



Gout and OTC products for gout

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Introduction

Gout is a common type of arthritis. It is a painful and potentially debilitating condition that develops from deposits of uric acid crystals in the joints.^{1,2} The accumulation of crystals causes attacks of painful inflammation in and around the joints.³ Not everyone with high blood uric acid levels (called hyperuricaemia) develops gout. Up to two-thirds of individuals with hyperuricaemia never develop symptoms. It is unclear why some people with hyperuricaemia develop gout while others do not, but the symptoms of gout result from the body's reaction to deposits of uric acid crystals in the joints.¹

Uric acid crystals may also collect outside the joints and may even be seen under the skin, where they form small, firm, white lumps called tophi. Tophi are not usually painful. However, they may break down and discharge fluid containing gritty white material – the uric acid crystals themselves.³ Uric acid crystals may also form in the kidney or other parts of the urinary tract, where they may occasionally impair kidney function or form kidney stones.¹

Risk factors for the development of gout

Gout is more common among men than women. Usually, gout develops during middle age in men and after menopause in women. Gout is rare in younger people but is often more severe in people who develop the disorder before the age of 30.³

There are several medical conditions and lifestyle choices that increase the risk of developing gout. There are also certain characteristics that increase the risk of repeated attacks.¹ (Refer to Table I)

Table I. Risk factors for the development of gout

Gout is usually caused by the kidneys not flushing uric acid out of the body quickly enough. Factors that increase the uric acid level in the body include³⁻⁷:

- Eating too much meat and fish that are high in chemicals called purines
- Consuming beverages sweetened with fruit sugar (fructose)
- A low dairy intake
- Dehydration – not drinking enough water
- Consuming excessive amounts of alcohol on a regular basis, especially beer
- Lead poisoning (resulting from moonshine whiskey)
- Taking medications that affect blood levels of uric acid such as thiazide diuretics
- A family history of gout
- Fasting or crash dieting
- Injury to a joint
- Being overweight or overeating
- Chronic kidney disease
- Having type 2 diabetes, high blood pressure or high cholesterol – these conditions may mean that the kidneys are less able to flush out the uric acid
- An underactive thyroid gland (hypothyroidism)
- Psoriasis
- Recent surgery or trauma

Gout symptoms

Gout attacks (also called flares) are sudden episodes of extreme pain, usually with redness, swelling, warmth and tenderness in the joint.^{1,3,6} Often the joint is intensely sore to touch.⁷ The skin over the joint may appear red or purplish, tight and shiny.³ Although an attack typically affects a single joint such as the big toe, some people may develop a few inflamed joints at the same time. Gout attacks may be experienced in the foot, ankle or knees.^{1,2} Attacks often start overnight and in the early morning, without warning.⁶ However, they may occur at any time. The pain and inflammation usually reach their peak intensity within 12 to 24 hours and generally resolve completely within a few days to several weeks, even if untreated. It is not clear how the body “turns off” a gout attack.^{1,4,5} Another attack may not occur for months or years. Over time, these attacks may harm the joints, tendons and other tissues.^{4,5} After repeated attacks, gout may become severe and chronic and may lead to joint deformity. Over time, joint motion becomes

restricted by damage caused by deposits of uric acid crystals in the joints and tendons.³

Table II includes a summary of the signs and symptoms of gout.

Table II. Signs and symptoms of gout^{3,6}

Joint symptoms:	Other symptoms:
<ul style="list-style-type: none"> • Intense joint pain • Lingering discomfort • Inflammation and redness • Limited range of motion 	<ul style="list-style-type: none"> • Fever (which may reach 38.9 °C) • A general sick feeling • A fast heart rate (tachycardia) • Chills (rarely)

Treatment of gout attacks

Gout may be managed by combining a healthy lifestyle with appropriate over-the-counter (OTC) medications and prescribed treatment options. Early diagnosis and treatment is important. The primary goal is to reduce the level of uric acid in the blood so it cannot form crystals in the tissues or joints and cause joint damage. If the patient has had attacks of gout before, they should be advised to be on the “look-out” for early signs of another attack and take the prescribed treatment as soon as possible.⁴

The goal of treatment of a gout attack is to reduce pain, inflammation, and disability. Deciding which medication to use is based upon several factors, including a person’s risk of bleeding, kidney health, and whether there is a past history of an ulcer in the stomach or small intestine. Anti-inflammatory medications are often the first treatment option for acute gout attacks and are best started early in the course of an attack. People with a history of gout should keep medication on hand to treat an attack because early treatment is an important factor in determining how long it takes to decrease the pain, severity and duration of an attack.¹

Nonsteroidal anti-inflammatory drugs

Nonsteroidal anti-inflammatory drugs (NSAIDs) are effective in treating acute gout attacks and are generally well-tolerated.⁸ NSAIDs reduce both pain and inflammation. OTC NSAIDs include ibuprofen, diclofenac, naproxen and indomethacin.^{1,6,10} However, NSAIDs may cause gastrointestinal side-effects, such as nausea, diarrhoea, and stomach ulcers.⁹ NSAIDs are generally recommended for people who have no history of kidney or liver disease, who have no bleeding problems, who do not use anticoagulant medications such as warfarin and who have no history of a stomach or duodenal ulcer.¹

NSAIDs are most effective when they are started as early as possible in the attack and when used at higher doses, which have anti-inflammatory and not just pain-relieving (analgesic) properties. People who have had previous attacks may start taking an NSAID at the first signs of an attack.¹ Treatment should be continued for several days after the pain and signs of inflammation have resolved.⁸

Although aspirin is an NSAID, it is not usually recommended for the treatment of gout because it can, depending upon the dose used, either raise or lower uric acid levels in the blood.¹

Dietary changes

The following dietary guidelines may help protect against gout attacks^{4,6,7}:

- Keep hydrated – drink plenty of water
- Cut down on alcohol consumption and avoid binge drinking
- Limit the intake of meat, fish and poultry
- Substitute low-fat dairy products for other foods
- Maintain a healthy body weight
- Exercise regularly

Changes in diet are often recommended along with medications. Diet change alone is unlikely to lower blood uric acid levels by more than about 15 percent, even if the diet is severely restricted. On the other hand, when diet control is accompanied by weight loss (often with increased exercise), improvements in uric acid control may be more impressive.¹

Conclusion

The management of gout requires a comprehensive treatment plan. This includes eliminating offending risk factors and medications, instituting lifestyle changes and using appropriate medications. Patients with recurrent attacks should be referred to the doctor. If the patient has frequent episodes of gout, the doctor may prescribe the use of long-term medications to increase the excretion of uric acid. Patients who do not respond to treatment with OTC medications should also be referred to the doctor.

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