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The Major Dirty Word for an Athlete... Arthritis

Arthritis. It's the word no one wants to hear when they go to the doctor. I have had patients avoid the doctor's office for years, fearing that they would be diagnosed with arthritis. More to the point, they worry about a recommendation to stop exercising and being active. However, being diagnosed with arthritis is not an endgame to exercise. There are ways to treat and manage the diagnosis and keep you in the game.

First, we need to understand what a diagnosis of arthritis means. Arthritis is characterized by a painful and inflamed joint anywhere in the body. There are many types, but the most common, and the one we will focus on here, is osteoarthritis. Osteoarthritis is the wearing down of the cartilage of the joints. Cartilage is essentially like a porcelain covering over the bone at the joint. It provides protection and cushioning and allows for smooth motion. Cartilage is like the tire treads on your car. The most common places for osteoarthritis are the knees, hips, hands and shoulders. Symptoms include joint pain (which can be sharp, dull, achy or stabbing), swelling, joint stiffness, loss of motion, a grinding sensation, clicking, popping, instability and a locking sensation.

Why does osteoarthritis occur? Here are the major causes:

- **Age** is the most common reason for osteoarthritis and one that you cannot control. As your body wears down over time, so does the cartilage on your joints. By the age of 70, the majority of the population has some level of osteoarthritis in their joints.
- **Genetics** is another major cause of osteoarthritis – and one that you cannot modify. People diagnosed with osteoarthritis often find that their mother, father and/or siblings have had a similar diagnosis. Researchers have discovered genes that can make you more susceptible to osteoarthritis.
- **Weight** is one of the most modifiable causes of osteoarthritis. Increased weight can cause increased forces through the joints, which wears down of the cartilage. Maintaining a healthy weight will decrease these forces and help prevent the destruction of the cartilage. For those who are overweight, losing weight also can help with pain. Every excess pound is 3-5 pounds of extra force through each knee. So, if someone is 10 pounds overweight this translates into 30- 50 pounds of additional force through each knee!
- **Gender** also is a factor. Up until the age of 55, osteoarthritis affects men and women at the same rate. After the age of 55, there is an increase in the female population.
- **Injury** to a joint results in microtrauma to the cartilage. This damage may not be initially apparent, but over time the cartilage degrades and osteoarthritis occurs. Osteoarthritis can set in within a year or even many years after the injury.

Before we get into treatment of osteoarthritis, let's discuss the rumor that exercising and, more specifically, running will cause osteoarthritis. There is a significant amount of research into exercise and osteoarthritis and there is some disagreement on this topic, but most medical professionals believe that there is not significant direct correlation between running

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and osteoarthritis. But this comes with some caveats. In a perfect world, a normal-weight runner who is light on their feet and has a perfect running gait and ideal foot strike has minimal chance of developing osteoarthritis. Conversely, an athlete who is overweight may be putting more force through the knee, which can cause degenerative changes of the cartilage. Also, an abnormal running gait or a heavy foot strike can cause abnormal forces through specific areas of the knee and can cause abnormal wearing of the cartilage. And running can also wear down the cartilage and increase pain if osteoarthritis is already present.

If you are diagnosed with osteoarthritis, it should not be the end of your exercise regimen. There are many treatment options available to control the pain and keep you moving, which should be your physician's goal. With that being said, sometimes the osteoarthritis may be too severe and your exercise routine may need to be modified to prevent further injury and uncontrolled pain. It is important to work with your physician on a detailed plan to keep you active for years to come.

Osteoarthritis cannot be cured. Once the degenerative changes have started, they cannot be reversed, but there are options to treat the symptoms. Here are some of them:

- **Exercise** is one of the most beneficial treatments. Exercise helps to lubricate the joint and stimulate blood flow, which may ease arthritic pain. Research has shown that low-impact exercise in particular helps to decrease arthritis pain. These exercises include walking, biking, swimming and working out on an elliptical machine. This does not mean that you cannot run if you have osteoarthritis, but modifications may be needed if pain develops and the osteoarthritis progresses. Your physician may recommend decreased speed and distance as well as cross training.
 - **Physical therapy** can be helpful to treat osteoarthritis. Strengthening muscles and addressing joint mobility can help to stabilize an affected joint and decrease pain. Think of your physical therapist as an automotive technician. If you have a car that is out of alignment, which causes the tires to wear abnormally, the technician can balance out the car to prevent further damage. Similarly, if you have muscle imbalances or abnormal exercise and gait patterns, a physical therapist can help normalize function and decrease pain.
 - **Anti-inflammatory medications** such as ibuprofen, naproxen and acetaminophen can be used to address pain. It is important to monitor intake because long-term use may cause stomach issues. It is also important to discuss the use of anti-inflammatories with your physician to prevent any interactions with other medications.
 - **Ice and heat** can help, too. They may provide only temporary relief as they typically do not penetrate the joint to get directly to the cause of pain.
 - **Supplements** claim that they aid in helping with arthritic pain, but the only one that has arguably shown benefits of decreasing pain from osteoarthritis is glucosamine (at least 1,500 mg daily). Some research supports its use and other research has shown no benefit. If you are planning to try a supplement, I recommend you use it for a month. If you feel it helps, keep on taking it. If you don't think it is helping, then it probably isn't. Other recommended supplements include fish oil and turmeric.
 - **Bracing** can be beneficial to offload areas of osteoarthritis. They can be used for daily activities as well as exercise. Some argue that braces result in joint stiffness
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and decreased use of muscles, but this is not true. If braces are used appropriately, they will only be of benefit.

- **Injections** also can be used to address pain from osteoarthritis. The first injection is a steroid or cortisone injection. This is the most potent anti-inflammatory and it helps to decrease the inflammation that stems from worn-down cartilage. Another injection is viscosupplementation, also known as the “lubricating shot” or the “rooster injection” because it was developed using the comb of a rooster. It is like an oil change for your knee joint. Very viscous fluid is injected into the knee joint to coat and lubricate it and decrease inflammation.
- **Orthobiologics** are specialized injections that use the patient’s own body tissues to address pain. Two of the most common orthobiologics are platelet rich plasma and stem cell injections. These have been beneficial in addressing pain that stems from osteoarthritis, although they do not cure the degenerative changes or reverse the damage that has been done.
- **Surgery** should always be a last option. Surgery could include an arthroscopic intervention to “clean up” irregularities in the cartilage. There is also the option of replacing the knee joint if the pain is uncontrolled and there is a severe case of osteoarthritis.

No one wants osteoarthritis. But a diagnosis is not the end of exercise, so do not let it come between you and the activities that you enjoy. The earlier it is recognized and diagnosed the greater the likelihood that it can be addressed and treated to prevent worsening symptoms and help you maintain an active lifestyle.

If you have any questions or concerns regarding an injury or pain, please reach out to one of our experienced sports medicine physicians at Corewell Health Medical Group Orthopedics at (616) 267- 8860. You can also find more information about our orthopedic program and providers on our [website](#).
