

YOUR GROUP23

PATIENT HEALTH JOURNEY

BECOME AN EXPERT: Patellar Tendinopathy

Understanding Tendons and Tendinopathy

Tendons are living tissues within our bodies that attach muscles to bones. The primary role of tendons is to transmit force generated by a contracting muscle, thereby allowing movement to occur. Tendons are made up of layers upon layers of cells called tenocytes that are organized along force lines, meaning the direction in which they are pulled by muscles. We like to describe tendons as “white” tissues – meaning they don’t have a large amount of blood supply (compared to say a muscle – which is a “red” tissue with a lot of blood supplying muscle cells with oxygen). Tendons are frustratingly slow to heal because the healing process in the body requires blood and its constituent cells (like platelets).

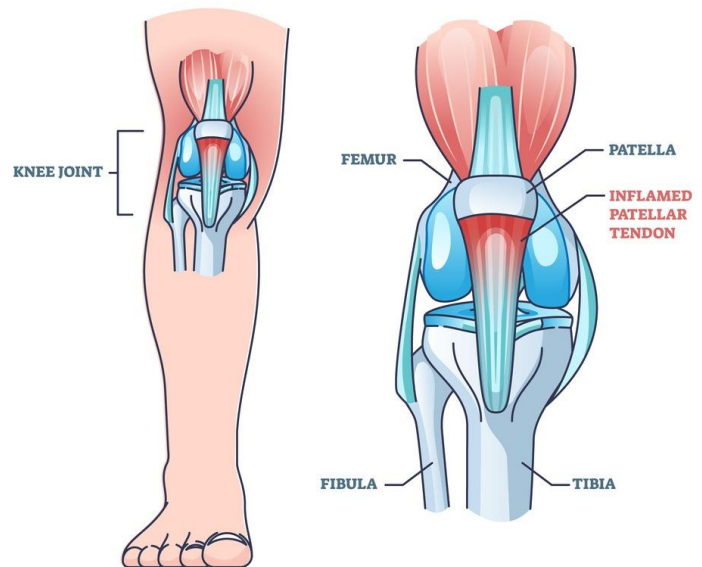
Since tendons are “white” tissue, they lack rich blood supplies that facilitate healing. When tendons age, are injured, or break down due to repetitive stresses, they become unhealthy - this is referred to as a “**Tendinopathy**” or “**Tendinosis**”. If even more stress is applied, the tendon may tear – partially or completely.

An important concept to understand as it relates to tendons is **load capacity**. Load capacity simply means that tendon tissues can only absorb a certain amount of force before they begin to break down. An acute, sudden force applied to the tendon may cause it to tear or rupture. 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 tendon 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 tendons is something called **optimal loading**. Optimal loading means that as a living tissue, tendons actually need to be loaded to keep healthy and strong. When people injure or overuse a tendon it causes pain, which can lead to decreased usage or over-protection of the affected area. However, reducing the use of the tendon can also cause it to weaken over time.

Aging is another factor that naturally causes tendons 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 tendons are more likely to remain strong and healthy if you continue to use them and we can help find the appropriate activities, exercises, and modifications to keep you moving!

JUMPERS KNEE



BECOME AN EXPERT cont'd

So what is Patellar Tendinopathy?

Patellar Tendinopathy, often referred to as 'Jumper's Knee', is a common cause of anterior knee pain. It is an overuse injury that presents in the form of pain, tenderness, and impaired performance. In athletes, the prevalence rate can be up to 50% depending on the sport. Athletes who participate in activities with repetitive jumping, braking, kicking, or running, such as basketball, volleyball, athletic jumping events, tennis or football, are at a higher risk. The most common risk factor for patellar tendinopathy is tendon overload from increased training intensity and/or duration. Other factors that may also contribute include decreased quadriceps strength, decreased flexibility, decreased joint mobility, anatomical/alignment issues, and decreased skill set for the sport. The key to rehabilitation is to decrease pain, followed by progressive strengthening with controlled loading of the tissue and incorporating power exercises prior to return to sport training.



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



Surgery is a possibility, but a last resort option in the case of patellar tendinopathy. We have a whole Toolkit of other options to try first!



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

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 word tendinopathy; it's important to us that you understand what it means!

Now you know more about tendons, loading capacity, and optimal loading, we can address treatment options that will allow you to load tendon 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!



GROUP23
SPORTS MEDICINE