

Knee Pain



What is knee pain?

A common health concern for people of all ages, knee pain affects nearly 25% of patients age 65 and older.

Risk Factors

- Increased body weight (the most important)
- Certain physical activity
 Previous injury
- Increased age
- Muscle weakness



Anatomy of the Knee

Bones - Femur ("thigh bone"), Tibia ("shin bone"), Patella ("knee cap")

Provides the joint structure

Ligaments - Anterior (ACL), Posterior (PCL), Lateral (LCL) and Medial (MCL) Cruciate Ligaments

 Stabilizes front-to-back and sideto-side motion

Meniscus - Medial and Lateral Meniscus

The "shock absorbers"

Common Knee Problems

Disease	Causes	Signs & Symptoms		
Osteoarthritis	Repetitive stress over time or previous injury	Increasing pain with activity that decreases with rest; occasional morning stiffness (less than 30 mins)		
Gout	Kidneys inability to rid excess uric acid; diets rich in beer and red meat	Signifcant pain, swelling, redness and warmth in the joint, especially at night		
Baker's Cyst	Acute or chronic injury, causing an outpouching of a fluid-filled sac (synovium)	Fullness in the back of the knee; pain and stiffness with full extension or flexion of the knee		
Rheumatoid Arthritis	Hereditary smoking infections, or auto-antibodies	Pain, swelling and stiffness in joints		

Red Flag - if you experience a painful, swollen, warm to the touch knee with fever, or are unable to fully bend/straighten knee, seek emergent care.

Treatment

Pain Medications - Ibuprofen, Tylenol and/or steroids

Physical Therapy - strengthens the muscles around the knee to create stability and improve balance

Orthotics and Bracing - shifts pressure away from the painful side of the knee

Corticosteroid Injections - decreases inflammation (lasts a few months) Hyaluronic Acid Injections - eases pain and lubricates the joint Surgery - arthroscopic or total/partial knee replacement (last resort)

Strengthen

Mini Squat

- · Rest your back on wall with your feet 18-24" in front of you.
- Slowly bend your knees to < 90° (pain-free range only).
- Do not bend knees past feet.
- Hold for 2 counts, then slowly straighten your knees.
- To work the inner thigh, do the squat while squeezing a ball or pillow between your knees.
- · When this feels easy, hold weights.



Clam

- · Lie on your side with hips bent forward 45° with your feet together and your knees bent approximately 90°.
- Slowly rotate top kneecap towards ceiling until knees are approximately one hand-width apart.
- Hold for 3 counts, then slower lower your knee.
- . Do not lean your hips back or lift up your top foot.



Stretch

Hamstring Stretch

- Sit with one leg straight and the other bent to the side.
- Slowly lean forward with your chest until you feel a stretch along the back of your thigh. Keep your back straight while leaning forward.
- Do not reach forward with your hands.



Calf Stretch

- Place one foot with toes pointing forward behind the other foot.
- Keep the back heel down and back leg straight.
- Slowly bend your front knee until you feel the calf stretch in the back leg.



Standing Quad

- While standing on 1 leg, bend your opposite knee and hold the ankle.
- Slowly pull on the ankle until a stretch is felt in front of thigh/hip.



Crossover

- Lie on your back and cross the injured knee over your other leg.
- With the opposite hand, pull your knee up and over toward the opposite shoulder.
- Keep your foot flat on the ground.
- Hold when you feel an outer hip stretch.

