



# FAMILY FOOT AND ANKLE CLINIC

SPECIALISTS AND SURGEONS

At Family Foot & Ankle Clinic, we are committed to providing you with the highest quality of care and ensuring you have all the information you need to make informed decisions about your health.

If you have any questions or concerns, please don't hesitate to reach out to us. You can contact our office directly at 763-421-7300. Additionally, you can visit our website at <https://familyfootmn.com/> for more resources and information about our services.

Thank you for choosing us for your healthcare needs!

## Gout

### What Is Gout?

Gout is a disorder that results from the localized buildup of uric acid in the tissues, causing painful attacks of inflammation in one or more joints. It is a type of arthritis (although it is different from the more common osteoarthritis and rheumatoid arthritis).

### Causes

Gout is caused by a chemical in the blood called uric acid (urate). Uric acid is usually harmless and is made in the body as a result of the breakdown of purines (chemicals found naturally in the body and in our food). Most uric acid is passed out in the urine and some with the stools (faeces). In people with gout, however, the amount of uric acid in the blood builds up, either because their kidneys have difficulty eliminating normal amounts of uric acid, or they produce too much uric acid in the first place. From time to time, the level of uric acid may become too high, and then tiny crystals of uric acid may form. The crystals typically collect in a joint, irritating surrounding tissues and therefore causing inflammation, swelling, and pain (i.e., the gout attack).

Gout occurs most commonly in the big toe because uric acid is sensitive to temperature changes. At cooler temperatures, uric acid turns into crystals. Since the toe is the part of the body that is farthest from the heart, it is also the coolest part of the body and, thus, the most likely target of gout. However, gout can affect any joint in the body.

The tendency to accumulate uric acid is often inherited. Other factors that put a person at risk for developing gout include: high blood pressure, diabetes, obesity, kidney damage, bone marrow disorders, lipid disorders (hypertriglyceridaemia), vascular disease, enzyme defects (HGPRT or G6PD deficiency), surgery, chemotherapy, stress and certain medications and vitamins. For example, the body's ability to remove uric acid can be negatively affected by

taking aspirin, some diuretic medications (“water pills” like bendroflumethiazide), some chemotherapy medicines, and the vitamin niacin (also called nicotinic acid). While gout is more common in men aged 40 to 60 years, it can occur in younger men as well as in women. Consuming foods and beverages that contain high levels of purines can trigger an attack of gout. Some foods contain more purines than others and have been associated with an increase of uric acid, which leads to gout. You may be able to reduce your chances of getting a gout attack by limiting or avoiding shellfish, organ meats (kidney, liver, etc.), red wine, beer and red meat.

### Symptoms

An attack of gout can be miserable, marked by the following symptoms:

- Intense pain that comes on suddenly, often in the middle of the night or upon arising
- Signs of inflammation, such as redness, swelling and warmth over the joint

### Diagnosis

To diagnose gout, the foot and ankle surgeon will ask questions about your personal and family medical history, followed by an examination of the affected joint. Laboratory tests and x-rays are sometimes ordered to determine if the inflammation is caused by something other than gout.

### Treatment

Initial treatment of an attack of gout typically includes the following:

- **Medications.** Prescription medications or injections are used to treat the pain, swelling and inflammation.
  - Short course of anti-inflammatory painkiller will quickly ease most gout attacks within 12-24 hours. Your doctor may recommend one of the following: indomethacin, diclofenac, naproxen. Many people with gout like to have a supply of tablets on standby in the home just in case an attack occurs. They are usually needed only for a few days until the inflammation and pain resolve.
  - Most people can take short courses of anti-inflammatory painkillers without a problem, although side-effects occur in some people:
    - Bleeding from the stomach is a serious possible side-effect. This is more of a risk if you are >65 years of age or have duodenal or stomach ulcer. Stop the tablets and see doctor immediately if you develop indigestion, have abdominal pain, pass black stools, or vomit or pass blood. Make sure to take any anti-inflammatory medication WITH FOOD.
    - Some people with asthma, high blood pressure, certain kidney problems, or heart failure may not be able to take anti-inflammatory painkillers. If you are in question, ask your primary care doctor if this is an acceptable treatment option for you.
    - Check with pharmacist to make sure anti-inflammatory medication does not adversely react with any of the other medications you are currently taking.

- E.g., Aspirin plus other anti-inflammatory medication can increase your bleeding risk. If this is the case, discuss with your Primary Doctor before taking the anti-inflammatory. They may advise you to take a proton pump inhibitor to protect your stomach if you need to take both medications simultaneously.
- Other treatments:
  - Colchicine or steroid tablets are alternative medications that ease gout attacks, although they are usually only used if you have problems with or cannot take anti-inflammatory medication.
  - If have had 2+ gout attacks within a year, have 1 or more tophi, have any joint or kidney damage due to gout, have one or more kidney stones made from uric acid, or have had a gout attack and are taking long term medication that can cause gout, your primary doctor may put you on a long-term, preventative medication (like allopurinol or febuxostat).
- **Dietary restrictions.** Foods and beverages that are high in purines should be avoided since purines are converted in the body to uric acid.
  - Reduce red meat (particularly beef, pork, and lamb), poultry meat, and seafood, as these are primary sources of purines
  - Aim to have no more than 1 serving of meat (including poultry) or fish per day, and it may be helpful to have 1-2 meat free days each week.
  - To make sure you are getting enough protein, include meat-free sources of protein, like eggs, low-fat dairy products, tofu, cheese, or nuts
  - Evidence suggests that plant foods are NOT associated with increased risk of gout, even if they have higher purine content
- **Fluids.** Drink plenty of water and other fluids each day, while also avoiding alcoholic beverages, which cause dehydration.
  - Ensuring sufficient fluid intake helps to reduce risk of crystals forming in joints. Aim to drink at least 2 litres per day. However, you may need as many as 3-3.5 litres per day depending on your weight, hot weather, or if you exercise routinely.
  - Drinking too much alcohol has been associated with gout for many years. There is more risk of gout attack from drinking beer compared to spirits, and wine drinking in moderation has no associated risk. Make sure to drink in moderation, if you choose to drink. Both men and women should not drink more than 14 units of alcohol per week. These units should be spread out throughout the week, and there should be at least two alcohol-free days each week.
    - A unit of alcohol is: 1) one 25 ml shot of spirits, 2) half a pint of standard strength lager/beer (3-4% alcohol by volume), 3) one small 125 ml glass of wine (11% alcohol by volume)
- **Immobilize and elevate the foot.** Avoid standing and walking to give your foot a rest. Also, elevate your foot (level with or slightly above the heart) to help reduce

swelling.

- **Avoid ice in the acute period.** This may perpetuate crystal formation, as crystals form more readily in cold environments.

The symptoms of gout and the inflammatory process usually resolve in three to ten days with treatment. If gout symptoms continue despite the initial treatment, or if repeated attacks occur, see your primary care physician for maintenance treatment that may involve daily medication. In cases of repeated episodes, the underlying problem must be addressed, as the buildup of uric acid over time can cause arthritic damage to the joint.

<https://www.foothealthfacts.org/conditions/gout>

<https://patient.info/foot-care/gout-leaflet>

<https://patient.info/news-and-features/gout-diet-sheet>