



UNDERSTANDING KNEE PAIN

TABLE OF CONTENTS

p. 01 Know Your Knee

p. 03 6 Tips to Help You Help Yourself to Decrease Your Knee Pain

p. 04 Top 10 Exercises/Stretches

KNOW YOUR KNEE

Do you have pain in your knee that keeps you up at night? Do you look at stairs and just groan? Have you stopped participating in the activities you love because of your knee pain? Are you experiencing frustration that you are losing your quality of life because of your knee problems? Can you no longer participate in your sport or leisure activities because of knee pain? If you answered yes to any of these then this booklet is for you!

Knee pain and injury can occur in any decade of life. It can be caused by injury or by overuse. Knee injuries are the most common injury in adolescent athletes with over 2.5 million sports-related injuries reported a year. Knee pain accounted for over 10 million doctor visits in 2017.

The knee joint is made up of four components:

1. **Bones:** femur (thigh bone), tibia (shin bone), and patella (knee cap)
2. **Cartilage:** Meniscus there are two a medial and lateral one. They act as shock absorbers or cushions to the knee joint.
3. **Ligaments:** they are fibrous tissues that connect the bones together to provide stability and there are four of them. ACL (anterior cruciate ligament), PCL (posterior cruciate ligament), MCL (medial collateral ligament), and LCL (lateral collateral ligament).
4. **Tendons:** these are fibrous tissues as well and they provide stability to the knee joint and are like ligaments but instead of linking bone to bone, tendons connect bone to muscle. The largest tendon in the knee is the patellar tendon, which covers the kneecap, and attaches to the quadriceps muscle.

Knees are most often injured during sports activities, exercising, as a result of a fall, or over time due to wear and tear. Knee pain can really put a damper on your day so here are some suggestions of things you can try immediately to help yourself.



6 Tips to Help You Help Yourself to Decrease Your Knee Pain

1. **Rest:** This means to respect your pain, stop doing the activities that cause your pain or increase your pain.
2. **Ice:** Applying ice to your knee joint as soon after an injury is essential to minimize the swelling and decrease secondary injury to the tissues surrounding the knee.
3. **Compression:** Providing a light compression wrap using an ace wrap or Coban elastic wrap will help decrease swelling and limit damage to surrounding cells. Just do not apply it to tightly. It should just feel like it is giving your leg a hug.
4. **Elevation:** Elevating your knee on pillows on the couch or floor helps to encourage draining of the swelling around your joint. It is best to elevate your knee above your heart to help gravity move the swelling out of your knee and re-circulate it back into your system.
5. **Strengthen:** Start contracting the quadriceps muscle (the big thigh muscle on the top of your leg) this will help pump the excess fluid out of the knee. You do this by sitting on the couch with your leg out straight. Tighten your thigh muscle so that the back of your knee pushes down towards the couch and your heel will raise up slightly. You should also notice your knee cap moving up towards your hip slightly. Hold this position for 10 seconds and repeat 10 times. Do this 2-3 times a day.
6. **Get some professional advice!** Sign up today to attend our workshop on knee pain, or call and set up an initial evaluation at a Fyzical Therapy and Balance Center near you as soon as possible. The Physical Therapist can evaluate you and find out for sure what is causing your pain. They will also refer you to appropriate medical practioners if any additional medical intervention is required. The Fyzical PT is the best person to advise you on the most appropriate exercises for you to do for your injured knee, and which things to avoid in order to get the quickest recovery possible. Last, but not least, if your knee pain is a result of a fall, Fyzical specializes in fall prevention and balance rehabilitation. They are the leading experts on balance and can help you prevent any more problems. So, sign up today for the workshop or call for an evaluation so you can LOVE YOUR LIFE!

TOP

10

EXERCISES/STRETCHES

1. Quadriceps stretch: Stand tall next to a wall or lie on your stomach, grab your right ankle with your right hand (or use a strap around right ankle) and gently pull your ankle towards your buttocks. Stretch until you feel a slight pull in the front of your right thigh. Hold for at least 30 seconds.
2. Hamstring stretch: Sit on the edge of a chair and straighten out your right leg and pull your toes and ankle towards your body. Sit up very straight and keeping your back flat gently lean forward until a stretch is felt from your buttock down to the back of your knee. Hold for at least 30 seconds.
3. Calf stretch: Place your right foot behind the left foot, keep your toes and heel in a straight line. Rock your weight forward onto your left foot bending the left knee but keeping the right heel on the ground. You should feel a stretch in the back of the right calf. Hold for 30 seconds. Then in the same standing position this time bend your right knee still with your heel on the ground. This time the stretch will be closer to your ankle. Hold this for 30 seconds.
4. Quad set and straight leg raise: Lie on your back with your legs straight, push down with the right thigh and flex your right toes and ankle towards your chest. You should feel your right knee cap move up slightly towards you. Hold this position while you lift your right leg up off the bed/table about twelve inches, count to five and lower slowly. Do 10 repetitions of this.
5. Side leg lifts (lying down): Lie on your right side with your right arm propping up your upper body and your left hand on the floor in front of you. Tighten your left knee like you are locking it straight. Then lift your left leg up towards the ceiling as high as you can without rolling forward or backward at the trunk. Hold for a five count, then lower slowly. Repeat 10 times.

6. Clams: Lie on your right side and bend both your knees up towards your chest stacking your legs on top of each other. Keeping your ankles together, slowly lift your left knee up towards the ceiling as high as you can go without rolling backwards. Hold for a 5 count and lower slowly. Repeat 10 times.
7. Bridges: Lie flat on your back, with your knees bent and feet flat on the floor. Squeeze your buttocks and tighten your stomach muscle, then slowly raise your buttocks off the floor high as you can without any back discomfort. Hold for 5 count then lower slowly and repeat 10 times.
8. Inner thigh lift: Lie on your right side, with your head resting on an outstretched right arm. Bend your left leg and place that foot on the floor behind or in front of your right leg. Straighten your right leg out and lock the knee and flex your foot towards you. Lift the right leg up in the air about 8-10 inches, hold for a 5 count then lower your leg back to the floor. Repeat 10 times.
9. Partial squats: Start from a standing position and hold onto a chair or counter if needed for balance. Slowly hinge at your hips and bend your knees moving into a half squat watching to keep your knees centered over your toes. Do not let your knees move over your toes. Keep your tailbone tucked and your core engaged to support your lower back. You can also squeeze a small ball between your thighs. Do this 10 times.
10. Heel raises: Stand next to a wall or hold onto a counter if needed for balance. Keep your feet flat and straight forward, raise up onto your toes slowly and hold for a 5 count and repeat 10 times. If this is easy you can perform the same exercise standing on 1 leg and raise one foot at a time.

All the above exercises were explained performing on just one leg but you can do them on both legs, or just the involved leg.



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