



SELF-MANAGEMENT: PATIENT'S SECTION

Exercises for anterior knee pain[☆]

Craig Liebenson, D.C.*

L.A. Sports and Spine, 10474 Santa Monica Blvd., #202, Los Angeles, CA 90025, USA

The Big 3 for the Knee

Pain in the front of the knee is a very common complaint. It is often called anterior knee pain (AKP), patello-femoral pain syndrome, runner's knee, extensor mechanism disorder, jumper's knee, or patellar tendonitis.

People with AKP frequently complain of dull pain, which is worse running, squatting, jumping, getting up from a chair or out of a car, or walking up or down stairs. Sometimes the knee clicks or locks. It can occasionally feel like it is buckling under you when you walk. Sometimes it is swollen.

Occasionally, direct trauma to the knee can cause AKP, but usually it is caused by cumulative overload. The two ways the knee can become overloaded are from either repetitive strain or chronic underuse. Repetitive strain occurs if sports activities involving running are engaged in over many years. Overload due to underuse occurs when the muscles around the knee are deconditioned from leading a sedentary lifestyle and even everyday activities like walking are eventually too much for the knee. Being overweight can also precipitate either of the above two situations.

If your pain is acute, ice or anti-inflammatory medication may help. Use the R.I.C.E. formula:

- *Rest*: Avoid putting weight on the painful knee.
- *Ice*: Apply cold packs for 10–20 min, several times a day.

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*Tel.: +1 310 470 2909; fax: +1 310 470 3286.

E-mail address: cldc@flash.net.

- *Compression*: Use an elastic bandage such as a simple knee sleeve that fits snugly without causing pain.
- *Elevation*: Keep the knee raised up higher than your heart.

A rehabilitation specialist will perform a functional examination to rule out serious conditions, discover “weak links”, and help you identify specific goals of treatment. Once your pain is under control, and your health care provider has ruled out serious conditions, you can begin to perform the “Big 3 for the Knee” exercises. If any of these exercises are painful or your AKP is worsening be sure to consult with your doctor.

Pillow push

One of the most basic knee exercises to improve the “tracking” of the knee cap (patella) is called the pillow push. Simply push the back of your knee into the pillow and hold it there for 5–6 s. Then release. Repeat 8–10 times. Perform twice a day (Fig. 1).

Terminal knee extension

For this exercise lift your shin and foot up until your knee is as straight as it will go. Hold this for a few seconds. Then relax the lower leg. Repeat 8–10 times. Perform twice a day (Fig. 2).

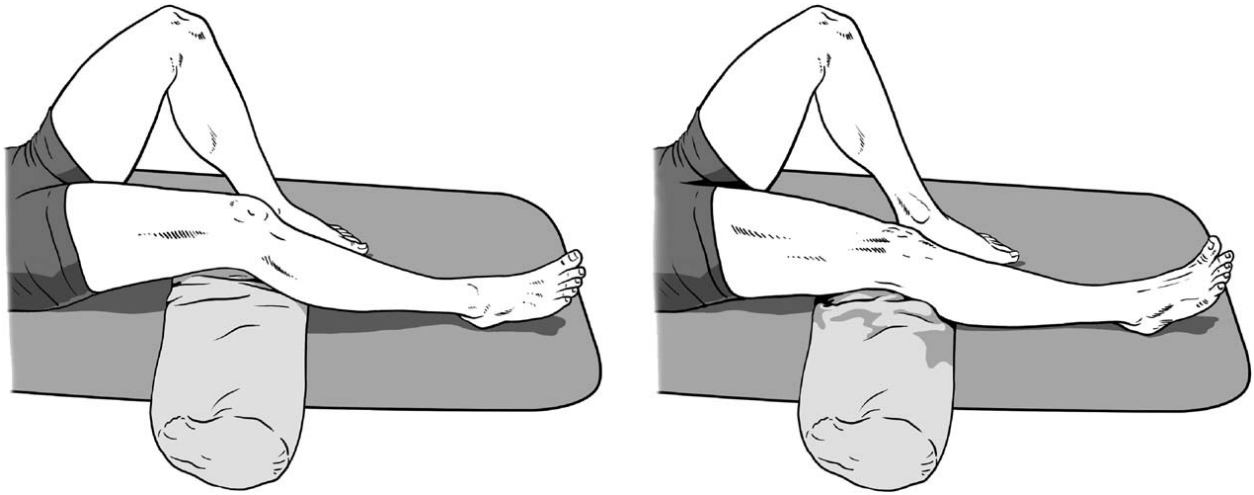


Figure 1

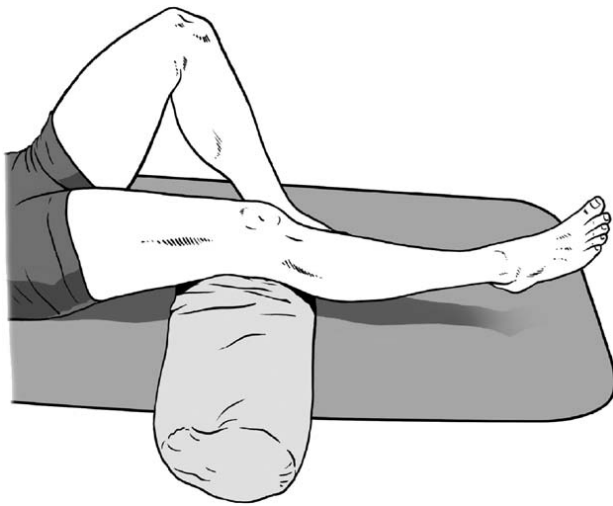


Figure 2



Figure 3

Heel slide

The heel slide exercise is performed lying down with legs straight. Slowly drag one heel back towards the buttock as the knee bends. Then, slowly push the heel out until the leg is straight. Repeat 8–10 times. Perform twice a day (Fig. 3).

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