



# Understanding the 4 Stages of Osteoarthritis

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## Osteoarthritis Disease Progression

Osteoarthritis is the most common type of arthritis and is what we most typically associated with “age-related arthritis.” This is because it commonly occurs due to aging, though it can have other causes. Osteoarthritis occurs when the bones rub against each other, which causes pain. This is caused when the cartilage between the bones begins to wear down, eventually wearing away completely. So, what are the 4 stages of osteoarthritis? Well, you should know it can occur in any joint, but most often occurs in the knees, hips, spine, and hands.

### What Are the 4 Stages of Osteoarthritis?

There are four stages of osteoarthritis.

The four stages are:

- **Stage 1** – Minor
- **Stage 2** – Mild
- **Stage 3** – Moderate
- **Stage 4** – Severe

#### Stage 1 – Minor

Stage 1 or minor osteoarthritis occurs when there is mild “wear and tear” of the joints. A little bit of pain may occur, though there may be no pain at all.

Typically, doctors will prescribe no treatment unless there is pain. A supplement may be beneficial, such as glucosamine and chondroitin. An exercise routine may also be prescribed.

#### Stage 2 – Mild

Stage 2 or mild osteoarthritis is when noticeable pain and stiffness begin to occur. On diagnostic imaging, bone spurs begin to develop. The cartilage is still typically healthy, though it may begin to breakdown due to increased production of enzymes, such as matrix metalloproteinases.

At this point, a healthcare provider may recommend a brace to improve pain and protect the joint from stress. A strength-building exercise routine prevents worsening of symptoms, as well as stabilizing of joints.

#### Stage 3 – Moderate

Stage 3 or moderate osteoarthritis is when the cartilage begins to significantly deteriorate. The gap between the bones begins to widen and collagen fragments break into the synovial fluid. In addition to pain worsening, the

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joints become inflamed, and activities of daily living become increasingly more difficult.

Any supplements and exercise treatments should be continued. In addition, a healthcare provider may begin to recommend pain-relieving medications, such as acetaminophen or non-steroidal anti-inflammatory drugs (NSAIDs), like ibuprofen. Prescription pain medications can also be prescribed. Weight loss is also recommended as excess weight places stress on joints. Healthcare providers may also prescribe physical therapy as well as steroid injections. Physical therapy can help the arthritis sufferer learn techniques to ease pain. Steroid injections reduce inflammation. There are also injections that assist with increasing the number of lubricating fluids in the joints.

#### **Stage 4 – Severe**

Stage 4 or severe osteoarthritis causes significant pain, limiting activity significantly. Bone spurs begin to overgrow, and the cartilage is almost completely gone, which can cause an inflammatory response. Pain is present all the time, even at rest.

When osteoarthritis has progressed to stage 4, severe osteoarthritis, typically surgery is recommended. Surgery is aimed at bone realignment, which aims to reduce the stress on joints. Occasionally a joint replacement is performed, where the joint is completely removed, and a prosthetic joint is placed.

#### **How Does Osteoarthritis Progress?**

Osteoarthritis is a degenerative bone disease that typically occurs because of aging. However, it can occur because of trauma, such as a car accident, or genetics.

Osteoarthritis may be isolated to a single joint, such as the knee. However, it can also progress to other joints in a sequential fashion. According to Grant W. Cannon, MD, Professor of Medicine, Division of Rheumatology at University of Utah, “In some cases, pain from OA in one joint (such as an ankle or knee) can prompt you to walk, stand or move differently. This can, in turn, force other joints (such as the hip or joints of the spine) out of alignment and predispose them to OA as well.”

In terms of progressing through the stages, there is no uniformity. Loss of cartilage occurs in three clinical forms:

- Slow and steady progression over several decades
- A rapid deterioration over a period of 12 to 24 months (known as rapidly destructive osteoarthritis)
- An intermediate form

#### **How Can You Slow the Progression of Osteoarthritis?**

To stop osteoarthritis from progressing to other joints, as well as progressing from one stage to another, the following tips are recommended.

##### **Reduce Weight or Maintain a Healthy Weight**

Excess weight places stress on the joints. Each gained pound places about four pounds of added stress on the knees, which can eventually breakdown cartilage.

Fat tissue also produces cytokines; cytokines promote inflammation. Losing even a few pounds can reduce joint stress and inflammation.

##### **Get Moving**

Though exercise may sound like the last thing that you want to do, it is the best thing you can do for your joints.

Exercise can keep the joints limber, the muscles strong, and can stabilize the knee and hip joints. It also has other

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benefits, such as keeps the heart and lungs strong, helps to reduce or control weight, and reduces the risk for diabetes.

30 minutes of activity is recommended on most days of the week, but this does not mean that you need to jump right in. Pick an activity and start small. Even adding in 10 minutes of activity on two to three days of the week and increasing incrementally can pack big benefits. Pick an activity you enjoy and stick with it.

### **Protect Your Joints**

Since your joints are already at risk, you need to protect them. Learn how to do tasks in a way that is safe, such as lifting with the biggest joints. It is also important to rest when you injure your joints, which gives them the opportunity to rest and recuperate.