

Uric Acid Gout

A form of inflammatory arthritis, gout can cause extreme pain in the joints and its most often in the big toe. We will be discussing symptoms, causes and risks of gout. Over and above this we will also discuss how to prevent and treat gout.

When we discuss about **joint pain causes and treatment** it becomes necessary to talk about gout.

Gout is one of the most common form of inflammatory arthritis and can cause extreme pain, joint swelling, warmth, and redness. About half of gout cases affect the big toe joint (metatarsophalangeal joint), while the remaining cases typically affect other joints in the foot as well as the knee, elbow, wrist, and fingertips.

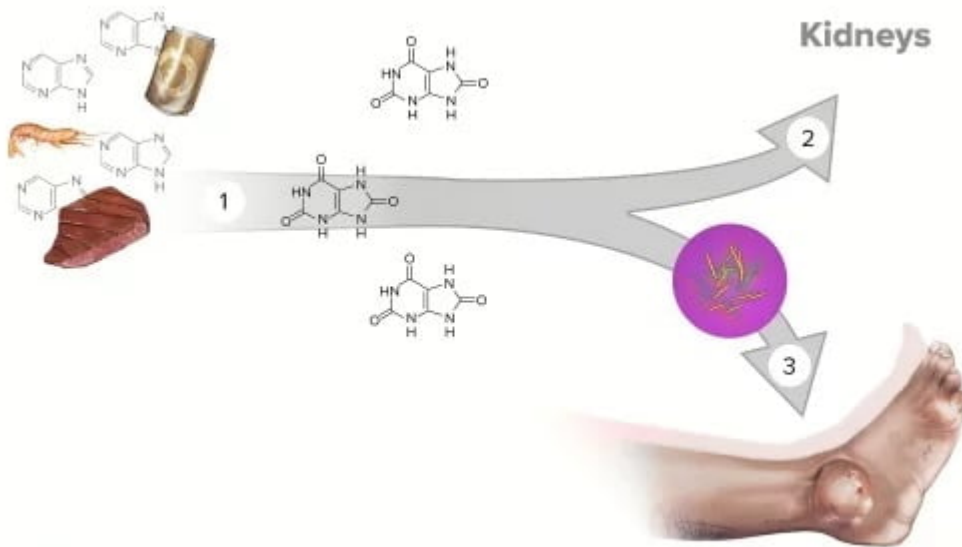
Though an episode of gout can be triggered due to various reasons, the symptoms can occur suddenly without any signal or warning. It often flares up in the middle of the night. It can prolong for a few days or weeks and the pain is severe in the first two days.

Gout is characterized by acute, painful swelling in the joints from uric acid buildup. Common areas include the foot and big toe.

Gout has been nicknamed as the “King’s disease” or “Rich man’s disease” because it was believed that consumption of meat and alcohol can trigger and flare-up gout. Despite its reputation, gout can affect anyone: the estimated number of Americans who have gout ranges from 3 to 6 million. Another common term for gout is “gouty arthritis.”

Experts aren’t fully aware of the fact why people get gout while others stay unaffected. But the risk factors, diagnosis and treatment for gout are well established.

What is Gout?



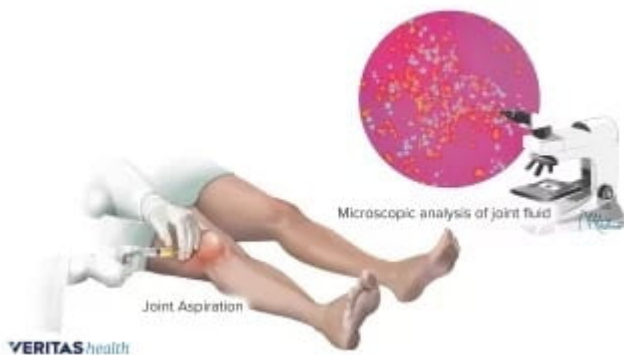
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1. Gout is the result of built-up uric acid crystals or monosodium urate crystals in a joint. These needle-like crystals are microscopic and collect in the soft tissues of the joint. This results into excruciating pain, swelling warmth and redness.
2. Consuming purines leads to a buildup of uric acid. This is normally filtered through the kidneys.
3. When too much uric acid is built up in the joints it leads to gout.
4. The build-up of uric acid crystals begins with purines, a chemical compound found in many foods.
5. When the body metabolizes purines, it produces a substance called uric acid, which is delivered to the bloodstream. The uric acid is then filtered out by the kidneys and excreted via urine (70%) or stool (30%).
6. Too much uric acid in the bloodstream is called hyperuricemia. In few cases, excess of uric acid leads to the formation of crystals that get collected in the joints resulting in gout.
7. An inability to adequately process and excrete uric acid accounts for an estimated 80 to 90% of gout cases.

8. Left untreated, a gout episode will usually resolve itself within a few days or weeks.
9. Chronic gout is when there are repeated instances of gout. This can damage a joint over time on permanent basis. It can lead to decreased range of motion and other issues. For this reason, it is important to diagnose, treat and prevent gout as early as possible.

Read on as we will also talk about the best **Uric Acid Gout Treatment in India**.

Gout Symptoms



Different types of arthritis in the early stages occurs gradually and the person might experience mild pain only occasionally. But gout, strikes suddenly, swiftly, severely without any kind of warning. In fact, gout pain can be so severe that some people assume a more serious medical problem is at play, delaying an accurate diagnosis.

Typical gout symptoms are

1. Pain

Extreme pain in the affected joint is the most common symptom. Gout sufferers have found the pain so severe that they describe it as someone constantly stabbing with tiny, hot knives.

2. Rapid pain

In case of gout, acute pain is suddenly experienced without a

warning. It takes few hours to become severe. In some rare cases the pain appears gradually. No doubt it is uncomfortable, if not possible for the individual to put weight on an affected foot or knee. **Foot and knee gout treatment** is possible.

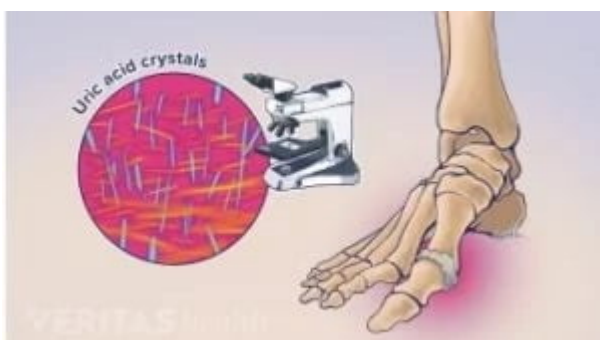
3. Interrupted sleep

It is not uncommon to hear a gout sufferer recount how a gout flare-up struck in the middle of the night, waking the person from a sound sleep. Most often the affected joint is the big toe, and it causes severe pain where even a bed sheet resting on it is unbearable.

Since body temperature drops in the night gout episodes strike in the night while the patient is sleeping. This temperature drop catalyzes the formation of uric acid crystals in the joints. This explains why gout affects joints of the feet and fingers.

This region tends to have a lower temperature as compared to the rest of the body. Also, during sleep when joints are resting, some water in the synovial fluid of the joints gets reabsorbed in the body. While the uric acid stays in the joints. When the uric acid is highly concentrated in the joints it spurs the formation of uric acid crystals.

Gout Causes and Risk Factors



Since experts don't entirely contemplate why some people get gout while others stay unaffected, there are many causes and risk factors of gout that are recognized.

Drinking alcohol decreases the body's ability to flush out uric acid. Additionally, beer is made with brewer's yeast, which is high in purines.

1. Diet

The risk factor increases due to the frequent consumption of foods that are high in purines like meats, seafood, some vegetables and beans. Also, foods that contain fructose lead to gout.

2. Alcohol Use

Drinking alcohol decreases the body's ability to flush out uric acid. Beer is made from brewer's yeast and it is high in purines.

What Are Purines?

Purines are chemical compounds in food are known to cause gout.

▪ Gender

Men are more likely to have gout. Women are less likely to get gout, however, their risk of developing gout increases after menopause.

▪ Age

Most people have their first episode of gout between 30 to 50 years of age. The risk of gout continues as age adds up. It is estimated that nearly 12% of men aged between 70 to 79 years have had gout while less than 3% of men under the age of 50 have had it.

▪ Excess weight

Overweight people are at a greater risk of developing gout.

▪ Race

African American men are nearly twice as likely to report having had gout as Caucasian men, according to a study cited by the Centers for Disease Control and Prevention.

- **Family history**

Genetics plays a role, making some people's bodies more prone to accumulating uric acid and developing the uric acid crystals that lead to gout. More research needs to be done to understand why some people have several risk factors and never get gout while other people have few or no risk factors and do get gout.

- **Certain medications**

Medications

Taking certain medications can increase the risk of gout. Some of these medications include:

Diuretics, sometimes called "water pills".

Aspirin

People who have been prescribed with Cyclosporine, an immunosuppressant who have been diagnosed with rheumatoid arthritis or psoriasis, or anyone who have had an organ transplant.

Levodopa

Often used to treat Parkinson's disease

- **Chronic renal failure**

A person who has chronic renal failure no longer has fully functioning kidneys. Gout occurs when the kidney is unable to properly flush out uric acid.

- **Lead exposure**

People who are exposed to lead in the environment have a

higher incidence of gout. In olden days people drank from lead crystal glassware thus, they got exposed to lead and were affected by gout.

1. Other reasons

Trigger events like injury, surgery or medical therapy can cause gout.

Some events can trigger a change in body chemistry and can flare up gout though not limited to trauma, infection, psoriasis, and initiation of chemotherapy. Stopping or starting allopurinol, which is used to treat gout, can also bring on gout symptoms.

It is interesting to note here that many people who suffer from an episode of gout might never have symptoms again or at least not for many years. People who suffer from gout symptoms might notice the episodes get severe and longer.

The precursor of gout that is hyperuricemia has to be addressed to prevent the damage from both in the long term.

Gout Diagnosis

All About Pseudo-Gout

Learn about what causes pseudo-gout, symptoms of pseudo-gout, and how to treat it. [Read More](#)

• Physical Exam

The doctor will have to examine patient's affected joint, pain points, range of motion and the swelling. He/she will also examine if there is any white or yellowish bump under the skin. These are uric acid crystals that have been gathered called as tophi.

These collections called as tophi are a strong indicator that a person suffers from chronic gout.

▪ **Patient interview**

The doctor will usually ask the patient about family history and also ask to describe the onset, pattern of the patient's symptoms.

▪ **Joint Fluid Analysis**

The most reliable way to diagnose gout is to examine the joint fluid under a microscope and look for uric acid crystals. To obtain a joint fluid sample, a doctor will use a needle and syringe to draw a fluid from the affected joint. If uric acid crystals are detected in the fluid sample, its confirmed that the patient suffers from gout.

A small percentage of people have gout but do not have uric acid crystals in the joint fluid during analysis. For these people some more tests should be done to exclude other possibilities like septic arthritis (infectious arthritis).

▪ **Blood or Urine Test**

Doctor might test a blood or urine sample for uric acid levels. Extremely high uric acid levels are called as hyperuricemia, and it indicates that gout may be present. Though, it is also possible for the uric acid levels in the blood to return to normal, once gout attack strikes. Thus, if hyperuricemia is absent, it doesn't completely rule out a gout diagnosis.

▪ **Synovial Biopsy**

The doctor will arthroscopically remove a part of the membrane during a biopsy. This includes the affected joint called the synovial membrane. The synovial membrane can be tested and examined for uric acid crystals and signs of gout.

▪ **X-rays**

An X-ray of the joint may show the deposition of uric acid

crystals. However, X-rays can be normal even when gout is present. Most gout cases are diagnosed with a joint fluid analysis. An accurate diagnosis is important to long-term treatment and health.

- **Gout Treatment**

1. **Ways to deal with painful gout**

During an acute gout episode, a person's first priority will be to alleviate the immediate pain and other symptoms. Once that is done, steps should be taken to prevent future gout attacks.

Without treatment and prevention, gout can become chronic, leading to repeated episodes of intense gout pain and possibly permanent damage to the affected joint(s).

The immediate goals for treating a gout flare-up are to reduce intense pain, swelling, warmth, and redness. With proper treatment, gout pain and other symptoms can be under control within 24 hours and completely gone within a matter of few days.

- **Ice**

A soft cool compress applied to the affected joint can help relieve discomfort.

- **Avoid pressure**

Avoid contact with anything. Anything that touches the affected joint may cause a sharp increase in pain.

- **Rest**

It is usually painful to use the affected joint, and resting it will help alleviate pain, swelling, and other symptoms.

- **Elevation**

Elevate the affected limb to help reduce swelling. If the foot

is affected, sit down with the foot resting on a footstool or lie down with the foot propped up on a pillow.

▪ **Over-the-counter medication**

Over-the-counter anti-inflammatory medicines like ibuprofen and naproxen will be able to relieve the pain. Especially if pills are taken as soon as the patient feels the gout attack striking. The exact dosage depends well on the doctor. Its best to avoid aspirin, as it impairs the ability of kidney to filter out uric acid and this makes the gout symptoms worse.

▪ **Prescription pain relievers**

Sometimes over-the-counter medicines cannot relieve the pain, so prescription of painkillers like codeine, hydrocodone, oxycodone become necessary for short-term relief from acute pain.

▪ **Colchicine**

Colchicine is an effective prescription drug that is extremely effective when one needs to stop the acute gout attack. Any kind of gout pain, inflammation, swelling decreases when colchicine is taken within the initial 12 to 24 hours of the gout attack. The second, smaller dose should be consumed an hour or two later.

Colchicine should be taken only as directed. Quite a lot of people who take colchicine suffer from gastrointestinal side effects like diarrhea and vomiting.

▪ **Corticosteroids Injections**

A doctor may inject the inflamed joint with steroids to relieve the pain. This treatment is particularly useful for people with sensitivities to certain medications. When corticosteroid injections are taken repeatedly since it has side effects.

1. Surgery

Gout cannot be treated with surgery. But if it is not treated it leads to the development and buildup of tophi. Surgery is conducted to remove the tophi and it may be imperative. Gout is generally quite painful and the patient cannot ignore it. So, steps to treat it should be taken. When symptoms of gout attack become under control, a person can take further steps to lower the uric acid levels in the blood. These steps can prevent another attack.

▪ Gout Prevention

People who are susceptible to gout want to avoid a painful attack. There are several lifestyle and dietary changes that can reduce the risk of gout. When these changes don't prove to be adequate enough to prevent gout episodes, doctor will have to prescribe daily medicines.

1. Avoid or limit alcohol

Alcohol prevents the body's ability to excrete uric acid. But not all types of alcoholic drinks are the same. Beer and some red wines are especially high in purine content and should be avoided or should be limited. White wine is not that highly associated with gout. So, a glass or two cannot pose any problem for anyone who is prone to gout.

▪ Drink plenty of water

A good amount of water intake helps to keep kidneys healthy and helps to flush out uric acid. Experts recommend at least eight 8-ounce glasses of water per day.

▪ Lose weight or maintain a healthy weight

One has to maintain a healthy weight by dieting and exercising to reduce the risk of gout. However, people trying to lose weight should do so gradually, because dramatic weight loss can trigger a gout episode.

▪ **Balancing your purines**

Eat a healthy, low-purine diet. Those prone to gout prevent uric acid buildup in the bloodstream by avoiding foods that are high in purines.

Foods that have high amounts of purines are lentils, vegetables, meats, seafoods, and dried beans. Mostly vegetables, eggs, complex carbohydrates, plant-based proteins, low fat dairy foods, are low in purines. They might even lead to the decrease of uric acid production.

▪ **Prescription medication**

If gout attacks are becoming more frequent or severe, if gout has caused joint damage, or if tophi or kidney stones are present, a doctor may recommend regularly taking medications to lower the uric acid levels in your body. These medications are mostly allopurinol and probenecid. They are effective in preventing gout attacks but one should note that they don't treat gout attack once it begins.

When one starts and then stops allopurinol use it is known to trigger gout attacks. Changes in the dosage should never be made without doctor's consultation.

Certain foods, such as meats and shellfish for example shrimp and oysters have high amount of purine content as compared to others. As we know by now that when one consumes purines it leads to the production of uric acid so its always best that people prone to gout maintain low purine diet.

▪ **Gout Diet**

A low purine diet adheres to these guidelines:

1. Limit meat and seafood consumption

Experts believe that people with gout should limit their purine intake by eating not more than 4 to 6 ounce of meat,

sea food or poultry food per day. Plant based proteins like legumes and nuts should be a part of your meal and high protein diet should be avoided.

▪ **Consume low-fat dairy products**

One can decrease the uric acid levels by consuming low fat dairy products like skim milk and yogurt. Thus, decreasing their risk of gout attack.

According to expert advise 16 to 24 ounces of daily low fat dairy consumption is good. High fat dairy products cannot give that kind of protective effect.

▪ **Use of Vegetables**

Eating plant-based proteins, complex carbohydrates and vegetables is necessary. Replacing a few sea foods and meat with legume consumption (like fresh, canned or frozen, not dried) will be able to lessen the purine intake. Gout sufferers also will benefit from avoiding foods made with sugar and corn syrup.

Complex carbohydrates like whole grain products, fruits are better. A lot of people believe that eating cherries and consuming cherry juice can help to prevent gout but, there isn't any scientific evidence to this belief.

▪ **Avoid foods high in purines**

Foods with high amounts of purines should be avoided completely. These foods include:

Seafood like scallops and shellfish, sardines, mackerel, and anchovies.

Meats with organ meats or "sweetmeats" like brains, liver and beef kidney.

Meats like venison, fattier as compared to farm raised meats.

Low purine diet and taking preventive steps like drinking lot of water, avoiding alcohol and controlling your weight can help in preventing gout and other types of arthritis and heart issues.

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