

Managing gout

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Diet as adjunctive therapy.

Gout is a form of inflammatory arthritis, typically characterised by recurrent incidence of joints that are red, tender, hot and swollen. It is generally managed by drugs that either control inflammation during acute episodes or reduce serum uric acid levels in the longer term; however, dietary measures can also help reduce serum uric acid levels and risk of gout.

The European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR) recommend diet and lifestyle strategies as adjunctive measures for the management of gout.^{1,2}

Gout is often associated with common and serious comorbidities, such as obesity, cardiovascular disease (CVD), dyslipidemia, hypertension, hyperglycaemia and renal impairment. Dietary advice for specific patients therefore needs to include recommendations related to any comorbidities.^{1,2}

There is a general lack of specific evidence from prospective, blinded, randomised clinical intervention trials regarding dietary strategies for gout. The replication of hazardous lifestyle risk factors in a conventional clinical trial would potentially pose design and ethical difficulties.

The majority of evidence comes from epidemiological/observational studies, including the Health Professionals Follow-up Study, NHANES III, the Nurses Health Study, and the Shanghai Men's Health Study.³

GPs can offer patients several pieces of dietary advice for helping to manage gout.

Keep weight in check

While gout is far more common in people who are overweight, those patients should be advised to lose weight gradually. Rapid weight loss (more than 1 kg per week) can increase uric acid levels and actually trigger an attack of gout.³

An accredited practising dietitian (APD) can help patients design a healthy weight loss plan.

Limit alcohol

Observational studies have found that alcohol intake is positively associated with serum uric acid, risk of gout and recurrent gout attacks.^{1,3,4} Experimental studies show that beer, in particular, significantly raises serum uric acid levels.³

It is best to avoid alcohol completely during an acute attack of gout.

Eat regularly

Skipping meals or fasting will increase uric acid levels.³ Advise patients to eat moderate-sized meals regularly throughout the day.

Limit sugar-sweetened drinks

Large observational studies generally find a positive association between intake of sugar-sweetened drinks and fruit juice, serum uric acid levels and risk of gout.^{3,4}

Meta-analysis of controlled feeding studies shows that adding fructose to the diet raises serum uric acid.

Limit added sugars to a maximum amount of five teaspoons per day and avoid fructose-based sweeteners.

Limit purine-rich animal foods

Purines break down into uric acid. Most large observational studies show that intake of purine-rich meat and fish is correlated with risk of developing gout, as well as risk of recurrent attacks.^{1,3,4}

Advise patients to limit intake of meat, poultry and seafood to one moderate serve (eg palm-sized) per day, and avoid offal. It is prudent to avoid meat extracts (eg Bonox and Bovril), brewer's yeast and yeast extracts (eg Vegemite), as these are very rich in purines.

Note: there is no association between plant-based purines and gout risk.

At least 2–3 cups of low-fat dairy daily

Observational studies have found that higher intake of low-fat dairy products is associated with lower uric acid levels and reduced risk of gout.^{1,3,4}

Coffee in moderation

Observation studies find that higher coffee intake^{3,4} is associated with lower serum uric

acid levels and risk of gout. However, a large sudden increase may trigger an acute attack in a manner similar to xanthine oxidase inhibitor drugs. Coffee should be consumed regularly and in moderation.

Vitamin C supplement

Vitamin C supplements of 500 mg/day have been used experimentally to reduce serum uric acid.³ Observational studies have found that vitamin C intake over 500 mg/day is associated with lower risk of gout.

A serve of cherries

Limited evidence from small trials and observational studies suggest a lower uric acid level and risk of acute gout attacks with daily intake of 1–2 serves of cherries (one serve is 10–12 cherries).³

Keep active

People who exercise regularly are less likely to experience gout. Ensure that running shoes are supportive and fit well.

Drink plenty of water

High uric acid levels can also increase the risk of kidney stones. Adequate fluid intake is important to reduce risk of stone formation.

Related problems

People with high blood uric acid levels are also at greater risk of heart disease, insulin resistance and diabetes. Weight loss, healthy eating and being physically active all reduce the risks linked with these related health problems. 🍷

References

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