

Gouty Arthritis One of the Most Common and Debilitating Forms of Arthritis

Gouty arthritis, commonly referred to as gout, is a serious, chronic and progressive inflammatory disease¹ that generally affects 1 to 4% of adults²⁻⁵. In the UK, an estimated 1.4% of the population suffers from gouty arthritis⁴, while in the US 3.9% of the population has the condition⁵. The prevalence of gouty arthritis – the most common form of inflammatory arthritis in adults – is comparatively higher than that of rheumatoid arthritis, which is estimated to affect 0.5 to 1% of adults⁶.

Inflammation: the root cause of gouty arthritis pain

Gouty arthritis attacks, or flares, occur when the body has a strong inflammatory response to uric acid crystals forming in a joint. This intense inflammatory response is the underlying cause of the rapid and unpredictable onset of severe pain, redness and swelling in joints, such as the big toe, associated with gouty arthritis attacks⁷⁻⁹. The condition may have debilitating consequences such as disability and impaired quality of life^{1,7,10}.

Research shows that 90% of patients with elevated levels of uric acid (hyperuricemia) never experience an attack¹¹. Conversely, some patients can experience a gouty arthritis attack without elevated uric acid¹². Yet it is still commonly believed that gouty arthritis attacks can be prevented by lowering uric acid alone¹³.

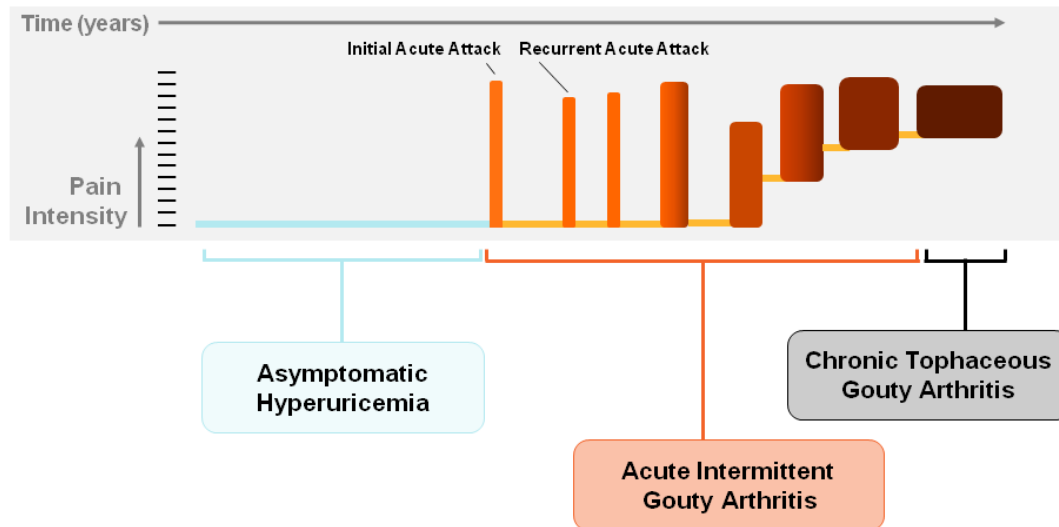
The progression of gouty arthritis

The progression of gouty arthritis from symptom-free hyperuricemia to advanced-stage gouty arthritis varies from person to person. The main disease stages are shown in Figure 1 and include:

- *Asymptomatic hyperuricemia* is a term sometimes used synonymously with “gout,” which is incorrect as not many people with hyperuricemia develop gout¹⁴. Asymptomatic hyperuricemia is defined by uric acid levels in the blood greater than 6.8 milligrams/deciliter (mg/dL), and is quite common¹⁵.
- *Acute intermittent gouty arthritis* is the stage of the disease when attacks of excruciating pain and swelling occur in the joints and surrounding tissues^{15,16}. Attacks may resolve in as few as three days or as long as several weeks, but they are likely to recur.⁷ Over time, gouty arthritis attacks may become more painful, more frequent, last longer and may involve multiple joints, including those in the upper limbs⁷. Between painful gouty arthritis attacks, there are symptom-free intercritical periods in which joints function normally, but urate crystals continue to accumulate and low-grade inflammation persists^{1,7}. This inflammation can eventually lead to irreversible structural damage¹.
- *Chronic tophaceous gouty arthritis* occurs when persistent inflammation causes bone erosion that results in chronically sore, stiff and swollen joints over the long term⁷. Other effects can include joint abnormalities such as cartilage destruction and joint space narrowing⁷. As urate crystals continue to deposit in the joints, they can lead to large deformative lumps called tophi^{1,7}.

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Figure 1. The stages of gouty arthritis



Mandell BF. *Cleve Clin J Med.* 2008;75(suppl 5):S5-8. Schumacher HR. *Cleve Clin J Med.* 2008;75(suppl 5):S2-4. Terkeltaub R, Edwards NL. *Gout: Diagnosis and Management of Gouty Arthritis and Hyperuricemia.* New York: Professional Communications; 2010.

The complexities of gouty arthritis management

Genetics play a role in the development of gouty arthritis, and the risk of developing the disease also increases with age^{17,18}. Gouty arthritis is more prevalent in men^{7,10}. In people under the age of 65, men are four times more likely to have gouty arthritis than women¹⁹. Women, however, are increasingly susceptible to developing the condition after menopause because of hormonal changes⁷.

Nearly 90% of gouty arthritis patients in the EU and US suffer from at least one coexisting disease, such as high blood pressure (hypertension), diabetes, metabolic syndrome and chronic kidney disease²⁰. A portion of these patients may be unable to take standard anti-inflammatory therapy such as non-steroidal anti-inflammatory drugs (NSAIDs), colchicine and/or steroids because they may be inadequate or inappropriate^{15,21,22}. This underscores the clear need for new treatment strategies for gouty arthritis.

Impact on disease burden and quality of life

Gouty arthritis impacts patients' health-related quality of life. Factors that affect quality of life include frequency of gouty arthritis attacks, number of affected joints, frequency of pain between attacks, coexisting medical problems and/or treatment failure²³⁻²⁶.

People with gouty arthritis also experience significantly decreased work productivity²⁴. A US retrospective study analyzed two comparison cohorts (1,171 employees with gouty arthritis and 247,867 employees without the condition)²⁴. The study found that employees with gouty arthritis took nearly twice as much sick leave (6.3 days vs. 3.6 days [$p < 0.0001$]) and nearly twice as much short-term disability (6.2 days vs. 3.2 days [$p = 0.0003$]) than employees without gouty arthritis²⁴.

* Selected from the Human Capital Management Services Research Reference Database (HCMS RRDb)

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CH-4002 Basel, Switzerland
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ILARPR033-06/12