

# WHY DOES MY KNEE HURT?



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NATURALLY RELIEVE YOUR KNEE PAIN

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# Why Does My Knee Hurt?

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**A**mong American adults, approximately 25% have experienced knee pain that affects the function of their knee. However, if you try physical therapy, you can resolve your issues and get back to doing what you love. If you are experiencing stiffness or pain when you bend, kneel or walk, because your knee hurts, then this book is for you!

Pain and difficulty moving are symptoms of an underlying joint problem. The vast majority of knee pain is caused by poor joint movement, inflammation or weakness and restrictions in the muscles surrounding the joint. This occurs from injury to the joint, repetitive movements, prolonged positions or degeneration.

Too often we focus on the symptoms instead of the root cause of the problem. People turn to over-the-counter medications, prescription medications, and may even think an MRI is the solution. Unfortunately, the result is persistent pain or temporary relief without achieving any long-lasting results.



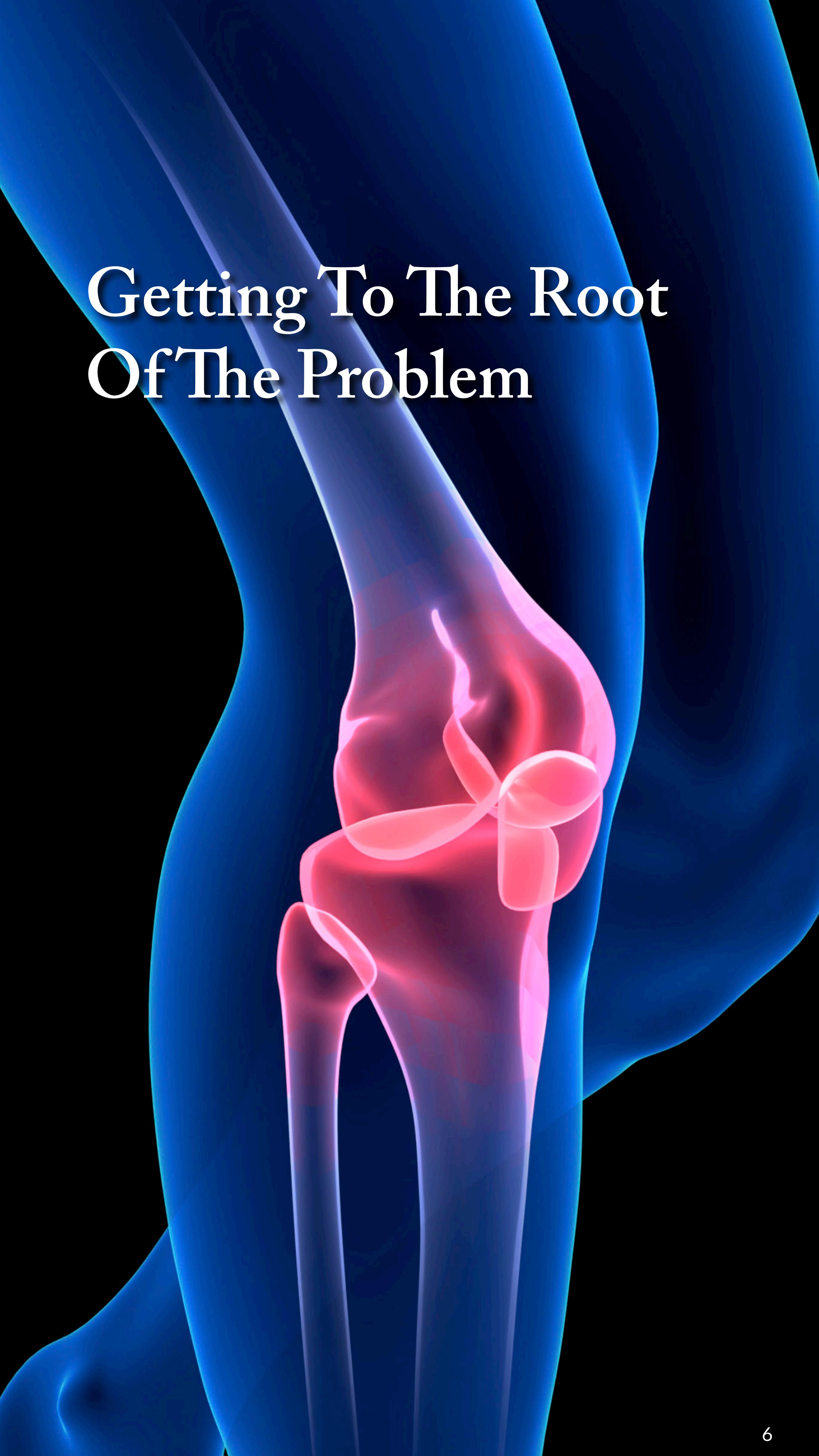
Physical therapists get results because we are the musculoskeletal experts! We focus on treating the root problems of knee pain. In this book, we are going to teach you what we do to alleviate joint pain, so you can improve the health of your knees and return to the activities you enjoy.



Knee pain is often called a mechanical problem, meaning there is a problem in how we move. Our physical therapists recognize this when prescribing treatment. Here are the main categories that most knee and hip problems fall under:

- Lack of joint mobility.
- Inadequate strength due to weaknesses or compensations.
- Degeneration/arthritis.
- Cartilage injury.
- Ligament sprains.
- Tendonopathy.
- Restrictions in soft tissue.
- Gait abnormalities.
- Lack of coordination and balance.
- Injuries (current or previous).
- Overuse injuries.

# Getting To The Root Of The Problem





**K**nee pain can be acute, such as after an injury, or chronic such as degeneration or overuse injuries. Whichever pain experience you have, it's a sign that something is wrong. If you don't address the discomfort, there will likely be more serious consequences in the future.

Most problems, acute or chronic, can be helped with the right treatment. Physical therapists perform comprehensive evaluations to identify the source of the problem and all the contributing factors that can affect recovery and long term outcomes. The sooner

you address the problem, the quicker you will see results. You will also lower your risk for long-term damage to your knee joints.

Take time to read and implement the pain relief strategies in this book. Your joints will thank you! If you want to know more about how we can help you alleviate your hip or knee pain for good, call us today to speak with one of our specialists.





# What You Need To Know About Physical Therapy



**P**hysical therapists typically have doctorate degrees from the Commission on Accreditation in Physical Therapy Education and pass a state licensure exam. Physical therapists are movement experts who improve quality of life through prescribed exercise, hands-on care, and patient education.

Physical therapists diagnose and treat individuals of all ages with injuries, disabilities, or other health conditions that



Physical therapists diagnose and treat individuals of all ages with injuries, disabilities, or other health conditions that need treatment.

need treatment. They evaluate orthopedic and neurological conditions that affect movement and cause pain. Many years of training go into a physical therapy evaluation of your joints, muscles, balance, coordination, and gait. With their advanced training in the musculoskeletal systems, a physical therapist can pinpoint the exact mechanism of your problems and, more importantly, determine how to resolve any issue that may be affecting your knee joints.

Physical therapists are experts in hands-on treatments such as therapeutic massage, joint mobilization, soft tissue mobilization and much more. In addition to hands-on therapy, a physical therapy session also involves specific exercises that target affected areas to reduce or manage pain, restore mobility, strength and coordination.

**"A PHYSICAL THERAPIST  
TEACHES YOU HOW TO TAKE  
CARE OF YOUR KNEES WITH  
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MECHANICS MODIFICATIONS  
FOR LONG-LASTING RESULTS. "**

A physical therapist teaches you how to take care of your knees with an exercise plan and body mechanics modifications for long-lasting results. Physical therapists can help people achieve fitness goals, regain or maintain their independence, lead active lives, and prevent future problems.

# How to Reduce Pain and Swelling on Your Own

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**S**welling is a major reason people experience pain, and too often, it is often overlooked and/or ignored too often. Usually people attribute swelling as a byproduct of pain, yet swelling is often the reason for pain. Swelling has also been shown to impair motion and strength. One of the most important steps you can take for relief is to address the swelling head-on.

Often, especially after an acute injury, swelling is noticeable and impossible to overlook. Most people have been taught to elevate and use ice to reduce the swelling. It is also common for people to use ice to alleviate pain, but the exact instructions are not always clear.

Ice is a vasoconstrictor, which means it slows blood flow. If you have an acute injury, using ice for the first 36-48 hours may help minimize the extent of your swelling. After 48 hours, there is no evidence that it helps with swelling.



Ice is an analgesic, which means it helps reduce pain. Using ice for pain relief is an excellent strategy. Icing for about 20 minutes at a time is a perfect general guideline. Using real ice for longer periods can cause injury/damage to the skin, and for people with other health concerns, using ice for shorter periods is recommended.

Compression is a very effective means to reduce and prevent swelling. Using compression helps move blood through your system more efficiently. This helps move the waste materials that build up during the healing process to get carried away efficiently, ensuring a speedy recovery.

process. Compression can be an ace bandage or compression garments.

Elevation is another important strategy for swelling control, but people often mistake lying in a recliner or with their feet above their heart as elevation. Elevating above the heart is better than nothing, but it is ineffective. In particular, for the knee, effective elevation means lifting the foot, so there's at least a 60-degree elevation angle.

### **To sum it up:**

- Use ice for 36-48 hours to minimize swelling.
- Use compression during waking hours.
- Elevate at 60 degrees 3-5 times a day for 20-30 minutes at a time.
- Use ice for pain relief: 20 minutes at a time as often as needed. Make sure the skin is warmed up before applying ice again.

The first step to a quick recovery is reducing pain and swelling. Remember, ignoring this vital first step will often lead to a longer, more painful road to recovery! A physical therapist can help you identify the most effective methods that will work best for you and your specific condition.

STEP 1:

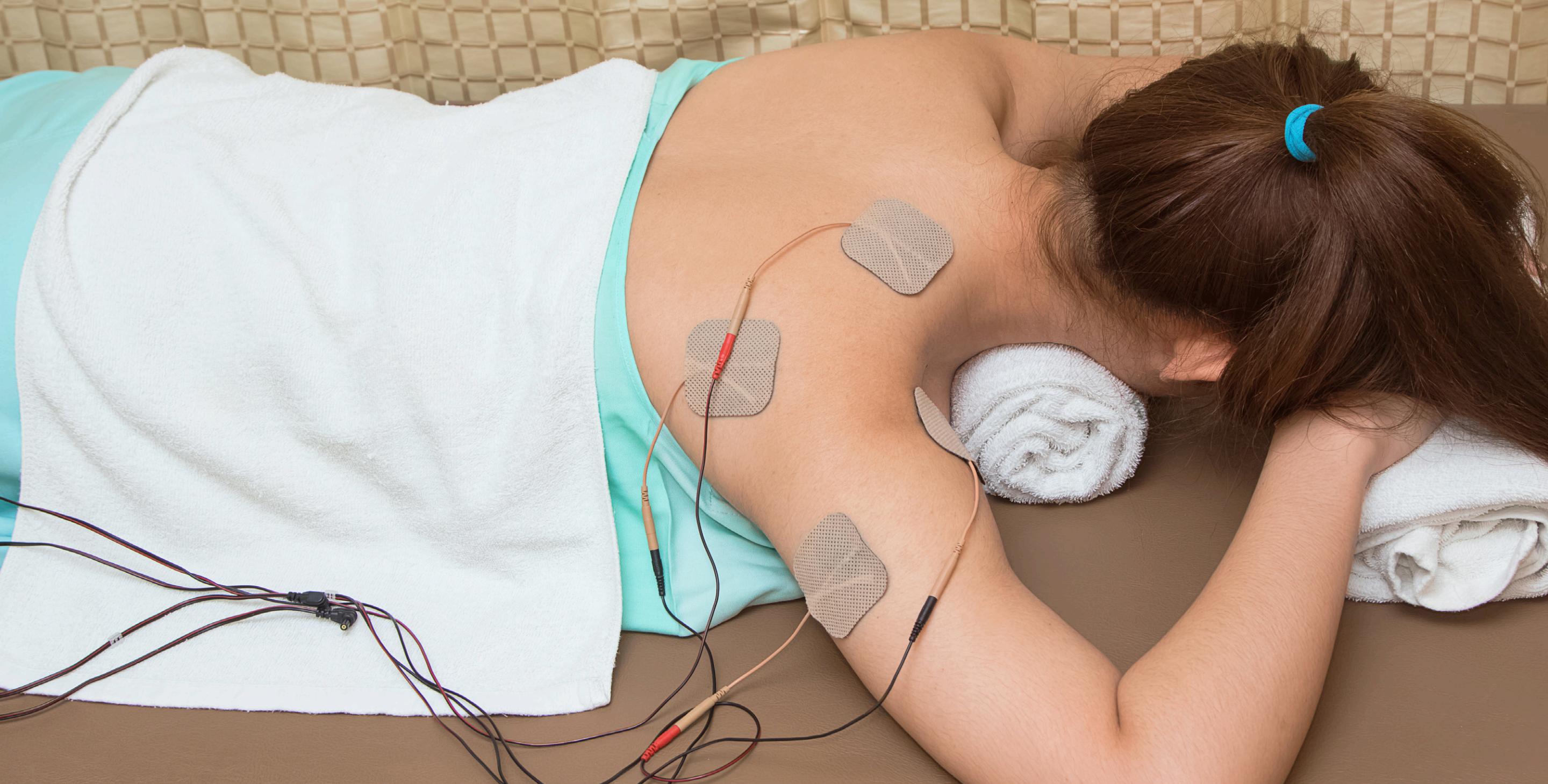
# Reduce Pain and Swelling



# The first step towards a successful outcome is to start with pain relief strategies and swelling control.

Are you living with persistent pain and swelling in your knees? Or do they catch and lock up on you? If you find yourself limping when you first start walking or experience pain when you squat or climb stairs, it's time to get your knees looked at by a physical therapist.

Pain is one of the most common reasons people seek help from a medical practitioner. The pain is often accompanied by swelling



but is often overlooked as a significant reason for the pain. Sometimes, the swelling is noticeable, like after an acute injury, but the swelling caused by chronic conditions is often more subtle and frequently overlooked.

The first step towards a successful outcome is to start with pain relief strategies and swelling control. When people attempt to ignore and push through pain and swelling, often the result is a delayed recovery.

Fortunately, physical therapists have strategies and modalities such as manual therapy techniques, electrical stimulation, ultrasound, and laser therapy to assist us in alleviating pain and swelling to boost the speed of your recovery! Prioritizing swelling control and pain management can help your ability to tolerate more activity and speed up the healing process.



**STEP 2:**

# Enhance Your Mobility

# Identifying the cause of your pain and injury is often difficult to do on your own.

Limitations in joint mobility are associated with persistent pain, dysfunction, and an increased risk of re-injury.

Identifying the cause of your pain and injury is often difficult to do on your own. Physical therapists are highly skilled at weeding through the different diagnoses and pinpointing the cause of your problems. Once a therapist identifies the underlying causes of your pain/injury, we will develop a plan targeted to restore your joint mobility.



## How to improve the mobility of your joints

Remember this slogan, “go to the pain, not through the pain.” It is rarely a good idea to stretch into pain. When trying to restore the range of motion in your knee, it is important to nudge the motion a little bit further every repetition to gain mobility. Forcing the movement or holding the position too long can lead to more pain and limit your willingness (or ability) to do the stretch again.

The most effective approach is to stretch within a comfortable range and gradually ease into deeper ranges. Joints respond to frequency, meaning the more often we move our joint, the better it feels and the quicker we recover.

Start with gentle stretches to restore the bending and straightening motions until you achieve your maximum range of motion. Starting with 5-10 second holds allows

your body to adjust to the movement and is often more tolerable than attempting to sustain a stretch for a more extended period. Prolonged holds are not always needed or tolerated when working on joint range of motion.

Dynamic stretching is another beneficial way to improve your mobility and blood flow. This form of mobility work involves moving a limb through its entire/maximum range of motion to the point where tension/stretch is felt and repeated several times in a given time. This stretch type helps re-educate the body on the proper movement patterns to restore joint mobility. It also can help activate muscles and improve coordination of the joints moving with one another.

## **How physical therapy helps your mobility**

One of the core principles of physical therapy is restoring mobility. A physical therapist improves the mobility of your joints with highly effective hands-on manual techniques. These techniques specifically enhance the function of your knee joints by mobilizing the joint and freeing up any restriction in the soft tissue surrounding the knee.

Physical therapists use joint mobilizations to simulate the joint's movements while the patient remains relaxed. There are also effective therapeutic massage techniques that alleviate the tension in muscles and loosen restrictions that may be impairing the knees' range of motion. These techniques require advanced training and education to correctly identify the most effective treatment for the most significant impact on mobility.

Our therapists undergo advanced training and education in order to perform these techniques and identify the most effective treatment for restoring mobility.

**Try these exercises  
to improve your joint  
mobility >>**



## Seated Heel Slides

- This exercise is used to regain/improve knee flexion (i.e., bending).
- Sit on the floor with your legs extended in front of you.
- Wrap a towel or strap around your foot and slide your affected heel toward your buttocks along the floor/bed.
- Hold for 3-5 seconds.
- Slide your heel back to the starting position and repeat 10 times.
- Perform 5 (or more) times each day.



## Knee Extension Stretch

This exercise is used to regain/improve knee extension (i.e., straightening).

While sitting in a chair, rest your heel and lower leg on a chair or coffee table.

- Keep your toes pointing up towards the ceiling.
- Allow your leg to straighten as far as possible without applying any effort. (Let gravity do the work)
- Hold for 1-3 minutes.
- Repeat 5 or more times each day until the knee can extend (straighten) fully.



**STEP 3:**

Improve Your  
Strength

# A stronger you means a healthier you.

The body's muscles play an essential role in the health of your knees. Your muscles not only help you move, but they help alleviate pain, reduce your risk of injury and support your joints to ensure you can stay active.

Strengthening is an integral part of alleviating pain, resolving injuries, and preventing future pain/injuries. It is also an essential aspect of effective physical therapy treatment. Whether you are recovering from an injury or an underlying condition causing you pain, strength training will help you get back to your optimum physical performance.



Weakness in the muscles that support the knee is a big problem for many people, especially after an injury or surgery. With an injury, or if you have a sedentary lifestyle, the strength of the muscles surrounding the knee joints can become unbalanced. This places enormous pressure on the knee joints, increasing pain and dysfunction.

Strength has been shown to alleviate pain and improve joint function while also helping to improve the following:

- Enhanced physical performance, movement control, walking speed, functional independence.
- Reduced fall risk (i.e., lower mortality, fewer serious injuries, quicker recovery.)
- Improved bone mineral density (i.e., prevention and reduction of osteoporosis.)
- Eases discomfort associated with arthritis.



After an injury to the knee, muscles often weaken due to the inability to move the knee properly or general inactivity due to pain. Without proper rehabilitation, your knees may not fully recover their strength and cause long-term dysfunction. Seeing a physical therapist after a sports or other type of injury is essential to the long-term health of your knee joints.

## **How strengthening can improve your joint stability**

Weakness or compensations in muscle function are often associated with knee pain and injury. For some, the main weakness is in the hip, which leads to improper control of the thigh bone (femur), which in turn causes problems at the knee. For others, pain and swelling due to knee joint injury have inhibited the thigh muscles.

The type of exercises your therapist chooses will depend upon which part(s) of your body needs strengthening. These exercises may include bodyweight exercises (such as squats, lunges, step ups) or exercises using additional tools (such as barbells, resistance bands, exercise balls, or hand weights).

Work on simple exercises to increase the strength and stamina of your leg and hip muscles. These include exercises to strengthen your hip, pelvic, and thigh muscles. Our physical therapist can teach you the proper exercises to do for your particular condition.

## **A few tips to remember when performing exercises at home**

The most effective way to get stronger is progressive, meaning gradually adding repetitions, sets, and/or weights. Steady progression is safer and more effective for long-term results. Remember, “go to the pain, not through the pain!”

Perform exercises that involve multiple joints at one time. For example, try step-ups, lunges, or squats starting within your comfort range and gradually progressing to full ranges.



Performing balance exercises increases your ability to properly engage your knee and hip muscles, so your body is prepared to handle unexpected challenges. This helps reduce your risk of falling and reduces the risk of injury in sports.

## **How physical therapy helps your joint stability**

Physical therapists are experts in treating knee problems. They have years of specialized training in examining how the body moves. By evaluating your joint motion, muscle strength, coordination, and how your body moves as a unit, we can pinpoint the root cause of your problem.

For example, if you have a weakness around the outer hip muscles, we can determine how it affects your knee. For some people, knee pain is a symptom of a problem above or below the knee. Once we identify the factors contributing to your pain, we will make a plan to perform targeted mobility work, specific hands-on therapy, and strengthening exercises to target that problem area.

As you regain strength and resolve limitations in joint mobility, your body's natural movements are restored. Whether you are dealing with a chronic problem or an acute injury, we can give you the tools to alleviate your knee pain and improve your ability to perform daily activities.

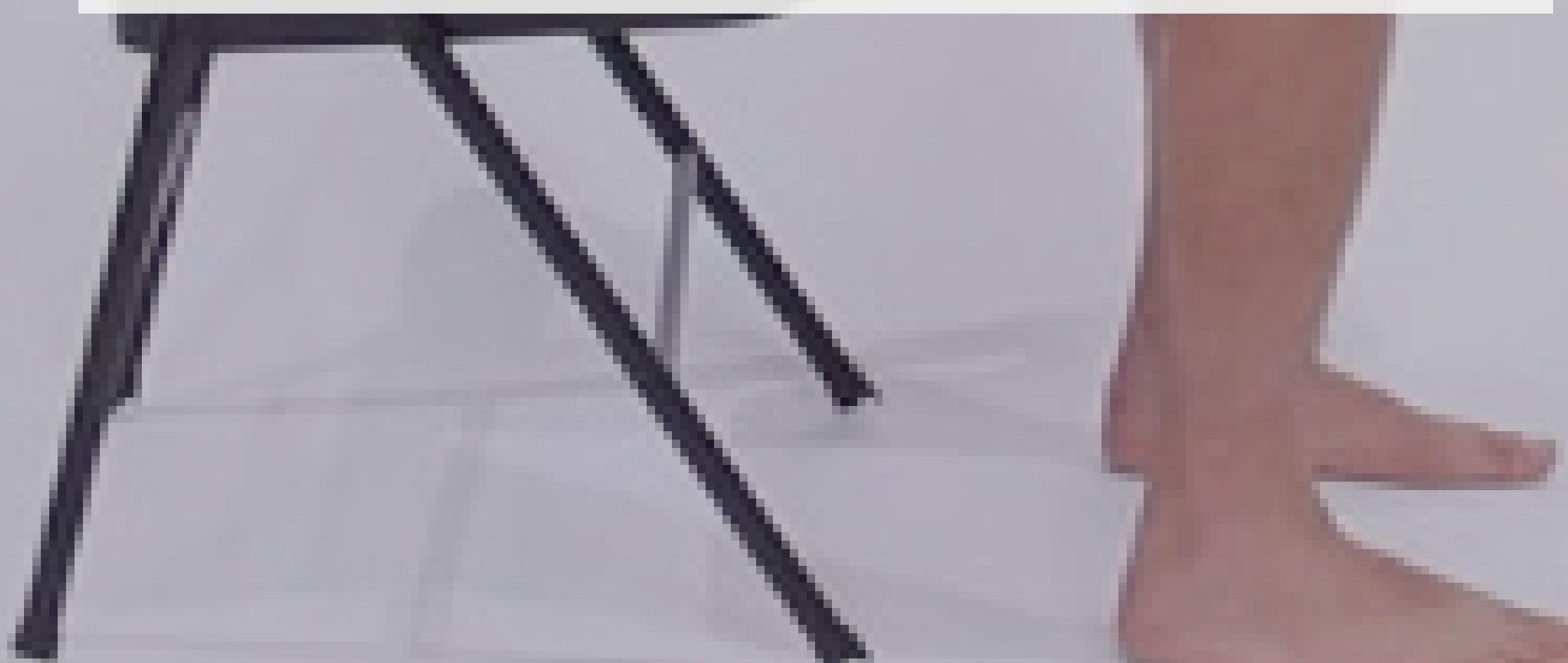
**Try this strength  
exercise to help  
your joints >>**



## Chair Squats

Stand in front of your chair, facing away from it, with a tall posture.

- Stick your buttock back while bending your knees (like you are going to sit down.)
- Gently tap the chair with your butt, but don't sit down.
- Then return to the original position.
- Perform 5-10 repetitions and gradually increase until you can do 20-25 in a row.



**STEP 4:**

# Restore Your Function for Lasting Results



# A stronger you means a healthier you.

Our goal is to quickly relieve your pain and make sure your knees stay healthy for the long run. One of the most important features of healthy joints is balancing and coordinating the muscles, allowing you to perform everyday activities and even more complex sporting activities. The final step is to restore your function, which provides for long-term joint health and the capability to handle strenuous movements.

Your lower extremity movement is complex, with many muscles that have to move at the right time and right place. As we age and



after injury, our regular nerve feedback from our joints is significantly affected. This will affect the way you walk and perform your typical activities.

Most people are not aware of how their pain and injury have affected ordinary tasks until it is challenged. The good news is that you can vastly improve your coordination and balance with the right exercises and treatment. This leads to being more active, reducing the risk of injury, and preventing future injuries.

## **Tips to improve your balance and gait**

There are simple steps you can take to help restore your balance so you can take on everyday activities with confidence. For optimal results, it is best to consult with a physical therapist to

determine the best healing methods and avoid re-injury of the affected area.

At home, you can work on your balance by performing the following activity:

- Try to balance on one leg while holding onto a steady surface (i.e., a countertop or the back of a sofa).
- Start with a tall posture and lift one foot off the ground while looking straight forward.
- Try to maintain your balance without using your hand, or use it as little as possible to be safe.
- Work on holding your balance for up to 30 seconds without touching your opposite foot down and using the lightest touch possible with your hand.
- Once you get good at holding for 30 seconds, try to make it more challenging by closing your eyes.

## **How to improve your gait**

Walking is an effective activity to keep your knee joints healthy and function properly. Learning to walk correctly is a big part of knee rehabilitation for some people.



Here are some simple tips to help you improve your gait (the way you walk) and decrease the strain on your joints:

- Start with a tall posture. Imagine a string gently pulling you upwards through the top of your head. This can help bring your spine into a natural position that allows your center of gravity to be distributed appropriately over your joints, allowing you to move more freely.
- When walking, focus on taking your normal stride. Often, pain or an injury causes a shorter stride, leading to more pain or new compensations.
- Be aware of how your hips are moving when you walk. Do you notice the foot on your painful side is turning out away from your

body? Pain and/or injury often lead to a limp. Typically we turn our foot out to avoid pain when bearing weight through the leg. This abnormal pattern can lead to persistent pain at the knee or new pain and weaknesses due to the compensation.

- Notice if you are swinging your arms when you walk. Knee pain and injury often change how we walk, and many people limit how much they swing their arms. We naturally use our trunk muscles when our arms swing, which is essential for your spine and hip coordination.
- Try to walk daily for at least 20-30 minutes. Try speeding up your walking to change your stride length and utilize your muscles differently. Avoid surfaces with an incline to one side, such as roads with a significant camber.
- Avoid falling for the sales pitch when buying a new pair of shoes/sneakers. There is no right shoe that works for everyone. Remember, you are unique, and the most important feature of any shoe/sneaker is that it is comfortable. Remember the “Goldilocks Rule,” not too little or too much cushion and support! Wear comfortable shoes that feel good when you walk.

## **How PT helps you improve your balance and gait**

A physical therapist can pinpoint your exact problem by examining your mobility, strength, balance, and walking patterns. We will guide you through specific movement patterns that show where restrictions and weaknesses are. With this knowledge, a comprehensive plan is designed to restore your balance and gait to a natural condition so that you can return to pain-free walking and your usual lifestyle.

**Call Today To  
Find Out More**

## Why Physical Therapy Is The Right Choice

No matter what is causing your knee pain, physical therapy can help! Our highly skilled physical therapists will evaluate how your knee joints move and function. Our evaluation process quickly pinpoints the root cause of your problem. Then, through an individualized plan of targeted hands-on techniques and therapeutic exercises, we restore your joint mobility, strength, and coordination.

If you have been dealing with knee pain or a recent injury, your first step should be to contact a physical therapist. Physical therapy can help you achieve your goals and get back to living a pain-free life. Imagine being able to easily squat down, kneel or walk comfortably without fear of your knee hurting. All this can happen by trying physical therapy first.

Physical therapy achieves much higher results and costs significantly less than other forms of treatment. In the rare instances that more invasive procedures are required, physical therapy is an important part of your recovery and helps you return to living a pain-free life.

**Schedule a  
consultation  
with one of  
our physical  
therapists.**