

All about gout and diet



UK Gout Society

What is gout?

Gout is a type of arthritis. It is caused by having too much of the chemical, uric acid, in your bloodstream. Uric acid is the waste product created when the body breaks down purines (a type of protein found in many foods and all of your cells). Increased levels of uric acid in your blood may occur if, for example, your kidneys cannot efficiently remove it, you have a rare genetic abnormality, or because your diet and lifestyle increase the amount of uric acid that you produce. If levels of uric acid are high for prolonged periods, needle-like crystals can start to form in your tissues, resulting in swollen, painful joints.

Your diet plays an important role in both causing gout and reducing the likelihood of suffering further painful attacks of gout. If you already suffer from gout, eating a diet that is rich in purines can result in a five-fold increase in gout attacks.

Are other illnesses associated with the development of gout?

Elevated uric acid is seen in many other conditions, and people who have gout may also have raised cholesterol, raised triglycerides (a type of fat in your blood), high blood pressure and poor glucose tolerance. This may make it more likely that you have (or will develop) type 2 diabetes, metabolic syndrome and kidney disease. In addition, approximately half of all gout sufferers are overweight.

Central obesity (carrying weight around your middle) also increases certain inflammatory substances in your blood. This can further exacerbate gout attacks, as well as putting you at risk of developing heart disease, diabetes and metabolic syndrome. For further information on gout and related illnesses, download: All About Gout and other health problems from www.ukgoutsociety.org

Can losing weight help my gout?

Losing weight alone can reduce blood uric acid levels, and the number of acute attacks suffered. Weight-loss will also help to reduce the stress on weight-bearing joints e.g. hips, knees, ankles and feet. However, it is important to avoid any type of crash dieting, as going without food for long periods and rapid loss of weight can increase uric acid levels and trigger painful gout attacks. A combination of balanced healthy eating and regular physical activity is the best way to lose weight safely and maintain a healthy weight.

Which foods should be avoided?

As uric acid is made in the body from the breakdown of purines that come from your diet, it is advisable to reduce the amounts of foods that you eat that are high purines.

High purine foods include: (avoid)

- **Offal** - liver and kidneys, heart and sweetbreads
- **Game** - pheasant, rabbit, venison
- **Oily fish** - anchovies, herring, mackerel, sardines, sprats, whitebait, trout
- **Seafood** - especially mussels, crab, shrimps and other shellfish, fish roe, caviar
- **Meat and Yeast Extracts** - Marmite, Bovril, commercial gravy as well as beer

Moderate purine foods (eat in moderation)

- **Meat** - beef, lamb chicken, pork
- **Poultry** - chicken and duck
- **Dried peas, beans and legumes** - baked beans, kidney beans, soya beans and peas etc.
- **Mushrooms and mycoprotein** (Quorn™)
- **Some vegetables** - asparagus, cauliflower, spinach
- **Wholegrains** - bran, oatbran, wholemeal bread

Low purine foods

- **Dairy** - milk, cheese, yoghurt, butter
- **Eggs**
- **Bread and cereals** - (except wholegrain)
- **Pasta and noodles**
- **Fruit and vegetables** (see moderate purine list)

How much protein do you need?

Generally you need about 1g of protein per kg of body weight (70kg man only requires 70g of protein daily), unless you on a protein restricted diet e.g., some people with kidney disease may need to restrict their intake.

Here are some examples of protein content of food:

- 100g (3.5oz) chicken breast contains 22g protein
- 100g cod fillet contains 21g protein
- Large egg contains 6g
- 30g (1oz) hard cheese contains 8g protein
- 30g cottage cheese contains 14g protein
- 30g almonds contain 5g protein

Protein is very important part of your diet, it used for growth and repair, as well as an energy source. Not only that, but eating sufficient protein improves satiety (how full you feel) as well as blood sugar control.

However, as its important to use high purine/moderate protein foods with caution, then you are best to combine both animal and vegetarian sources of protein. Studies have shown that vegetarian diets that are high in purines (e.g. from lentils etc.) are much less likely to lead to gout.

In addition, red meat is a very good source of iron and is easily absorbed by the body. Other foods such as eggs and pulses contain iron, but in a form that the body finds hard to absorb. However, the absorption of iron can be improved if you also eat vitamin C - rich foods in the same meal e.g., add green and red peppers to scrambled eggs.

Some people find that certain foods such as strawberries, oranges, tomatoes and nuts will trigger their gout even though they are not high in purines. Although there is no clear evidence to suggest why this happens, it is probably best to avoid them if you have had this experience. One theory is the high fructose content contained in certain foods; fructose leads to hyperuricaemia because uric acid is a by-product of fructose metabolism. Less ripe fruit tends to contain less fructose.

Diet

Are there any foods that are good for gout?

Studies have shown that men whose diet is higher in vitamin C are less likely to develop gout. Also, taking additional vitamin C as a dietary supplement (500 to 1500mg/day) can reduce blood uric acid levels. This is achieved by helping to remove uric acid from the body via the kidneys. If you're considering supplementing your diet, always discuss this with your doctor as vitamin C can (rarely) interact with prescribed medications. High doses of vitamin C can also cause loose stools in some people.

Sour cherries or sour cherry juice have been used as a natural remedy for gout - and scientific research has shown that a certain type of cherry can reduce blood uric acid levels as well as reduce the inflammation that occurs with gout. This may be because cherries contain substances called flavonoids, which may reduce the activity of xanthine oxidase (see our leaflet 'All About Gout & Treatments').

Eating healthily is key

Eating a balanced diet is important for everyone. A healthy diet helps to control weight and provides all the necessary nutrients needed for maintaining good health. A variety of foods from the four main food groups should be eaten every day, this means:

- **Plenty of fruit and vegetables** – it's very important to achieve at least 5-a-day, as fruit and vegetables provide fibre, vitamins, minerals and phytonutrients essential for good health
- **Plenty of bread, other cereals and potatoes** – try to eat some whole grains, and use the skin on potatoes to ensure you get the vitamins, mineral and fibre you need
- **Moderate amounts of meat, fish and alternatives** – avoid eating large portions – beware restaurants often serve 8oz of meat for a main
- **Moderate amounts of dairy products** – the recommended amount is three portions of dairy products daily e.g. 200 ml glass of milk, a pot of yoghurt and a 30 g (matchbox-sized) piece of hard cheese
- **Reduce or eliminate highly processed foods and drinks** (see below)

Beware sweetened foods and beverages

Foods and drinks sweetened with fructose (often seen labelled as glucose-fructose syrup or corn syrup), as well as sweetened soft drinks, increase the risk of developing gout, as well as the number of gout attacks.

Sweetened soft drinks, and many commercial fruit juices (especially those from concentrate), are a poor substitute for fruit, as they do not contain any fibre, and are effectively 'empty-calories'. Fibre helps reduce the absorption of fructose.

Also be careful buying jams and sweetened condiments. Many manufacturers are now using glucose-fructose syrup (also known as high fructose corn syrup), as it is cheaper than cane or beet sugar.

Diets that are high in refined (easily digested) carbohydrates for example, white bread, white pasta, white rice, biscuits and cakes, also increase the risk of developing type 2 diabetes, and are linked to obesity

Therefore, try to avoid sweetened soft drinks, and reduce the amount of sugar in your diet other than fresh fruit.

Can I drink alcohol?

Drinking alcohol can increase your risk of developing gout and can bring on a sudden attack if you are already a gout sufferer. Alcohol can raise the level of uric acid in the blood in a number of ways and so trigger a gout attack. Many beers contain large quantities of purines from the fermenting process and alcohol stimulates the production of uric acid by the liver. More importantly, however, alcohol is converted in the body to lactic acid which interferes with the removal of uric acid from the body by the kidneys.

While it is certainly possible for people with gout to remain well without becoming teetotal, reduction in alcohol consumption is very important particularly if you are drinking more than the recommended healthy limit of 14 units per week for men and women.

1 unit of alcohol is provided by:

- ½ pint of standard strength (3-4% alcohol by volume) beer, lager or cider
- 125ml glass of wine (11%, 100ml glass of stronger wine)
- Single measure of spirits (25ml)
- Single measure of sherry or fortified wine (50ml)

Are some types of alcohol better than others?

A study has shown that the risk of developing gout is greater in even moderate regular beer drinkers than in those who drink equivalent amounts of alcohol in the form of spirits or wine. Gout was two and a half times more frequent in men who drink two bottles of beer a day while two glasses of wine daily was not associated with an increased risk of developing gout.

What about reduced alcohol beer?

We are not aware of any specific studies with low alcohol beers but it seems probable that they are less likely to cause gout.

Is there a link between gout and binge drinking?

Some people say that their gout attacks follow quickly after a heavy drinking session. Indeed, it is well established that binge drinking may trigger attacks in people who suffer with gout, even when they are taking medicines to prevent them.

Should I drink lots of water?

Yes, drinking fluids reduces the likelihood of crystals forming in the kidneys. As a general rule, drinking 8 large glasses of fluids a day (1.5 litres) is recommended. All drinks, except alcohol, count towards your fluid intake, including caffeine-containing drinks such as tea and coffee. Caffeine can act as a mild diuretic, which means it causes you to pass urine more often. However, regular tea and coffee drinkers develop a natural tolerance to caffeine and will only experience mild dehydration if they consume more than their usual amount. Caffeine itself may have no direct influence on the risk of developing gout, as research has shown that coffee intake, but not tea, may in some people be associated with slightly lower blood levels of uric acid than those drinking the same volumes of tea.

For further information and other useful resources:

1. UK Gout Society. www.ukgoutsociety.org
Email: info@ukgoutsociety.org



UK Gout Society