Anterior Knee Pain
A Holistic Approach to Treatment

Pain under the kneecap, also known as anterior knee pain or patellofemoral pain, is one of the most common reasons why active people seek healthcare. Each year, 2.5 million runners are diagnosed with patellofemoral pain. Unfortunately, 74% of people with this problem will decrease their overall physical activity levels for at least 5 years after the initial injury, and 70% to 90% of them will experience more than 1 episode of pain. Recently, a panel of 50 experts from 9 countries gathered in Belgium to discuss the potential causes of and best treatments for this condition. A synopsis of this meeting is published in the June 2012 issue of JOSPT and provides new insights and discussion of evidence-based treatments for those who have knee pain.

KNEE PAIN TREATMENTS. Several evidence-based treatments are available to address anterior knee pain. A thorough evaluation will help define the right treatment approach for your knee pain. Your physical therapist can determine whether you will respond better to a treatment program that is focused at your hip, knee, ankle, or foot.

Causes
- Decreased hip strength
- Decreased strength of thigh muscles that straighten your knee
- Tracking of the kneecap when you bend your knee
- Limited ankle motion or too much motion in the foot

Treatment
- Strengthening exercises for buttocks (gluteal) muscles
- Strengthening exercises for thigh (quadriceps) muscles
- Taping or bracing of kneecap
- Increase motion at the ankle and/or orthotics


This Perspectives article was written by a team of JOSPT’s editorial board and staff, with Deydre S. Teyhen, PT, PhD, Editor, and Jeanne Robertson, Illustrator.

NEW INSIGHTS
The researchers agreed that a holistic approach to evaluating people with anterior knee pain is essential because the pain can have several causes—from altered movements at the hip, knee, ankle, and foot to decreased strength of the hip and thigh muscles. To assess your knee, your healthcare provider should evaluate how your leg moves during activities such as running and going up and down stairs, as well as the strength of the quadriceps muscles in your thigh that straighten your knee. Your foot and ankle should also be examined to determine if limited movement at your ankle, excessive motion in your foot, or the abnormal wear of your shoes adds to your knee pain. Weak hip muscles can also cause the thigh to rotate inward during activities, resulting in increased pressure under your kneecap. A thorough examination of your back and legs by your physical therapist is recommended to better understand the cause of your knee pain and to develop a more effective treatment program.

PRACTICAL ADVICE
For people with anterior knee pain, the good news is that there are many potentially effective treatments. If you have altered tracking of the kneecap, taping or a brace may temporarily decrease the pain. Strengthening your quadriceps and hip muscles can help decrease the load and pressure on your knee, and thus the pain under your kneecap. Training to improve how you move and run may also decrease the pain. Finally, orthotic devices or changing your shoe type may aid in lessening the pressure under your kneecap. After a thorough evaluation, your physical therapist can help customize a treatment program for you. For more information on the treatment of patellofemoral pain, contact your physical therapist specializing in musculoskeletal disorders.

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