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Gout, a form of arthritis, is no longer limited to the well-to-do

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Famous gout sufferers include, clockwise from top left, Thomas Jefferson, Henry VIII, Ben Franklin and Isaac Newton.

Gout, wrote the British poet and physician Richard Blackmore in 1726, is "the grievous Calamity of the Great, the Rich and the most Easy in their Circumstances." The ailment was so uniquely identified with the upper crust - who else could gobble roasts, organ meats and wild game daily, washing them down with large boozy draughts? - that contemporary paintings signaled a man's high station by showing him lying on a couch, his painful and bandaged feet raised on a stool.

In contemporary America, however, you don't have to be high and mighty to live high on the hog, and everyone from factory workers to white-collar carrel rats is prone to gout. The prevalence of the disease has roughly tripled since the late 1970s, according to recent surveys, with about 8 million Americans now suffering gout. And an increasing percentage of these patients are women, which also goes against the stereotype.

The rise of gout is due to a number of lifestyle changes. First, we are awfully "easy in our circumstances," in the sense that most of us can afford cheap animal protein, alcohol and sweet drinks. Nearly a third of American adults are obese, a major risk

factor for gout, said Gary Curhan, a Harvard epidemiologist. His work with rheumatologist Hyon Choi has shown that daily consumption of two or more soft drinks containing high-fructose corn syrup is [a gout risk factor](#), though less of one than obesity in general.

Another cause, paradoxically, is increased life span. Some of the drugs that keep older Americans alive despite high blood pressure, kidney disease and other conditions - including niacin (Vitamin B3) and thiazide and loop diuretics such as hydrochlorthiazide and furosemide (Lasix) - also have been shown to raise bloodstream levels of uric acid. Too much uric acid can cause gout.

"The longer you're on diuretics and these other medications, the higher your levels of uric acid, and the greater the risk of gout," said Robert Terkeltaub, chief of rheumatology at the Veterans Administration Medical Center in San Diego.

Another factor may be that as gout cases have risen, the pharmaceutical industry has shown interest. While pitching new drugs on the market, these companies may have increased people's awareness of the disease and its symptoms, says Patience White, a George Washington University professor of medicine and vice president of the Arthritis Foundation.

'Big toe on fire'

In a sense, gout is two diseases. The first is hyperuricemia, the buildup of uric acid in the bloodstream, which happens when the body breaks down purines - DNA building blocks that are particularly high in certain meats, shellfish and beer. The level of uric acid in the bloodstream depends on how fast the purines are broken down and how fast the uric acid is flushed through our kidneys. These factors vary depending on our genetics as well as on other medications we may be taking and on conditions such as high blood pressure, diabetes and kidney disease.

When uric acid saturates certain tissues, it forms crystals, like sugar that won't entirely dissolve in a container of over-sweetened ice tea. Crystallization is temperature-dependent, which is why more than half the first episodes of gout occur in the metatarsophalangeal joint of the big toe. Our feet are 5 degrees colder than the rest of our body, and the big-toe joint is even colder because it protrudes. Pressure from walking may also make the joint more susceptible to urate crystal buildup, said Terkeltaub.

Gout crystals in the joints cause an immune response; this inflammation is called arthritis, and it's what makes gout hurt. If gout progresses, crystals will form everywhere from the toes and elbows to the fingers, wrists and ears, in chalky white lumps called tophi.

Not everyone who eats and drinks to excess becomes gouty; but pity's to those who do. Gout's roll call of misfortune includes some of the great carnivores of history: Charles Darwin, Thomas Jefferson, Isaac Newton and Henry VIII, who apparently celebrated beheadings with joints of beef.

A few years ago, paleoanthropologists took a tiny slice out of the notoriously gouty Holy Roman Emperor Charles V's little finger, which had been preserved at a Spanish monastery. [They found the finger loaded with spiky urate crystals](#), gathered in tophi

that had eaten away at his 16th-century bones. Poor Charles: His realm stretched from the Americas to the Indian Ocean, but he couldn't get on a horse.

In his 1726 book, Blackmore described gout sufferers as men with a "florid and robust complexion." That may explain why it's an occupational hazard of the gourmet food industry, according to John Fielding, 37, co-owner of Broad Branch Market, an upscale deli and grocery in the District.

"Pretty much every overweight chef I know has gout," said Fielding, whose first gout flare-up occurred when he was 30. "I had eaten a big tray of chicken liver pate and a bunch of beers," he said. "In the middle of the night I woke up with my left big toe on fire. The bedsheet felt like an iron blanket pressing on my foot."

Fielding's maternal grandfather had the disease, which can run in families. For all that, "it's definitely a disease associated with hedonism," said the bearded Fielding, who could be described as a muscular Falstaff - which is to say he conceals 40 pounds he wishes he didn't have in a big-boned frame.

"Hedonistic - that's you," said Fielding's business partner, Tracy Stannard.

But that description doesn't always apply. Some gout sufferers have normal builds. And while it is unusual to find the disease in pre-menopausal women - estrogen has a protective effect - it has become common among older women.

"You see more and more women over 50 with gout, and in the over-80 group, there may be more women than men - simply because women tend to live longer," said the Arthritis Foundation's White.

Drugs old and new

Jeraldene White, a 67-year-old retired federal worker living in Baltimore, developed gout in 2005 because of a kidney disorder that began as a result of the treatment of lupus. For three years, White's toes, fingers, wrists and knees swelled painfully as she sought relief.

In fact, gout treatments are almost as old as gout itself. One of them, a pain-relieving extract of the meadow crocus called colchicine, was so well known in the 18th century that (gouty) Ben Franklin wrote an entire treatise on it. But colchicine doesn't deal with the underlying problem, and White was allergic to the most common anti-uric-acid medicine, allopurinol. In 2006, however, she enrolled in a trial of a new drug called pegloticase (Krystexxa), which speeds the breakdown of uric acid.

Within six months of starting the treatments, the tophi on White's hands and legs had melted away, and she was able to resume a normal life. Pegloticase, however, is recommended only for 3 percent of gout sufferers. The drug is expensive, can cause side effects and doesn't always work. But it may be an answer for some who cannot use allopurinol or other oral drugs for uric-acid-clearance.

Since going off Pegloticase, White (no relation to Patience White) has maintained her uric acid at a healthy level through use of another new drug, febuxostat (Uloric).

Her Wheaton-based rheumatologist, Herbert Baraf, was amazed at the effects of pegloticase on White and a few other patients he enrolled in the trial. "Tophi typically take five to six years to go away. Hers took a few months," he said.

Another new product on the market is a version of colchicine called Colcrys. But it costs up to \$8 per pill, compared with about 6 cents for earlier versions, which are no longer available.

The price jump for colchicine is especially worrisome to uninsured patients with gout, according to Wayne Grody, a geneticist in Los Angeles.

The availability of new drugs - and the difficulty of dieting - have changed the prescriptions of gout doctors. "As a practical matter, diet is not an effective treatment unless it involves substantial weight loss," says Baraf. "We have a name for people who go on a diet to cure gout: They are called gout sufferers."

Baraf, a professor of medicine at George Washington University, tells his patients who have controlled uric acid levels through medication that, if they like to eat a particular food, they should eat it, as long as they abstain from alcohol. "You like crabs and your uric acid is under control? Eat crabs," he says. To be sure, he added, losing weight is good medicine for a variety of conditions, but "a low-purine diet is not essential to the treatment of gout."

When it comes to avoiding gout, though, Blackmore's words still ring true:

"Abstinence therefore in eating, Temperance in drinking strong Liquors, and proper Exercise are the great Preservatives against the Invasion of this Evil, as well as cutting off the continual Supplies of high and Voluptuous Nourishment."