

Patellofemoral Syndrome

Condition: Patellofemoral pain syndrome (PFPS) is a potential cause of pain around the kneecap or the front of the knee

Background: PFPS is primarily caused by the wearing down, roughening or softening of the cartilage underneath the kneecap.

Risk Factors: PFPS is often caused by overuse, weak or tight muscles, misalignment of the kneecap, or abnormal foot mechanics. Women are twice as likely as men to develop PFPS. Athletes who train improperly such as overtraining, rapidly increasing training or wearing improper footwear are at risk, and PFPS is the cause of nearly 25% of all knee injuries in runners.

History and Symptoms: Patients often notice pain during activity when bend the knee jumping, running or climbing stairs. Other symptoms include knee buckling, where the knee suddenly “gives out,” and knee swelling or stiffness. If untreated, PFPS can progress and the pain maybe present even at rest or progress to patellofemoral osteoarthritis.

Physical Exam: Your physical medicine and rehabilitation (PM&R) physician will evaluate for tenderness around the knee, check the alignment of the kneecap, and assess the stability and strength of knee and thigh muscles. A biomechanical assessment, including a single-leg squat test, will also be examined to look for muscle weakness at the hip.

Diagnostic Process: A x-ray or MRI may be ordered by your PM&R physician to assess the position of the kneecap and rule out other causes of knee pain. Your PM&R physician may also order blood work to rule out inflammatory or rheumatologic conditions that can also causes of knee pain.

Rehab Management: PM&R physicians are uniquely qualified to evaluate, diagnose and manage knee pain. Rest, ice, and/or pain medications, such as ibuprofen, may be prescribed initially. The PM&R physician will then assess biomechanics and suggest options to improve this. Patella taping to stabilize the kneecap and orthoses (braces or shoe inserts) can help. Strength training involving the core, hip, knee, and ankle can be beneficial, although patients should avoid exercises that involve deeply bending the knee. Patients that do not respond to conservative treatment may require interventional procedures or surgery.

Other Resources for Patients and Families: Improper footwear can contributes to PFPS and the American College of Sports Medicine’s [Selecting Running Shoes](#) is one resource that can help.

Frequently Asked Questions

What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?

Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.