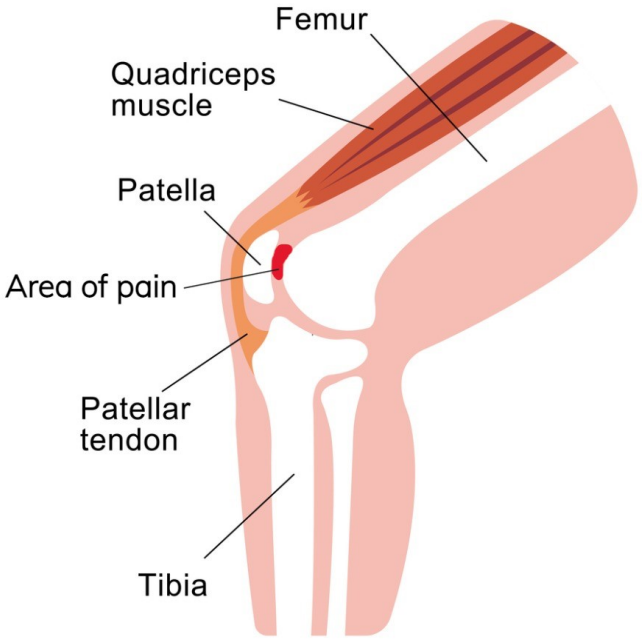
YOUR GROUP23

PATIENT HEALTH JOURNEY

BECOME AN EXPERT: Patellofemoral Pain Syndrome

Patellofemoral Pain (PFP) is a common cause of anterior knee pain that affects the kneecap (patella) and thigh bone (femur). Also known as **patellofemoral pain syndrome (PFPS), chondromalacia patella, or runner's knee,** it accounts for approximately 15% of knee pain presentations to family doctors, and is frequently seen in physiotherapy, orthopaedic, and sports medicine clinics. PFP is common in active individuals across the lifespan and evidence suggests it can be a recurring condition with a large genetic component. The condition often presents without any significant history of trauma, and **symptoms** typically include pain, crepitus (i.e., clicking, catching, grinding, creaking, etc.), stiffness, and occasional swelling that can hinder movement.



PFP can greatly decrease an individual's ability to perform sports, physical, and work-related activities, and is associated with knee loading activities that involve **repetitive or deep knee bending** such as squatting, lunging, and running. Irritation or defects in the structures surrounding the anterior knee can also contribute to PFP. Pain is typically relieved with rest, although some patients may experience increased pain with prolonged periods of sitting.

PFP is a condition that can have various contributing risk factors. These include a positive family history, increased body weight, speed of activity, and load frequency and intensity. Other factors include increased knee flexion, eccentric activities such as bounding, and poor patellar tracking. Weakness in the hip abductors/extensors/external rotators and increased valgus knee alignment can also contribute. Additionally, having a collapsed/flat foot (pronation), limited ankle dorsiflexion, and weak medial quadriceps compared to lateral quadriceps can also be factors. Tight anterolateral thigh and retinacular structures, hypermobility, and stress, depression, and anxiety can also contribute to PFP.

PFP is more often a **functional problem** than a structural problem. It will typically develop due to patellar maltracking, where the patella tracks or tilts laterally (toward the outside) in the femoral groove (trochlea) due to some combination of the risk factors listed previously. This means that the structures of the knee (bones, ligaments, tendons, etc.) are often normal, but the way in which they move together is problematic, causing pain. Therefore, the main long-term treatment of PFP is usually a home exercise program, guided by physiotherapy, to address these poor movement patterns. Changing the structures, as would occur in a surgery, generally has no benefit, and can even worsen symptoms. Similarly, detailed imaging of the structure of the joint (i.e., MRI) is rarely beneficial.

BECOME AN EXPERT cont'd

An important concept to understand as it relates to joints is **load capacity**. Load capacity simply means that the joint tissues can only absorb a certain amount of force before they begin to break down. An acute, sudden force applied to the anterior joint may cause it to become structurally damaged. Most individuals will remember an acute injury, such as slipping on ice and feeling immediate pain afterward. Other times, an injury may be more chronic in nature, meaning that it is a gradual overloading of the joint that slowly breaks it down over an extended period of time. This chronic breakdown can occur during an activity you have always done without pain, such as going for a walk or up and down stairs.

Another equally important concept pertaining to the knee joint is something called **optimal loading**. Optimal loading means that as living tissues, the bone, cartilage, tendons, and muscles of the anterior knee actually need to be loaded to keep healthy and strong. When people injure the joint it causes pain, which can lead to decreased usage or over-protection of the affected area. However, reducing the use of the joint can also cause it to weaken over time.

Check out a free lifestyle assessment, available with the Health & Wellness team!

In the case of Patellofemoral Pain Syndrome, we have a whole Toolkit of treatment options to try!

Becoming an expert and setting a SMART goal ensures every treatment decision reflects your priorities, not ours!

A component of optimal loading and load capacity is how much weight the joint can bear on impact. Physics suggests every pound of weight above the knees puts roughly 6 pounds of weight onto the knee at impact. Total body weight is a modifiable risk we consider a bio-psycho-social issue, which is why we value our **Health and Wellness providers** immensely. The Health and Wellness team can work with you to discuss any psychological and social barriers in your wellness journey, in combination with a metabolism assessment to build a lifestyle program fit specifically to you. Professional support in all areas is strongly encouraged for patients to achieve their health and wellness goals.

Aging is another factor that naturally causes the joint to slowly and steadily weaken. We know it's unavoidable; as we age, so do our tissues. This leads us again to the concept of optimal loading; your aging knee joint is more likely to remain strong and healthy if you continue to use it, and we can help find the appropriate activities, exercises, and modifications to keep you moving!

Why does this matter?
At Group23, we often see patients frustrated with their symptoms, lack of improvement, and the cost of ineffective treatments, products, and devices. Often the biggest issue we see with a diagnosis is the patient's lack of knowledge of the subject because no one has taken the time to explain what is truly happening! It's not enough to just know the words patellofemoral pain; it's important to us that you understand what it means!

BECOME AN EXPERT cont'd

Now you know more about the knee joint, loading capacity, and optimal loading, we can address treatment options that will allow you to load joint tissues in a way that will make them stronger. No matter where you start, you can get to the point of less pain and improved functionality... **IF** you create good SMART goals, utilize the options in your Toolkit, and commit to working proactively with your Group23 Health Journey team!

Our care philosophy
We see treatment choices as a Patient Health Journey, and we take pride in being on this Journey with you the entire way. The most crucial part is becoming an expert and creating Rise Above goals specific to you and your lifestyle. Once your Group23 healthcare team understands your destination, we can accurately create a treatment plan that is fit for you!