

Managing Gout

A Review of the Research for Adults



Is This Information Right for Me?

This information is right for you if:

- Your health care professional* has said that you have gout.
- You are age 18 or older. This information is from research on adults.

* Your health care professional may include your primary care doctor, nurse practitioner, physician assistant, rheumatologist (a doctor specializing in diseases of the joints, muscles, and bones), orthopedist (a doctor specializing in injuries and disorders of the bones and muscles), or emergency room doctor.

This summary will answer these questions:

- What is gout?
- How is gout diagnosed?
- How is a gout attack treated?
 - » What have researchers found about medicines to treat a gout attack?
- What can I do to help prevent future gout attacks?
 - » What have researchers found about medicines to help prevent future gout attacks?
- What are possible side effects of medicines for gout?
- What should I think about when deciding about gout treatment?

What is the source of this information?

This information comes from a research report that was funded by the Agency for Healthcare Research and Quality, a Federal Government agency.

Researchers looked at 154 research studies on treating gout. The studies were published through March 2016. Health care professionals, researchers, experts, and the public gave feedback on the report before it was published.

You can read the full report at www.effectivehealthcare.ahrq.gov/gout-management.

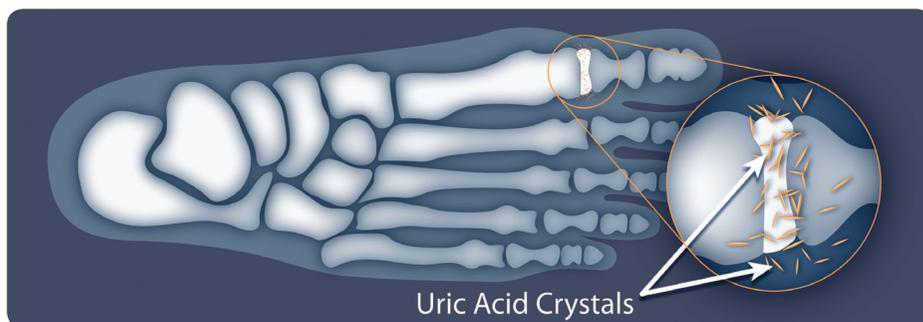


Understanding Your Condition

What is gout?

Gout is a form of arthritis. It causes severe pain, swelling, redness, and stiffness in the joints. Gout is the result of too much uric acid (a type of waste product) building up in your body. Uric acid is made when your body breaks down substances called purines. Purines are chemicals that are naturally found in the body and are in some foods (such as certain types of meats and seafood).

Normally, your kidneys remove uric acid from your blood. The uric acid then leaves your body in your urine. If too much uric acid is made or if your kidneys do not remove enough uric acid, it can build up in your body. When uric acid builds up, it can form tiny needle-like crystals in or around your joints.



Often, the first symptoms of a gout attack are sudden pain and swelling in one of your joints. The joint most often affected is the big toe, but gout can happen in any joint (such as the ankles, knees, elbows, or fingers). The joint may feel warm to the touch. The skin around the joint may look red.

Symptoms of a gout attack usually improve within about a week. But, an attack can happen again. Over time, attacks may last longer and may happen more often.

If gout is not treated, uric acid deposits called “tophi” (pronounced TOE-fye) can form over time as lumps under the skin. Gout that is not treated can also damage the affected joints.

How common is gout?

Gout is one of the most common forms of arthritis. As many as 8 million people in the United States have gout. Gout is more common in men. In women, gout is more common after menopause.

What increases the risk of gout?

The exact cause of gout is not known. But, certain things may increase the risk of getting it. You are more likely to have gout if other people in your family have it. Being overweight can also increase the risk of gout.

Some medicines may raise the level of uric acid in your body and lead to a gout attack. Such medicines include aspirin and some types of diuretics (“water pills”). Tell your health care professional all of the medicines you take, and always talk with him or her before you stop taking any medicine.

Certain foods and drinks may also increase the risk of a gout attack:

- Red meats (such as beef, lamb, and pork) and organ meats (such as liver and kidney)
- Seafood (especially shellfish, anchovies, and sardines)
- Foods and drinks that contain high fructose corn syrup (such as candy, cookies, sweetened soft drinks, and juices)
- Alcohol (all types, including beer, wine, and liquor)

How is gout diagnosed?

Your health care professional will talk with you about your symptoms. But, it can be hard to tell if a person has gout based on symptoms alone. Other types of arthritis can cause similar symptoms.

To help diagnose gout, your health care professional may also:

- Do a blood test to check the amount of uric acid in your blood
- Use a needle to remove some liquid from the affected joint to check for uric acid crystals
- Do an x-ray, ultrasound, or a dual energy CT (computed tomography) scan to look at your joints

Understanding Your Options

How is a gout attack treated?

It is best to get treatment for a gout attack within the first 24 hours after symptoms start. Your health care professional may suggest a medicine to reduce pain and swelling. This medicine may be:

- An NSAID (nonsteroidal anti-inflammatory drug)—such as ibuprofen (Advil®), indomethacin (Indocin®), or naproxen (Aleve®, Naprosyn®)—taken by mouth.
- An anti-inflammatory medicine called colchicine, taken by mouth.
- A corticosteroid, such as prednisone (taken by mouth) or triamcinolone (given as a shot into the affected joint).

What have researchers found about medicines to treat a gout attack?

Researchers found that:

- NSAIDs reduce pain from a gout attack.
 - » All NSAIDs work as well as each other to reduce pain.
- Colchicine reduces pain from a gout attack.
- Corticosteroids reduce pain from a gout attack as well as NSAIDs do.



What can I do to help prevent future gout attacks?

Medicines

To help prevent future gout attacks, your health care professional may suggest a medicine to lower the amount of uric acid in your blood.

Medicines that reduce the amount of uric acid your body makes include:

- Allopurinol (Zyloprim®), taken by mouth.
- Febuxostat (Uloric®), taken by mouth.

Note: It takes some time for allopurinol (Zyloprim®) and febuxostat (Uloric®) to start working. In fact, these medicines can increase the risk of a gout attack when you first start to take them. To help lower the risk of a gout attack, your health care professional may suggest that you also take an NSAID or colchicine for several weeks when you first start taking allopurinol or febuxostat.

What have researchers found about medicines to help prevent future gout attacks?

Researchers found that:

- Allopurinol (Zyloprim®) and febuxostat (Uloric®) both lower the level of uric acid in your blood. One does not work better than the other.
- Allopurinol (Zyloprim®) and febuxostat (Uloric®) do not lower the risk of a gout attack in the first 6 months of taking either medicine.
 - » But, they do lower the risk of a gout attack after taking either medicine for 1 year.
- Taking an NSAID or colchicine lowers the risk of a gout attack when you first start to take allopurinol (Zyloprim®) or febuxostat (Uloric®).
 - » An NSAID or colchicine works best to lower this risk when taken for longer than 8 weeks.
- Side effects happen about as often with allopurinol (Zyloprim®) as with febuxostat (Uloric®).

Other ways to help prevent future gout attacks

Your health care professional may also suggest other ways to help prevent future gout attacks, such as those listed below. More research is needed to know if any specific changes in diet or lifestyle may help.

- Get regular exercise.
- Drink plenty of water.
- Eat a well-balanced diet.
- Lose weight if you are overweight.
- Limit the amount of alcohol you drink.
- Limit the amount of red meat and shellfish you eat.
- Add certain foods or drinks—such as low-fat dairy products, cherries, and coffee—to your diet.



What are possible side effects of medicines for gout?

The following possible side effects of medicines for gout are listed by the U.S. Food and Drug Administration (FDA) and in reports from research. Just because a side effect is possible does not mean you will have it.

Medicine	Possible Side Effects	Warnings
NSAIDs (nonsteroidal anti-inflammatory drugs)		
Ibuprofen (Advil®), indomethacin (Indocin®), and naproxen (Aleve®, Naprosyn®)	<ul style="list-style-type: none"> ■ Headache ■ Dizziness ■ Upset stomach ■ Nausea ■ Pain in the belly 	<ul style="list-style-type: none"> ■ NSAIDs can increase the risk of serious stomach problems such as bleeding or ulcers. ■ NSAIDs can increase the chance of having a heart attack or a stroke. ■ People with kidney problems should talk with their health care professional before taking NSAIDs.
Anti-inflammatory medicine		
Colchicine	<ul style="list-style-type: none"> ■ Diarrhea ■ Pain in the belly ■ Nausea ■ Headache ■ Tiredness 	<ul style="list-style-type: none"> ■ In people with kidney and liver problems, colchicine can cause a life-threatening interaction when taken with certain other medicines. People with kidney and liver problems should talk with their health care professional before taking colchicine. ■ In rare cases, colchicine can cause muscle damage and blood disorders. ■ Taking more colchicine than prescribed can lead to overdose and death.
Corticosteroids		
Prednisone and triamcinolone	<ul style="list-style-type: none"> ■ Fluid retention (body tissues hold extra water) ■ Mood changes ■ Increased appetite ■ Weight gain ■ Insomnia (trouble falling asleep or staying asleep) 	<ul style="list-style-type: none"> ■ Corticosteroids can cause high blood pressure, high blood sugar, or both.

Medicine	Possible Side Effects	Warnings
Medicines to lower uric acid		
Allopurinol (Zyloprim®)	<ul style="list-style-type: none"> ■ Nausea ■ Diarrhea ■ Skin rash ■ Increased risk of a gout attack when first starting to take it 	<ul style="list-style-type: none"> ■ If you get a skin rash while taking allopurinol or febuxostat, call your health care professional right away. ■ In very rare cases, allopurinol and febuxostat can cause severe skin reactions that can be life threatening. Symptoms may include red, blistered, or peeling skin; red or sore eyes; fever; and sores in your throat, mouth, or nose. ■ Allopurinol and febuxostat may affect how well your liver works. These medicines can also cause liver damage. Signs of liver problems can include feeling tired and weak, nausea, vomiting, yellowed skin or eyes (jaundice), and dark-colored urine.
Febuxostat (Uloric®)	<ul style="list-style-type: none"> ■ Nausea ■ Skin rash ■ Joint pain (not caused by gout) ■ Increased risk of a gout attack when first starting to take it 	



Making a Decision

What should I think about when deciding about gout treatment?

You and your health care professional can decide what might be best to treat your gout attacks and help prevent future gout attacks. Here are some things to think about. Be sure to share your thoughts with your health care professional.

- How often do you have a gout attack?
- How do you feel about taking medicine to treat a gout attack?
- How do you feel about taking a medicine every day to help prevent future gout attacks?
- Which possible side effects concern you?
- How do you feel about trying other things, such as exercise, drinking plenty of water, and changing your diet to help prevent future gout attacks?

Ask Your Health Care Professional

- What problems can gout cause if not treated?
- Which medicine might be best to reduce pain and swelling when I have a gout attack?
- How can I help prevent future gout attacks?
- Might a medicine to lower the amount of uric acid in my blood help? If so, which one might be best?
- How long would I have to take the medicine?
- What side effects of the medicine should I watch for?
- Should I make any changes to my diet and alcohol use? If so, what specific changes should I make?
- Are there other things I can do that may help?

Notes:

Source

The information in this summary comes from the report *Management of Gout*, March 2016. The report was produced by the RAND Southern California Evidence-based Practice Center through funding by the Agency for Healthcare Research and Quality (AHRQ).

For a copy of the report or for more information about AHRQ go to www.effectivehealthcare.ahrq.gov/gout-management.

Additional information came from the MedlinePlus® Web site, a service of the National Library of Medicine and the National Institutes of Health. The site is available at www.medlineplus.gov.

Some information also came from the article "Management of Gout: A Systematic Review in Support of an American College of Physicians Clinical Practice Guideline," *Annals of Internal Medicine*, November 2016.

This summary was prepared by the John M. Eisenberg Center for Clinical Decisions and Communications Science at Baylor College of Medicine, Houston, TX. People with gout gave feedback on this summary.

