

GOUT

Gout is a painful and potentially debilitating condition that develops in some people who have chronically high blood levels of urate (commonly referred to as uric acid). Not everyone with high blood urate levels (called hyperuricemia) develops gout; up to two-thirds of individuals with hyperuricemia never develop symptoms. It is unclear why some people with hyperuricemia develop gout while others do not, but the symptoms of gout result from the body's reaction to deposits of urate crystals in tissues.

GOUT RISK FACTORS

Gout usually develops in adulthood and is rare in children. It commonly develops earlier in adult men (often at ages 30 to 45 years) than in women (usually after age 55), and is particularly common in people older than 65 regardless of gender. It is estimated that gout affects nearly 4 percent of adults in the United States.

There are several medical conditions and lifestyle choices that increase the risk of developing gout, including:

- Obesity
- High blood pressure
- Chronic kidney disease
- Injury
- Fasting
- Consuming excessive amounts of alcohol (particularly beer, whiskey, gin, vodka, or rum) on a regular basis
- Overeating
- Consuming large amounts of meat, seafood, or beverages containing high fructose corn syrup (such as non-diet sodas)
- Taking medications that affect blood levels of urate (especially diuretics)

In people already diagnosed with gout, there are also certain characteristics that increase the risk of repeated attacks. These include:

- Injury or recent surgery
- Fasting
- Consuming excessive amounts of alcohol (wine may also be implicated as a risk for additional attacks of gout in people who have had prior attacks)
- Overeating
- Taking medications that affect blood levels of urate

GOUT SYMPTOMS

Gout attacks (also called flares) are sudden episodes of severe joint pain, usually with redness, swelling, and tenderness of the joint. Although an attack typically affects a single joint, some people develop a few inflamed joints at the same time. Attacks start more often overnight and in the early morning hours than during the day, but they can occur at any time. The pain and inflammation usually reach their peak intensity within 12 to 24 hours and generally improve completely within a few days to several weeks, even if untreated. It is not clear how the body "turns off" a gout attack.

The characteristic pain and inflammation of gout develop when white blood cells and cells in the joint linings attempt to surround and digest urate crystal deposits. These cells recognize the crystal deposits as foreign material and release chemical signals that contribute to the pain, swelling, and redness associated with a gout attack.



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GOUT DIAGNOSIS

There are many illnesses that can cause joint pain and inflammation. Gout is strongly suspected if a person has an acute attack of joint pain, followed by a period in which there are no symptoms. It is important to confirm the diagnosis of gout to ensure that potentially harmful medications are not taken unnecessarily over a prolonged period of time.

The best way to diagnose gout is to examine the fluid lining the joint (synovial fluid) from an affected joint under a microscope to look for urate crystals. To obtain the fluid, the provider uses a needle and syringe to withdraw a small amount of fluid from inside the joint. Tophi located just beneath the skin can also be sampled with a needle to diagnose tophaceous gout.

However, some clinicians do not have the facilities to check for urate crystals in the synovial fluid when symptoms are present. In this case, the tentative diagnosis is based upon a person's symptoms and a physical examination. Criteria for suspecting gout include:

- Rapidly developing pain and inflammation initially involving one joint at a time, especially the joint at the base of the large toe
- Complete resolution of symptoms between attacks
- A blood test showing high levels of urate (most accurate for diagnosis after an acute flare resolves)

TREATMENT OF GOUT ATTACKS

The goal of treatment of flares of gouty arthritis is to reduce pain, inflammation, and disability quickly and safely. 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. Antiinflammatory medications are the best treatment 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.