

Patient Information: Knee Pain (Patellofemoral Syndrome)



What are the common causes of knee pain?

- Knee pain can be caused by injuries to the tendons, ligaments, and cartilage, or by overuse
- One of the most common types of non-traumatic knee pain is patellofemoral syndrome
- Patellofemoral syndrome can be caused by overuse, abnormal kneecap motion, weak/imbalanced leg muscles, or changes in intensity or type of exercise

What are the symptoms of patellofemoral syndrome?

- Pain in the front of the knee, around or under the patella (kneecap)
- Knee stiffness, difficulty with kneeling, climbing stairs, squatting



How is patellofemoral syndrome diagnosed?

- Your physician will perform an exam to evaluate the structures inside your knee- the tendons, ligaments, and cartilage
 - They will also evaluate the tracking of your patella (how it moves when you bend and straighten your leg)
- Musculoskeletal ultrasound can be done to evaluate the soft tissue around your patella for inflammation
- X-rays may be obtained to review your patellar alignment
- If injury to an internal knee structure is suspected, an MRI may be obtained



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How is patellofemoral syndrome treated?

- Initial treatment focuses on improving pain and stiffness with decreased activities, ice, compression wraps, and anti-inflammatory medication
- An anti-inflammatory injection under or around the patella may also be utilized
- The second phase of treatment addresses the cause of the pain, by strengthening weak muscle groups, taping/bracing to improve patella alignment, and slowly increasing activity levels
- In rare cases where patella alignment does not improve with rehabilitation, surgery may be indicated

How can I prevent patellofemoral syndrome?

- Include strength training activities for all of the muscles that support the knee and patella- for example, resistance band walks, abductor/adductor machines, and single leg squats
- Warm up and stretch prior to exercising, and include a cool down stretch at the end
- Wear activity-appropriate, supportive footwear
- Increase activity intensity slowly, and incorporate rest days and low-impact exercise days (swimming, yoga, tai chi)
- Proactively address new-onset patellar pain by reducing activity intensity, and taping or bracing the patella if needed



Where can I learn more about patellofemoral syndrome?

- Education- OrthoInfo:
<https://orthoinfo.aaos.org/en/diseases--conditions/patellofemoral-pain-syndrome/>
- Knee strength training- Boston Sports Medicine:
http://www.bostonsportsmedicine.com/pdf/protocols/knee_strength_training.pdf
- Yoga for knee stability- Yoga with Adriene:
<http://yogawithadriene.com/yoga-for-sensitive-knees/>

To schedule an appointment, visit the Steward St. Elizabeth's Sports Medicine website at: semc.org/services-directory/orthopedics/sportsmedicine
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