–30 sec holds (build toward 60 sec), most days**

Stand with your back flat against a wall and walk your feet out slightly. Slide down until your knees are bent about 45–60° — never past 90°. Hold, then slide back up. Keep your knees behind your toes.

*Stop and call the office at (513) 354-3700 if any exercise causes sharp pain, new swelling, numbness, or symptoms that worsen into the next day. This general program is patient education and does not replace an individualized plan from Dr. Pettit or your physical therapist. If you are recovering from surgery, follow your specific post-operative protocol first.*



**SCAN FOR THE LATEST VERSION ONLINE**

[robertpettitmd.com/exercise-programs/knee.html](http://robertpettitmd.com/exercise-programs/knee.html)

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