

**PHYSICAL
THERAPY
SPECIALTIES**

KNEE PAIN

A photograph showing a physical therapist in a white lab coat examining a patient's knee. The patient is lying on a table, and the therapist is using their hands to palpate the joint. The image is overlaid with a semi-transparent green filter.

REPORT

Introduction



Staying active is so important for our health and well-being. Do not be left out when your friends and family are out enjoying activities. Find out what can be done about your knee problem!

Let's start by talking about how our knee is made and how it functions. As you understand this, you will have an easier time deciding what to do about the problems you experience and which treatment options to choose. Our knee is what we call a "simple hinge joint". This means that the knee is designed to only move in two directions: bending and straightening. Most of the time knee injuries are caused by either repetitive motions that cause our knee to twist, or by bigger injuries that force our knee laterally or into rotation. I will cover some of the most common injuries to the knee later in this report.

As you well know, many of our activities and sports move our legs in all directions, especially twisting and turning. These motions are meant to occur above and below the knee at the hip and the ankle/foot. Whenever a person is having trouble with their knee, and it wasn't caused by a direct injury to the knee where it was pushed into an unnatural motion, it is very important to look carefully at the person's foot, ankle, hip, and pelvis. A very common example of this is weakness in the muscles of the hip, allowing excessive side to side motion when a person walks. This places lateral and rotational stress on the knee and causes repetitive strain that eventually causes pain and wear and tear. If a person had a direct injury to the knee, during the recovery process, it is equally important to keep the foot/ankle and hip functioning at an optimal level to support the knee as a person returns to activities and sport

Common Reasons for Knee Pain and Treatment Options

Issue **Pain Surrounding the Kneecap (Patellofemoral Pain)** - This problem is usually most noticeable when a person uses stairs, squats, sits for a long period of time, and sometimes when running. The pain comes from the slick hard cartilage that covers the under surface of the kneecap or that covers the end of the femur (big thigh bone) where the kneecap slides up and down, becoming irritated or soft from improper movement of the knee cap. There are many nerves in this part of the knee and the pain that comes from this can be intense at times. Usually, the improper movement of the kneecap is caused by too much rotation happening at the femur (big thigh bone) because of weakness in the muscles of the hip or because of excessive motion at the foot and ankle. Flat feet are an example of this. Another cause can be something called “quad dominance” where the quadriceps muscle becomes very strong and tight, placing too much compression through the patella (knee cap). Ideally our leg strength should come from a balance between several muscles. In this case, it would come from sharing the work with the large gluteal muscles.

Treatment - Patellofemoral problems are almost always solved with physical therapy. Learning which muscles need to be strengthened or stretched, learning new movement patterns while squatting and exercising, getting proper footwear - sometimes an insert to wear inside the shoe, and getting some hands-on therapy to release muscles that have become too tight are examples of ways to solve this problem.

Issue **Arthritis** - in the knee is usually caused by wear and tear over time. Often a person had a knee injury earlier in life that recovered and later develops arthritis. Most people begin to have small degenerative tears in the meniscus that reduces the cushioning effect of the cartilage between the bones. Some people with arthritis can feel cracking in their knees and sometimes even grinding. The knee can feel warm from inflammation and low grade swelling often surrounds the knee. Because the knee hurts, it is common to avoid painful motions, and this results in weakness. The weakness results in even more stress to the knee which can become a vicious cycle. Even simple actions like getting up and down from a chair can become difficult and painful.

Treatment - Total knee replacements have been a wonderful invention, giving many people a “new lease on life”, allowing them to enjoy activities that once had been too painful, BUT not every person with knee arthritis needs to have knee replacement surgery. Some people respond amazingly to gradual exercise, heat, ice, and massage. At Physical Therapy Specialties, we have an indoor warm water pool that has helped people who wish to avoid surgery exercise in a pain free environment and as they build strength, often they don't feel the need for surgery because they have regained so much function. If you have knee arthritis, a consultation with a physical therapist is a great way to start. (Physical Therapy Specialties offers free “Discovery Visits” for this purpose). The physical therapist can help discuss your options depending on your particular situation and help you decide what the next step should be.

Common Reasons for Knee Pain and Treatment Options

Issue **Sprains, Strains and Tears** - These hurt and the injury and reason for the pain is usually obvious. A doctor should diagnose this with an MRI to help you understand exactly what structure was injured and what the course of action should be.

Treatment - Sprains and strains will heal on their own and are usually protected with a brace for a few weeks following physical therapy to help regain motion and strength. If a ligament has been torn, then it usually needs to be surgically repaired so that the knee is stable and sturdy again.

Issue **Meniscus Problems** - Our knees have a thick cartilage spacer between the top (femur) bone and lower (tibia) bone. There is one on the inside and one on the outside of the knee. They are called the medial and lateral meniscus. Just like other problems in the knee, these can be damaged due to the repetitive motions we described above in the second paragraph, or by a larger trauma where the knee is forced into an unnatural position. The meniscus can cause pain right along the joint lines on the inside or outside of your knee. Sometimes the knee will feel unstable like it might buckle or even catch and pop from somewhere inside. Meniscus tears usually cause some swelling and can cause swelling in the back of the knee where the fluid builds up. This is called a popliteal cyst.

Treatment - In the past, surgery was usually recommended for meniscus tears, but in recent years, doctors have tried to avoid surgery if possible. If the tear is near the outside portion of the meniscus where this is blood supply, the cartilage could heal naturally. If the tear is very large and on the inside of the cartilage some people are candidates for the meniscus to be repaired surgically. Sometimes the best option is for part of the meniscus to be removed surgically, but when this needs to be done we know that eventually that knee will develop arthritis, which we will discuss shortly. If the meniscus tears are from wear and tear, they are called “degenerative meniscus tears” and usually they are not treated surgically because arthritis usually rapidly develops. Meniscus problems are usually diagnosed by an orthopedist who orders an MRI. From there, the best course of treatment would be discussed. For smaller tears and degenerative tears, the doctor would order physical therapy to reduce pain, swelling, tightness and to optimize strength in the supportive muscles. A large tear would be treated surgically.

Next Steps

Where do you go from here?

If you are experiencing knee pain and would like to discover what the best course of action would be for your particular condition, we have the solution for you! One of our physical therapists would be happy to perform a brief assessment at no charge to help you find a solution. We are here to help!

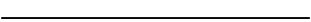
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Schedule a discovery visit on our website

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About the author

Ida Hirst, PT has been practicing physical therapy for over 30 years. She established a private practice in Pleasanton, California in 1989 where she has helped hundreds of people suffering from knee pain recover and begin enjoying an active lifestyle once again. She continues to study the latest techniques developed in the field of physical therapy, health and wellness.



**There are options for your
knee pain, please let us
know if we can further help
you in your healing journey**

Contact

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