

All about gout and diet

Gout is a type of arthritis. It results from an excess of uric acid (the waste product formed from the breakdown of food and the body's cells) in the blood, which if present for long enough, can form into needle-like crystals which can inflame your joints and cause severe pain and swelling. Your diet plays an important role in both causing gout and in reducing the likelihood of suffering further painful attacks.

Can losing weight help my gout?

If you are overweight, gradual loss of weight will help you reduce the level of uric acid in your blood and reduce the stress on weight-bearing joints e.g. hips, knees, ankles, 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 your weight at an optimum. For further information on eating healthily, visit the British Nutrition Foundation's website www.nutrition.org.uk

Which foods should be avoided?

In principle, you should try to reduce your intake of foods which are known to have a high purine content. Uric acid is formed from purines which are found in many foods.

High purine foods include:

- Meat – particularly red meat and offal, such as liver and kidneys heart and sweetbreads
- Game – for example, pheasant, rabbit, venison
- Seafood – especially mussels, crab, shrimps and other shellfish, anchovies, herring, mackerel, sardines, sprats, whitebait trout, fish roe, caviar
- Yeast containing foods and beverages such as Marmite and beer.

Mushrooms and fungal proteins such as mycoprotein (Quorn); as well as a number of vegetables such as asparagus, cauliflower, spinach, lentils and soya beans are also rich in purines and should be eaten in moderation. There is medical evidence, however, that vegetarian diets high in purines are less likely to lead to gout than diets containing meat or shell fish.

Ideally, you should try to limit your consumption of these high purine foods and choose protein sources lower in purines such as milk, eggs and cheese as the basis for your meals (see table). This can be achieved without compromising your protein requirements. A 70kg man only requires 70g of protein daily, equivalent to a chicken breast, half a pint of milk and an egg. Most people eat much more protein than they require. And you don't have to cut out meat and fish entirely. Small amounts of these foods can be incorporated into the diet with benefit as they provide essential additional nutrients important for health.

For example, red meat is a very good source of iron which 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 facilitated by the presence of vitamin c in the same meal e.g., drinking a glass of orange juice with a meal of 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.

Are there any foods which are good for gout?

Scientific studies have confirmed the long-held belief that consumption of cherries can be beneficial and there is some recent research to suggest that the risk of developing gout is reduced in people eating a diet rich in dairy products.

Supplements of Vitamin C but not dietary Vitamin C alone have been shown to reduce the risk of developing gout in a study looking at men over a 20 year period. Those who had the highest vitamin C intake (both dietary and supplements) had the lowest risk of developing gout. Another study has demonstrated that Vitamin C 500mg daily lowers blood uric acid levels. This is achieved by helping to remove uric acid from the body via the kidneys.

In addition to ensuring that you have an adequate dietary intake of Vitamin C, present evidence suggests that it could be helpful to supplement your diet with Vitamin C tablets (500–1500mg/day). If you do consider this, please make sure you discuss it with your GP as some prescription medicines can interact adversely with Vitamin C and higher doses can cause stomach upsets and diarrhoea.

Ideally, your purine intake should be no more than 200mg daily. The table overleaf shows the purine levels of key foods in order to help you plan your diet.

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
- Plenty of bread, other cereals and potatoes
- Moderate amounts of meat, fish and alternatives
- Moderate amounts of milk and dairy products

Gout sufferers should try to avoid those foods with higher purine content, eat them infrequently or in small amounts and choose other foods from the group with a lower purine content to get a healthy balance. The 5-a-DAY vegetable message is important for everyone. You can choose a variety of fruit and vegetables but avoid those high in purines. Remember all types of fruit and vegetables count, including fresh, frozen, dried, canned and juices.

Diet

Foods highest in purines (150–1,000mg/100g)	Foods high in purines (50–150mg/100g)	Foods lowest in purines (0–50mg/100g)
Anchovies	Other shellfish – crab, shrimps	Milk
Sardines	Eel	Nuts
Mackerel	Meat – beef, lamb, pork, veal	Eggs
Sweetbreads and some meats (veal, young beef, lamb, pork)	Game – rabbit, venison, pheasant	Cheese
Brain	Poultry – chicken, duck, turkey	Pasta, noodles
Kidney	Other fish – trout, herring, whitebait	Bread and cereals except wholegrains (moderately high)
Liver	Meat soups	Cakes and biscuits
Heart	Legumes, beans, lentils, peas, soya	Chocolate
Meat extract, e.g. Oxo	Asparagus	Ice cream
Scallops	Cauliflower	Fats – butter, margarine
Mussels	Mushrooms	
Goose	Spinach	
Fish roe	Wheatgerm and bran	
Yeast extract, e.g. Marmite	Mycoprotein (Quorn)	

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. Additionally, the combination of heavy drinking and going without food for long periods can lead to the production of ketones, the chemicals that make your breath smell sour the morning after an alcoholic binge, and these have a similar effect on 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 21 units per week for men or 14 units per week for women.

1 unit of alcohol is provided by:

- 1/2 pint of standard strength (3–4% alcohol by volume) beer, lager or cider
- 125ml glass of wine (11%, 100ml glass of stronger wine)
- 1 pub-sized measure of spirits (25ml)
- One single measure of sherry or fortified wine (50ml)

Are some types of alcohol better than others?

A recent 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 8–10 glasses of fluids a day (1–1.5 litres) is recommended. All drinks, except alcohol, count towards your fluid intake, including caffeine containing drinks such as tea, coffee and cola. Caffeine can act as a mild diuretic, which causes you to pass urine more often, but only when taken in large amounts over a short period of time. 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. Drinking plenty of water or diet soft drinks can aid weight loss as it can make you feel full without providing energy. Diluted fruit juices and semi-skimmed and skimmed milks are a valuable source of nutrients. However, the consumption of sugar-sweetened soft drinks, fruit juices and colas as well as sweet fruits such as raisins, apples and oranges, should be restricted as they all contain significant amounts of the sugar, fructose, which raises the level of uric acid in the blood, It is important not to try and make up your fluid intake with beer or other alcoholic drinks!

Can you recommend any cookbooks / recipes?

Gout Hater's Cookbook I *Low Purine Diet Cookbook*. Jodi Schneider. ISBN 1888141743

Gout Hater's Cookbook II *Low Purine Diet Cookbook*. Jodi Schneider. ISBN 1888141808

Gout Hater's Cookbook III *Low Purine Diet Cookbook*. Jodi Schneider. ISBN 1888141875

Gout Hater's Cookbook IV *Low Purine Diet Cookbook*. Jodi Schneider. ISBN 1888141654

For further information:

1. UK Gout Society. Web: www.ukgoutsociety.org
Email: info@ukgoutsociety.org
2. Arthritis Research Campaign. Web: www.arc.org.uk
Email: info@arc.org.uk Tel: 0870 850 5000
3. British Nutrition Foundation. Web: www.nutrition.org.uk
(For advice on healthy eating generally)