



Patient Information

Managing Gout: A Joint Effort

Gout is a common type of arthritis caused by a buildup of *uric* (**yoor-ik**) acid crystals in one or more joints, which leads to pain, swelling, and redness. Uric acid is a waste product produced by the body during the breakdown of *purines* (**pyuhr-eens**), substances found in human tissue and certain foods. Normally, uric acid is carried by the bloodstream to the kidneys and eliminated from the body through urination. But if too much uric acid is produced, or if the kidneys don't eliminate enough of it, uric acid can build up in the blood. This condition, known as *hyperuricemia* (hi-per-yoor-uh-**see**-mee-uh), sometimes progresses to gout.

Gout can be very painful, and its complications (such as joint damage, kidney stones, or kidney failure) can be serious. But by seeking care promptly and cooperating with your doctor, you can keep gout at bay.

How do I know if I'm at risk?

Gout is most common in men, women who have been through *menopause* (**men-uh-paws**), and people who have had an organ transplant. Having a family history of gout also increases your risk. Other risk factors include being very overweight; having had a joint injury or recent surgery; having hyperuricemia, kidney disease, high blood pressure, diabetes, or high cholesterol; drinking several alcoholic beverages per day (more than two for a man or more than one for a woman); eating a lot of foods that contain purines; and taking certain medications that can raise uric acid levels.

What are the warning signs?

The symptoms of gout—intense joint pain, swelling, and redness—usually come on suddenly, affect only one joint, and occur at night. Although the big toe is most commonly involved, any joint can be affected. Without treatment, the episode can last for several weeks.

After a first gout attack, it's likely that you'll have another one within a year or two. When gout is left untreated for several years, the time between attacks can shorten, the pain can intensify, and other joints can become affected. Eventually, chalky deposits of uric acid, called *tophi* (**toe-fi**), can form in the body's soft tissue. These tophi, which look like lumps under the skin, indicate bone and cartilage damage and appear only in the disease's most advanced stage, known as chronic *tophaceous* (tuh-**fay**-shuhs) gout. Early treatment usually prevents progression to this stage, so it's important to see your doctor at the first sign of gout.

What tests do I need?

Several other conditions—such as *pseudogout* (soo-doh-**gout**), which is caused by a buildup of *calcium phosphate* (**kal-see-um fahs-fate**) crystals in the joints—have symptoms that are similar to gout. In addition to asking about your symptoms and performing a physical examination, your doctor probably will need to order a few tests to rule out these other conditions and confirm that you have gout.

Your doctor may have your blood tested for hyperuricemia. Hyperuricemia isn't always present during a gout attack,

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though, and it's possible to have hyperuricemia and not have gout. The best way to confirm a diagnosis of gout is to remove a sample of fluid from the affected joint (using a thin, hollow needle) and examine it under a microscope. If uric acid crystals are present, gout is likely—although the absence of crystals does not necessarily rule out gout.

How can I avoid the problem?

Once you've been diagnosed with gout, the best way to reduce the frequency of future attacks is to follow the management plan you and your doctor develop. This will likely involve taking your medications as prescribed, visiting your doctor regularly, treating gout symptoms as soon as they appear, eating a healthy and balanced diet, exercising regularly, and drinking plenty of fluids.

Your doctor also may recommend avoiding certain purine-rich foods (such as red, organ, and processed meats; shellfish; dried beans and peas; and asparagus) and limiting your alcohol intake. Eating low fat dairy products may offer some additional protection. Maintaining a healthy weight is important, but rapid weight loss and high protein diets can raise your uric acid levels.

How is it treated?

The most common treatment for a gout attack is with *nonsteroidal anti-inflammatory* (non-stuh-royd-uhl an-tie-in-flam-uh-tor-ee) drugs, or NSAIDs. Although some NSAIDs are available without a prescription, they should be used under a doctor's supervision to minimize the risk of unwanted effects, particularly if you have high blood pressure, heart disease, kidney disease, or ulcers. Aspirin is not recom-

mended for treating gout because it can raise uric acid levels.

People who cannot tolerate NSAIDs often are prescribed *corticosteroids* (kort-ih-koh-stihr-oyds), which can be taken in pill form, injected directly into the affected joint, or injected into a muscle. Corticosteroids are very effective in reducing inflammation but can have serious side effects, particularly when taken for long periods of time.

A third option for treating gout attacks is *colchicine* (kahl-chuh-seen). This drug is most effective when taken within the first 12 hours of an attack. The downside is that it commonly causes diarrhea, nausea, vomiting, and other stomach problems.

Depending on the frequency of your gout attacks (along with other factors), your doctor also may prescribe medication to lower your blood uric acid levels. Drugs used for this purpose include *allopurinol* (al-oh-pyoor-uh-nol) and *probenecid* (pro-ben-uh-suhd). Unlike medications used to treat gout attacks, which are taken only while symptoms last, uric acid lowering therapy usually is continued for life.

More information about gout is available on the web sites of the National Institute of Arthritis and Musculoskeletal and Skin Diseases (http://www.niams.nih.gov/Health_Info/Gout/) and the Gout and Uric Acid Education Society (<http://www.gouteducation.org>). ●

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