

Anatomy

The knee is composed of three bones: the femur (thigh bone), the tibia (shin bone), and the patella (kneecap). The ends of these bones are covered in a cartilage that allows them to glide smoothly over each other. Additionally, the menisci cushion these bones and prevent painful bone-on-bone rubbing. Over time, the menisci and cartilage can wear down. This can lead to bone on bone contact, which results in further wear, pain, and bone spurs.

Symptoms

Patients with osteoarthritis (OA) typically go through a progression of symptoms. Initially, the knee becomes stiff and painful with certain movements. Over time, swelling and painful grinding develops. The severity of these symptoms fluctuates and may continue to worsen. Patients with severe OA may have difficulty with any of the following: standing or walking, getting out of a chair, sitting for an extended length of time, and achieving a full range of motion.

Symptoms for knee arthritis are diverse in presentation and severity. The symptoms listed should be thought of only as a generalization of the symptoms associated with this disorder.

Diagnosis

A thorough physical exam and X-rays are crucial to diagnosing knee OA. X-rays allow your specialist to see the bony anatomy of the knee and determine the extent of your OA.



KNEE WITH OSTEOARTHRITIS

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KNEE OSTEOARTHRITIS

Treatment

The severity of your OA will determine the most appropriate course of action. For early-stage OA, physical therapy and antiinflammatories can be effective treatment. In more advanced cases, the following can be effective at relieving your symptoms:

Activity Modification: Patients with arthritis typically have to undergo some lifestyle modifications. If specific activities make your symptoms worse, then avoiding those activities can provide relief. Lowimpact exercises such as cycling, elliptical, swimming, and light strength training are the best options.

Anti-Inflammatory Medication: Oral antiinflammatories may be effective at decreasing inflammation due to injury. However, some people suffer from side effects while taking them. If you experience anything unusual when taking these medications, contact your specialist immediately to determine if continued use is appropriate.

Unloader Braces: Your specialist may prescribe an unloader brace. This brace acts to apply a force on the knee in such a way that the pressure on the worn area of the joint is relieved. You will need to wear this brace when participating in such activities as walking, hiking, etc. For some, this brace may provide significant symptomatic relief, allowing the enjoyment of physical activity again.

Steroid Injections: A steroid injection allows your specialist to place anti-inflammatory medication directly inside the joint. This can result in dramatic and potentially long-term relief of pain and swelling. If this does provide relief, you can safely have repeat injections done every three to four months without any harmful effects.

Physical Therapy: Your specialist may prescribe several sessions with a physical therapist to increase your range of motion and strength, and to decrease your pain. After several visits, your therapist may recommend a home exercise program to help maintain any gains you have achieved during therapy.

Joint Fluid Therapy: The only joint that the Food and Drug Administration has approved for this type of treatment is the knee. The medication is injected into the knee in three doses, typically spaced one week apart. The substance injected is hyaluronic acid, which helps to reduce friction between rough cartilage while cushioning the joint. This treatment can be done every six to nine months if your symptoms warrant it. Further information regarding this medication can be provided to you upon your request.

Ice is a convenient and inexpensive treatment option for knee pain. Placing a bag of ice directly on the knee for twenty minutes prevents swelling and inflammation from occurring inside the knee.

Finally, in the case of severe OA, surgery may be the best treatment option.

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Understand your condition. Know your next steps.

Arthroscopy: In this scenario, the specialist will use a miniature video camera and tools to remove any loose cartilage. The result is a smooth joint surface free of loose tissue and minimal internal derangement that can cause irritation. This can provide significant relief and allow the joint to flow freely through its range of motion. Arthroscopy is useful in early arthritis or with internal derangement to treat problems that could lead to more severe OA down the road.

Joint Replacement: In advanced cases of arthritis you may be a candidate for a total knee replacement. The techniques and prosthetics used in this surgery have made significant advances over the past decade. Patients who undergo a total joint replacement are living longer and getting more use out their new joint than ever before.

Together, you and your specialist will decide on the most appropriate treatment.



Summit's Vadnais Heights Surgery Center was awarded The Joint Commission's Advanced Certification for Total Hip and Total Knee Replacement. This facility is the first in Minnesota to receive the prestigious certification. The Joint Commission certification recognizes key outcome measurements in patient care as part of the selection and survey process.

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KNEE OSTEOARTHRITIS

What does my specialist recommend for me?

Your arthritis specialist has developed a treatment plan based on your specific situation. His or her recommendation, for you, has been selected from the treatment options below.

TREATMENT	DESCRIPTION	MY NEXT STEP
ACTIVITY MODIFICATION	Some arthritis symptoms can be relieved by avoiding activities that tend to make your symptoms worse.	Contact us if symptoms do not improve: (651) 968–5201
ANTI-INFLAMMATORY MEDICATION	Over the counter medications such as Aleve, Advil, Motrin, and aspirin can be used to help reduce swelling and pain.	Pick up medication, and start regularly taking it as your specialist recommends
PHYSICAL THERAPY	Physical therapists treat conditions with a variety of techniques and provide home exercise programs.	Set up a physical therapy appointment: (651) 968–5201
BRACING	A brace can provide support for the knee.	Set up a bracing appointment: (651) 968-5201
INJECTION	A cost effective alternative to surgery. A medication is injected directly into the inflamed joint in the physician's office.	Set up an injection appointment: (651) 968-5201
WELLNESS	Start with a free wellness consult to explore your goals and what tools are available to you.	Set up a wellness consultation: (651) 968-5766
INTEGRATED PHYSICAL THERAPY AND WELLNESS	Our team of physical therapists, performance specialists, and registered dietitians works collaboratively with you in designing an integrated rehabilitation plan that will help you reach your full potential.	Set up an integrated consultation: (651) 968-5766
SURGERY	Surgical procedures as discussed with your physician.	Set up a surgery appointment: (651) 968-5201

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