

Osteoarthritis

CAUSES
AND
TREATMENTS



arthritis.org

What is Osteoarthritis?

Osteoarthritis (OA) is the most common form of arthritis, with 30 million Americans affected. In the past, OA was thought to result from years of wear and tear on joints. However, doctors now see that OA has multiple causes and is a disease of the entire joint.

What Happens in Osteoarthritis?

In healthy joints, cartilage covers the end of each bone. It provides a smooth, gliding surface for joint motion and acts as a cushion between the bones. In OA, this cartilage breaks down, leading to pain, swelling and problems using the joint.

Changes also occur in the underlying bone. Bony growths called spurs develop on the edges of the joint. Bits of bone or cartilage may float loosely in the joint space. The membrane lining the joint (the synovium) often becomes inflamed, leading to joint swelling.

Symptoms

OA can affect any joint, but it occurs most often in the knees, hips, lower back, neck, small joints of the fingers, and the bases of the thumb and big toe. The shoulders and jaw joints may also be affected. Other joints are rarely involved, except as a result of injury or unusual stress on the joint.

OA symptoms tend to build over time and can vary depending on which joint is involved, your age, weight, joint alignment, fitness and physical activity level. Some common joint symptoms include:

- Persistent or recurring pain, aching or tenderness.
- Stiffness and limited range of motion.

- Mild swelling.
- Clicking or cracking sounds.
- Enlargement of or changes to the shape of a joint.

Joints affected by OA usually hurt or feel stiff during or after use, or after not moving for a while. For example, you may find it hard to use the joint in the morning, but after moving for a few minutes, it may feel better. Then, later in the day it may hurt after use.

OA in the Hips

If your hips are affected by OA, you may:

- Feel pain or stiffness in the groin or buttocks.
- Feel pain or stiffness on standing and walking.
- Feel pain on the inside of your knee or thigh rather than in your hip. Also known as referred pain.
- Limp when you walk.

OA in the Knees

If your knees are affected by OA, you may:

- Feel pain, stiffness or a “grating” or “catching” sensation.
- Feel pain walking up or down stairs or getting up from a chair.

OA in the Fingers

If your hands are affected by OA, you may:

- Notice stiffness, redness, swelling, tenderness and aching.
- Develop bone spurs, causing the joints to become painful and enlarged.
- Feel pain at the base of the thumb.
- Have difficulty with pinching movements.

OA in the Feet

If your feet are affected by OA, you may:

- Feel pain and tenderness at the base of the big toe.
- Have bent toes that press painfully against the top of your shoe.

OA in the Spine

If your spine is affected by OA you may:

- Feel stiffness and pain in the neck and lower back.
- Feel pain referred into your neck, shoulder, arm, lower back or legs (sciatica) due to pinched nerves.
- Feel weakness or numbness in your arms or legs due to pinched nerves.

What Causes Osteoarthritis?

The cause of OA is not known. However, research has uncovered several factors that may increase your risk of developing OA:

Aging. OA becomes more common as people age. It usually begins after age 45, and it is most common in people over age 65.

Gender. OA affects both men and women. Up to about age 50, OA is more common in men. After age 50, it's more common in women.

Excess body weight. Being overweight or obese is a strong risk factor for developing OA and contributes to more severe symptoms. Excess body fat also produces chemicals that fuel inflammation.



To learn more about assistive devices, visit
www.arthritis.org/jointprotection

Joint injury. Injury to a joint, whether from sports or a car wreck, is another strong risk factor for developing OA.

Genetic factors. Your genes can play a role in OA risk, particularly of the hands.

Occupation. Any long-term activity that requires repeated movements may cause recurrent “little injuries,” putting you at a higher risk of OA over time.

How is OA Managed?

Creating an OA Management Plan

By communicating openly with all members of your healthcare team, you can shape the right OA management plan for you. A good treatment program can help decrease joint pain and stiffness, improve joint motion and increase your ability to do everyday activities.

The goals of OA treatment are:

- Controlling pain and other symptoms.
- Improving and preserving joint function.
- Maintaining a healthy body weight or losing weight (if overweight).
- Optimizing overall health and well-being.

Your plan may include physical therapy, occupational therapy, regular physical activity, weight control, stress reduction and medication. If these measures don't help, surgery may be considered.

Keep a health log so you'll be prepared to discuss joint pain, drug reactions, weight, mental health and the success of your treatment plan with your healthcare team members.

Physical Activity

One of the most beneficial things you can do to manage your OA is simply to move. Exercise is actually considered a treatment for OA – perhaps the most effective treatment – and not just a way to help you cope with the condition.

Your healthcare team can help create an easy-to-follow activity plan and advise you on how to manage limitations.

Try to incorporate the following three types of regular physical activity into your routine:

Flexibility and balance exercises. Slow, gentle stretches can help prevent joint stiffness and make it easier to get moving. Always stretch muscles while they are warm to reduce injury. Add balance exercises to help reduce the risk of falls. Yoga and tai chi incorporate both stretching and balance.

Benefits of Exercise in OA

Regular physical activity can:

- Make you feel better by releasing chemicals in your brain that reduce pain and boost your mood.
- Help you sleep better and give you more energy.
- Loosen stiff joints and help keep them moving.
- Provide nutrition to the joint.
- Strengthen and stretch muscles that help support and move your joints.
- Improve overall fitness.
- Make your heart and lungs stronger.
- Help you get to and stay at a healthy weight.

Aerobic activity. Any activity that gets your heart rate going will strengthen your heart and lungs. Water exercises, walking and riding a stationary bicycle are good options.

Strengthening exercises. Activities that maintain or build muscle strength and endurance are important for joint stability and function.

Nutrition and Weight Loss

Another key tactic to managing OA is achieving and staying at your recommended weight. Benefits include:

- Easing pain by reducing stress on weight-bearing joints.
- Enhancing your overall feeling of well-being.

The basic rule for losing weight is to eat fewer calories and increase your physical activity. Your healthcare team can help you develop a safe, simple weight-loss program. There is no “OA diet,” but in general you should eat a balanced diet centered on plant-based foods.

Assistive Devices

Assistive devices can help decrease your pain and improve your ability to move. They may include



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The Four-Pound Rule

Research has shown that every excess pound places an extra four pounds of pressure on your knees. Losing even a few extra pounds can make a huge difference in your pain level if you are overweight.

supports, braces, splints, shoe orthotics, reachers and grabbers, canes and walkers.

Physical and Occupational Therapy

You may find that OA limits your ability to exercise, walk, bathe, dress, climb stairs and do household chores. Physical and occupational therapists can help improve your ability to perform these activities and help you manage your OA by designing a program that may include:

- Improving your joint range-of-motion, muscle strength and endurance.
- Providing and fitting assistive devices to make daily activities easier.
- Showing you how to use heat and cold therapy.
- Teaching you principles of proper joint use and energy conservation.

Pain Management

Controlling pain is the hardest part of managing OA. Pain creates a vicious circle of inactivity, which leads to greater pain, and thus greater inactivity. The unpredictability of pain, the fatigue that comes with it and its impact on your ability to do daily tasks can lead to depression. However, most people note improvement in their OA symptoms with physical activity, physical therapy, occupational therapy or the other techniques discussed.

Your doctor also may recommend medications to help control pain enough to start an exercise program. Your doctor will work with you to decide what's best for you.

Analgesics

Analgesics are medications used for pain relief. Acetaminophen is a non-opioid (or non-narcotic) analgesic that doesn't reduce inflammation or

Joint Protection Tips

Use big joints for big jobs. When lifting or carrying, use your largest and strongest muscles in your arms and legs.

Pace yourself. Alternate periods of heavy activity with periods of rest.

Practice good posture. Stand and sit up straight.

Change Positions. To avoid stiffness, move around regularly.

Listen to your body. Increased pain or swelling after activity may indicate you overstressed your joints. Do less next time and take more breaks.

Vary the routine. To keep moving, stay strong and avoid injury, don't do the same activity every day.

Ease into it. When starting a new activity, take it slowly until you know how your body reacts.

Wear good shoes. Well-cushioned shoes can ease pressure on joints.

Ask for help. Don't try to do a job that is too big to handle alone.

Use protective gear. Wear joint padding when skating, playing soccer or hockey.

swelling, but it is helpful when pain is the main problem.

NSAIDs

Nonsteroidal anti-inflammatory drugs help reduce joint pain, stiffness and swelling. NSAIDs available over the counter are aspirin, ibuprofen and

naproxen sodium. Oral and topical prescription NSAIDs are also available to treat OA.

Injectables

Joint injections are often used by people with OA. Corticosteroids may be injected into an affected joint to relieve pain and swelling. Hyaluronic acid therapy involves injecting the joint with a substance found naturally in joint fluid that helps to lubricate and cushion the joint.



For a complete list of medications used to treat OA and potential side effects, go to www.arthritis.org/drugguide

Antidepressants

Some antidepressants relieve arthritis pain. Duloxetine has been approved by the FDA for use in treating chronic musculoskeletal pain.

Topical Pain Relievers

Topical pain relievers are available as creams, gels, patches, rubs or sprays that are applied to the skin over a painful joint. They may contain combinations of salicylates, skin irritants and local anesthetics to relieve pain. Some NSAIDs are available by prescription for topical use as well.

Nutritional Supplements

Glucosamine and chondroitin sulfate are nutritional supplements that many people believe offer relief from OA pain. Studies regarding their effectiveness have mixed results.

Avocado soybean unsaponifiables (ASU) are supplements shown in some studies to slow the progression of OA and improve symptoms.

Be sure to talk to your doctor about possible benefits and risks before taking these – or any – supplements.

Surgery

Most people with OA won't need surgery. However, surgery may be helpful if you have major joint damage, severe joint pain or disability due to mobility problems.

Several types of surgery are used for people with OA. Some involve removing or replacing damaged cartilage while others rebuild all or part of a joint



To learn more about surgery options for people with OA, visit www.arthritis.org/jointsurgery

Non-Medicinal Pain Relief

In addition to staying active and losing weight, you can fight OA pain with some tried-and-true remedies, including:

Hot and cold treatments. Usually applied directly to the painful site, heat may be more useful for chronic pain; cold packs may provide relief from acute pain.

Relaxation techniques. Train your muscles to relax and slow down your thoughts with techniques such as deep breathing, guided imagery and visualization.

Massage. Massage can help soothe arthritis pain, improve joint function, and ease stress and anxiety.

Acupuncture. Acupuncture, the practice of inserting fine needles into the body along special points, has been shown to control pain.

Positive attitude. A positive outlook can bolster the immune system and increase your ability to handle pain.



**It All
Starts
Here.**

We realize you didn't sign up for arthritis. Our family is probably one you never planned to join. But our **Live Yes! Arthritis Network is a special community where you'll find strength, support and solutions to live life to the fullest. Here are a few ways to start your journey:**

I WANT TO CONNECT with people going through a similar experience. **Go to liveyes.arthritis.org**

I LOVE DATA and want to know more about the latest research. **Go to arthritis.org/arthritis-cure**

I NEED PRACTICAL ADVICE and tools to improve my everyday life. **Go to arthritis.org/Tools**

NEED HELP NOW? Call us 24/7 at 844-571-HELP or visit arthritis.org.



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