

FREE E-BOOK



PREVENT & RELIEVE

KNEE PAIN

6 STRATEGIES FOR NATURALLY
RELIEVING PAIN IN YOUR KNEES.

Physical Therapists are Knee Pain Specialists!

KNEE PAIN

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DISCLAIMER: The content in this booklet is not meant to replace the medical advice of your personal physician or physical therapist. Always consult your physician and/or physical therapist for specialized, one-on-one assessments and treatments.

If you're experiencing knee pain, we know how debilitating and seemingly helpless it can feel. Knee pain can affect your ability to work, perform, compete and, in the purest sense, actively participate in your daily life.

But as a sufferer of knee pain, it's important to know a few things right from the start:

You're Not Alone: One-third of the U.S. population will experience knee pain at some point in their lives. In fact, knee pain is the second most common cause of chronic pain. It's estimated that chronic pain affects 100 million Americans.

The Causes are Many: The list of factors that may cause and/or make you more susceptible to knee pain is quite long. Fitness level, weight gain and age, posture, work conditions and the general coordination and movement of your body can all contribute to knee pain.

Knee Pain Can Be a Sign of Other Things: Knee pain is often a sign of issues elsewhere in the body. A number of imbalances can exist from the feet up through the hips which cause irregular compression in the knee, which can manifest as pain and degeneration.

Movement Matters: While it's always good to listen to your body and rest your sore knees, exercise can still play a role in recovery and relief. Following an exercise regiment that focuses on flexibility and strength, with an eye toward muscular balance, can help prevent knee pain and injury.

Physical Therapists are Knee Pain Specialists: Physical therapists are experts in movement and function in the body. In this respect, a PT will thoroughly evaluate knee pain and injury, determine its true cause, and establish an individualized (and natural) course of treatment. *More on this later.*



One-third of all Americans have reported experiencing knee pain at one time or another in their lives.



Why do my **KNEES HURT**?

Knee pain can come in many forms. Knee pain that's immediate or sudden is considered **Acute Knee Pain**, and it can sometimes be caused by sudden or awkward movements, twisting, changes in direction, falls, and so on.

Acute knee pain can be a sign of something serious, such as sprained or torn ligaments, ruptured tendons, dislocation, or a meniscus injury. It's a good idea to visit a physical therapist or physician if you experience any of the following:

- Severe pain associated with an injury
- An inability to bear weight on the knee
- You have marked knee swelling
- You can't fully extend or flex the knee
- There's an obvious deformity in the leg
- You have a fever along with redness, pain and swelling

In contrast, **Chronic Knee Pain** is pain in your knees that lasts three months or more. The causes of chronic knee pain are many and may include such issues as:

- Osteoarthritis
- Bursitis
- Patellar mistracking
- Jumper's knee
- Runners knee
- IT band syndrome

Only a physician or a physical therapist can properly diagnose the specific conditions that may cause you to suffer from knee pain. However, a number of factors may put you more at risk to both acute and chronic knee pain. Such factors include being overweight, overuse, improper gait and footwear, muscle imbalances, and even muscle/ligament tightness.

1

THE 'PRICE' OF RELIEF

Most of us have heard of the term RICE when it comes to calling the steps many health care professionals suggest taking when applying first-aid to pain or injury — even in the knees.

'PRICE' is simply an extension of this concept ... with the added 'P' at the beginning for Protection. The remaining steps are the same: Rest, Ice, Compression and Elevation. Here's a breakdown:

Protection

If a particular activity or exercise is causing the most discomfort or pain, stop doing it! Protect your knees from further injury by simply listening to your body.

Rest

It's also a good idea to simply give your body a break for a day or two to let your knee tissues time to heal. This isn't an advisable long-term solution, however.

Ice

Some studies show that over the long term, icing can slow the healing process. But in the short term, ice can reduce both pain and inflammation.

Compression

Consider wrapping the knee or wearing an elastic sleeve to improve support and stability while also increasing your level of comfort.

Elevation

Of course, keeping your leg(s) raised can help with swelling and improve circulation to the places it's needed most: your knees.

Remember, PRICE isn't a long-term solution for chronic pain, but it can get you through short-term discomfort until you're ready to get back to life.



If a particular activity ... is causing the most discomfort or pain, stop doing it! Protect your knees ... by simply listening to your body.

2

KEEP MOVING YOUR BODY



Regular movement also helps the body "nourish the joints" ... keeping them hydrated while naturally pumping out wasteful byproducts...

In study after study, it's been shown that regular exercise can actually delay the onset of Osteoarthritis, which is one of the leading causes of knee pain. But, what if you already suffer from osteoarthritis in the knees?

Good news: exercise can benefit you, as well!

According to the Centers for Disease Control and Prevention [CDC] those with knee osteoarthritis who engage in moderate physical activity at least three times a week can reduce their risk of arthritis-related disability by 47 percent.

Beneficial Exercises

The key, of course, is to opt for exercise options that are low-impact and which do not lead to additional pain. "No pain, no gain," in other words, should never be your mantra.

Optimal exercises for those suffering from osteoarthritis in the knees include:

- Walking
- Cycling
- Swimming/Water Aerobics
- Yoga
- Tai Chi

Nourishing the Joints

Regular movement also helps the body "nourish the joints," so to speak, keeping them hydrated while naturally pumping out wasteful byproducts that could cause it harm.

Exercise can also help boost the health of cartilage tissues, which is critical in protecting the joint and ensure it moves correctly.

3

DIET & WEIGHT MANAGEMENT



Obesity is a major epidemic in the U.S. today. And, one of the negative effects of excess weight is the additional impact and pressure it puts on our knees throughout our lifetimes, leading to higher incidents of degeneration, pain and injury.

According to the Centers for Disease Control and Prevention [CDC], 72 percent of Americans are overweight or obese, which is one reason knee pain and injury is so prevalent these days.

It goes without saying, then, that better weight management and a healthier diet are essential in preventing both acute and chronic knee pain, along with many of the conditions that lead to such ailments.

Here's How:

Reduces Pressure on the Joint

Losing just one pound of body weight results in four pounds of pressure being removed from the knees when walking. That's 40 pounds of knee pressure removed for ever 10 pounds of weight lost. This is significant.

Reduces Inflammation

Lowering your weight while sticking with an anti-inflammatory diet (i.e., the Mediterranean diet) helps reduce inflammation in the knees and joints that lead to pain and disorder.

Slows Deterioration of the Cartilage

Research published in *Radiology* in 2017 showed that those who lose weight also significantly reduce their rate of cartilage deterioration in the knees.

4

STRENGTHEN THE LOWER BODY



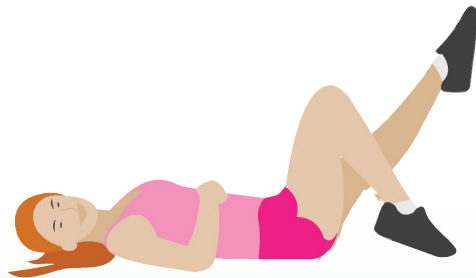
"There is no single medicine that comes close to what physical activity can do... Regular physical activity benefits body and mind."

While it's the biggest joint in our bodies, our knees are incredibly impressionable. From our feet, legs and up into our hips, our knees are incredibly susceptible to what's happening above and below them.

That's why it's important to focus on the strength (and weaknesses) of these areas when looking to prevent or reduce knee pain.

As you may assume from above, knee strength exercises don't actually strengthen the knee itself. The goal is to strengthen the muscles around the knee muscles which support the joints and keep them moving smoothly.

The following are exercises you can try which work to strengthen these essential muscles around the knee, doing so in a way that keeps the muscles balanced and the knees working the way they should.



1. Leg Raises

Lying on the floor, bend the right leg slightly with the floor flat on the floor while keeping your left leg flat. Taking care to hold your back flat to the floor, slowly lift the right leg without bending the knee. Hold about 12 to 15 inches off the floor for 5 seconds, then lower. Repeat three times, then switch legs.

2. Step Exercises

Using a step or box about 6 inches tall, step into the platform with just the right foot. Standing upright, lift your body so the lower foot is even with the top, but not supported by any weight. Hold for 5 seconds, then slowly lower the left foot back to the floor. Repeat 8 to 10 times, then switch legs.



3. Standing Hamstring Curls

Stand up straight, hands on your hips, with your feet close together (though not touching). Slowly bend on knee back until your reaches at least 90 degrees. Hold for 5 to 10 seconds, then slowly bring back to the floor. Repeat 10 times, taking care not to lock your straight leg. Switch to the other leg and repeat.

4. Chair Dips

With your back to an open chair, place both hands firmly on the seat behind you, gripping so not to slip. Keep both feet on the floor so your knees bend at 90 degrees. To start, bend both legs at the knee, keeping the knees above or behind the toes. Lower your backside down to within 6 to 8 inches from the floor, then use your legs and arms to raise yourself back up. Repeat.



5. Wall Squats

Standing with your back, shoulders and head to the wall and your feet about 18 to 24 inches away from the wall, slowly slide down the wall until your body reaches a normal sitting position. Hold for 5 to 10 seconds, then slide back to the position in which you began. Repeat.

5

STRETCH & IMPROVE FLEXIBILITY



Stretching is one of the simplest and more effective [and natural] knee pain treatments available.

Just as one's strength in the muscles around the knee can support stability and prevent pain and injury, flexibility in these areas are also critical in ensuring the long-term health of your knees.

According to the American Academy of Orthopaedic Surgeons, regularly performing stretching exercises that focus on your lower body will benefit flexibility and range of motion in your knee.

This helps reduce pressure on and around the joint while helping it move easier and more safely as you go about your life.

Areas to Target

It's important to remember your knee isn't a muscle. It's a joint surrounded by (and susceptible to) the condition of the muscles and tendons around it.

So, when stretching to prevent and reduce knee pain, exercises will focus on the following areas:

- Quadriceps
- Hamstrings
- Calves
- Hip Flexors & Abductors
- Iliotibial (IT) Band

Before You Start

Before you start stretching, spend some time warming up your muscles by doing a low-impact activity like walking, riding a bike, or doing 10 minutes on a cardio machine (i.e., elliptical, stationary bike, rower, etc).

Once your warm-up is completed, try out the following five stretches to help you relieve and prevent knee pain:

1. Leg Extensions

Sitting up straight on a chair, stool or bench, both feet flat on the floor in front of you, contract your thigh muscles and extend one leg as high as possible. Lower back down, the repeat 10 times. Switch and do 10 reps with the other leg, as well.



2. Straight Leg Raises

Lying flat on your back with your left leg bent and your right leg straight and flat on the ground, slowly lift the right leg to the approximate height of the neighboring knee. Slowly lower back down, repeat 10 to 20 times, then switch to the other leg.



3. Lying Hamstring Stretch

Lying flat on your back and your left leg flat on the ground or slightly bent, lace your fingers around the back of your right hamstring and lift the leg up off the floor. Keep the right leg straight but not locked, and pull until you feel a slight stretch in the hamstring. Hold for 30 seconds, then switch legs and repeat.



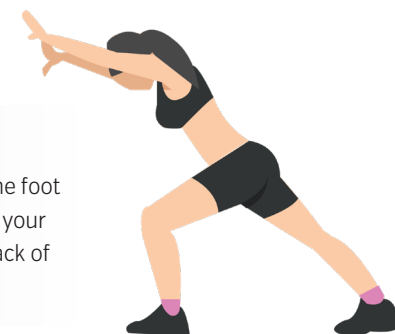
4. Standing Quad Stretch

Stand on one leg, holding something to support you, if necessary. With your right hand, reach back and grab your ankle, pulling your right heel toward your backside. Stop and hold for up to 30 seconds in a comfortable position. Slowly lower your foot back to the ground, then repeat on the other side.



5. Calf Stretch

Place your hands out toward a wall in front of you, stepping one foot forward and the other back. With your heels flat, slightly bend your knees forward toward the wall until you feel a stretch in the back of your leg. Hold for 30 seconds, then switch legs and repeat.



6

SEE A PHYSICAL THERAPIST!



Why should you **Get PT First?**

Physical Therapists (PTs) are specially trained to help diagnose and treat knee pain, and help individuals return to their normal activities without pain or limitation.

Following a thorough evaluation, a PT will develop an individualized rehab and/or wellness program to help ensure you can safely return to home, work, sports, or and active lifestyle. Physical therapists may apply the following to treat knee issues:

Pain management. Your PT may apply treatments to specifically reduce pain and promote healing — modalities such as ice/heat, ultrasound, or electrical stimulation.

Manual therapy. Your therapist will apply hands-on treatments to gently guide movement in areas affecting the knee to restore joint and tissue mobility.

Therapeutic exercises. A PT will likely prescribe personalized strength, flexibility, and endurance exercises which optimally align with your needs and goals.

Functional exercises. Your physical therapist will teach you specific exercises meant to address issues that may be preventing you from returning to work, competition and life.

Self-care instruction. Your PT always considers long-term care and comfort. This means teaching you ways to manage your pain at home and designing a safe, effective and individualized home-exercise program based on your specific condition and your short- and long-term goals.

Call us today to schedule a FREE knee pain consultation with our physical therapy team!