Frequently Asked Questions about:

Chronic Knee Pain due to Osteoarthritis

What is Osteoarthritis?

Osteoarthritis (OA) is a disease that affects joints. Where two bones meet in a joint, the bone is covered by a layer of cartilage that helps the bone ends move smoothly together when the joint bends and straightens. Over time, and with increasing loads placed on the joint, the cartilage surfaces can wear away. The bone responds to the loss of cartilage by growing in irregular ways. These bony growths make it harder for the joint to move smoothly, so the surrounding tissue becomes inflamed. This causes pain and stiffness in the joint.

What causes Osteoarthritis?

There are multiple factors that contribute to the development of osteoarthritis, including age, genetics, joint integrity, local inflammation, cellular processes, and mechanical forces. Your risk of developing OA is greater if you are female, overweight, and/or have participated in certain sports or occupations that have placed additional stress on your joints. Being overweight is the strongest modifiable risk factor for OA.

Can osteoarthritis be prevented?

Maintaining a healthy weight is the most effective way to prevent OA. If you are overweight, even a modest amount of weight loss will have a major effect. One large, longitudinal study found that losing just 10 pounds over 10 years cut the risk of developing OA by 50%.

Is there a cure for osteoarthritis?

Unfortunately, there is no medication that will reverse damage caused by osteoarthritis or slow the progression of joint damage due to the disease. Anti-inflammatory medications can help with pain and inflammation. However, the best way to improve joint function is to strengthen the muscles surrounding the joint and reduce the total weight that the joint must support throughout the activities of daily living. As the joint becomes stronger, you will experience less pain.
I am trying to lose weight, but my knees hurt most when I am walking and standing. That makes it hard to exercise. Besides changing my diet, what else can I do?

Many people who suffer from OA in their knees are afraid that exercise will make their pain worse. While additional activity may increase pain momentarily or in the short term, many studies have shown that exercise ultimately reduces pain, improves physical function, and improves quality of life for people with OA. The best exercise options for those with knee pain from OA are activities that strengthen the leg muscles while also reducing the amount of body weight placed on the knee joints. Swimming and biking are two activities that have been proven to be highly effective methods of exercise for improving arthritis symptoms. Not only do these activities strengthen the joint, they can also contribute to weight loss. In one randomized study, sedentary middle-aged and older adults began either biking or swimming at moderate intensity (60-70% of heart rate reserve). They exercised three times a week for 45 minutes. After 3 months, participants in both groups reported 40% reductions in joint pain, 30% reductions in stiffness, and 25% reductions in functional limitation.

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Are there any exercises that I should avoid?

Any exercise that can be done without causing additional pain and swelling is ok. Activities that tend to lead to additional knee joint loading and mechanical stress include stair climbing and descent, running, and fast walking. If walking is your chosen exercise, choose a walking speed that does not increase your pain or cause swelling. If stairs are causing you increased pain, avoid them.
I am considering a gym/pool membership. In the meantime, are there any strengthening exercises that I can start with at home?

SIT TO STAND - If it is too painful, don’t sit all the way down. Move within pain minimal motion.

Start by sitting in a chair. Next, raise up to standing with or without using your hands for support.

- Repeat: 12 Times
- Hold: 1 Second
- Complete: 2 Sets
- Perform: 2 Time(s) a Day

LONG ARC QUAD - LAQ - Do not do if it creates too much pain, or use a smaller motion that does not cause increased pain levels and progress to full motion as it is tolerated.

While seated with your knee in a bent position, slowly straighten your knee as you raise your foot upwards as shown.

- Repeat: 15 Times
- Hold: 2 Seconds
- Complete: 2 Sets
- Perform: 2 Time(s) a Day

QUAD SET

Tighten your top thigh muscle as you attempt to press the back of your knee downward towards the table.

- Repeat: 15 Times
- Hold: 3 Seconds
- Complete: 2 Sets
- Perform: 2 Time(s) a Day

Seated March

Sit at front edge of chair. Find Lumbar Neutral. Lift one leg at a time maintaining neutral spine.

- Repeat: 15 Times
- Hold: 1 Second
- Complete: 2 Sets
- Perform: 2 Time(s) a Day
I'm not sure whether to join a class or just start exercising on my own. What do you think?

The most important factor contributing to the success of exercise as an arthritis treatment is adherence. To put it simply, it only works if you stick with it. Everyone is different, so there is no right or wrong way to start exercising. Many people find that they need some guidance in the beginning to find what works best for them. That might come in the form of a class, a trainer, or a physical therapist. Once you establish a favorite exercise routine, you may find that you can perform it independently. Your doctor is available to support you with advice and referrals. Members of the Community Health Team can help you to find a program that’s right for you. Just ask for a referral, and we will connect you with the resources you need to start exercising and feeling better today!

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