

Diet and Arthritis

ARTHRITIS ACTION FACTSHEETS



The most important thing you can do if you have arthritis is to eat a well-balanced diet and keep to a healthy weight. Contrary to popular belief, there are no particular diets or types of food that will make arthritis better or worse.

Healthy Eating

Several different diets have been tested clinically for how they affect rheumatoid arthritis (RA), including the vegan diet, vegetarian diet, elemental diet, the exclusion diet, and the Mediterranean diet. No particular diet has been shown to help with RA, though the National Institute of Health and Care Excellence (NICE) guideline for rheumatoid arthritis stated that the Mediterranean diet could be an option. Evidence suggests that the Mediterranean diet can reduce the risks of cardiovascular diseases, such as strokes and heart attacks, which can affect people with RA.

A number of studies have shown that people with osteoarthritis (OA) may experience less cartilage damage when following a Mediterranean diet. In terms of nutrients, studies have found people with OA who had a diet which is high in total and saturated fats experienced damage in the cartilage, compared to those with a moderate or lower-fat diet. As there is no definite evidence that any particular diet can affect arthritis, eating a healthy and well-balanced diet is the most sensible approach. The latest guidance from Public Health England, called the Eatwell Guide, provides information about healthy eating in general.

Weight Management & Arthritis

The most important link between diet and OA is body weight. Being overweight increases the risk of OA and worsens the pain in many joints, especially in the knees, hips and feet. Every 5kg of weight gain confers to a 36% increased risk of knee OA. Being overweight can also increase the risk of developing gout. Losing 10% of your weight can significantly reduce the pain you feel, especially in the knees, and is one of the most important things you can do to help yourself.

For instance, if you weigh 100kg (15 stone 10 pounds), then losing just 10kg (22 pounds) can make a big difference to your pain and improve physical function. If you have rheumatoid and psoriatic arthritis, being overweight means that your arthritis is much less likely to respond to medicines and go into remission. People with rheumatoid and psoriatic arthritis also have a higher risk of cardiovascular disease, so keeping to a healthy weight is even more important.

Acidic Foods

Some people believe that eating so-called acidic foods, such as oranges, can make their arthritis worse. In fact, no food can change the acidity in our bodies and there is no evidence suggesting that eating acidic foods makes arthritis any worse, or that avoiding these foods can help treat arthritis. In fact, some of these foods are packed full for vitamin C and anti-oxidants, which can help to protect your joints!

Nightshade Family of Vegetables

Another popular belief is that foods from the nightshade family, such as tomatoes, potatoes and peppers, can make arthritis worse. There is no evidence that this is the case or that avoiding these foods can help treat your arthritis. If anything, these foods have high levels of antioxidants which may help to reduce the risk of arthritis progression, especially OA.

Food Allergies & Intolerance

The connection between food allergy or intolerance and arthritis is controversial. Research has shown that less than 5% of people with RA have definite sensitivity to certain foods, a percentage no different to the general population. Interestingly, non-steroidal anti-inflammatory drugs (NSAIDs) and alcohol can increase the 'permeability' of the gut, which might affect how sensitive you are to food. Provided you have a balanced diet, there is no harm in avoiding certain foods to see if this makes a difference to your arthritis, but make sure that you speak to your GP before trying this.

Gout & Diet

Gout is caused by too much uric acid in the blood. Only a small amount of uric acid comes from our diet, but can more often come from certain drugs, drinking too much alcohol, and being overweight. High uric acid can also sometimes be caused by genetic factors.

If you have gout, the most important thing you can do to help yourself is to keep to a healthy weight, reduce your alcohol intake - especially beer - and stay well-hydrated. Do not try to lose weight too quickly by fasting, using fad diets, or completely cutting out carbohydrates. Doing this can actually increase uric acid levels in the body and make gout worse. Drinking cherry extract and increasing your intake of low-fat dairy products such as skimmed milk may also help reduce uric acid levels and the risk of acute gout attacks.

Supplements

Many people with arthritis use dietary supplements to help reduce their painful symptoms, however there is not much evidence that they actually work. Omega-3 polyunsaturated fatty acids, which is found in some fish, may help people with inflammatory arthritis such as RA and psoriatic arthritis, but not in OA. There is no evidence that cod liver oil can reduce the symptoms of arthritis. Caution must be taken to not take cod liver oil in excess, especially in women who are pregnant or breastfeeding.

People with OA often take glucosamine sulphate or chondroitin tablets, which are made from shellfish. Studies have not shown convincing evidence that they help, and they are not recommended in current guidelines. Many people with arthritis have also tried rosehip and turmeric (curcumin). Trials of these supplements have often shown conflicting results, however some people with arthritis may find a small benefit.

People with arthritis may be at risk of Vitamin D deficiency. Vitamin D comes from sunlight, and is essential for bone and muscle health. Current guidelines from the Department of Health recommend that all adults should consider a Vitamin D supplement of 10 micrograms (400 IU) daily between October and the end of March, when there is not enough sunshine for your body to receive enough Vitamin D on its own. People at risk of Vitamin D deficiency (such as those with dark skin or in care homes) should consider a supplement all year round.

References

- Dyer J, Davison G, Marcora S & Mauger A (2016) Effect of a Mediterranean type diet on inflammatory and cartilage degradation biomarkers in patients with osteoarthritis. *J. Nutr Health Ageing*. Available at: <http://link.springer.com/article/10.1007/s12603-016-0806-y>. Accessed on 3/10/16
- Estruch R, Ros E et al. (2013) Primary Prevention of Cardiovascular Disease with a Mediterranean Diet. *N Engl J Med* 368:1279-1290
- Genel F et al (2020) Health effects of a low-inflammatory diet in adults with arthritis: a systematic review and meta-analysis. *J Nutri Sci* 9: e37
- Goff L. and Barasi M (1999) An assessment of the diets of people with rheumatoid arthritis. *Journal of Human Nutrition and Dietetics* 12: 93–101
- Hliddal B, Leeds A & Christensen R (2014) Osteoarthritis, obesity and weight loss: evidence, hypotheses and horizons – a scoping review. *Obes Rev* 15(7): 578–586
- Liu X, Eyles J et al (2018) Which supplements can I recommend to my osteoarthritis patients? *Rheumatology* 57(4):75-87.
- Rosato, V., Temple, N.J., La Vecchia, C. et al. *Eur J Nutr* (2017) Mediterranean diet and cardiovascular disease: a systematic review and meta-analysis of observational studies. *Eur J Clin Nutr* DOI: 10.1007/s00394-017-1582-0
- Veronese N, Stubbs B, Noale M, Solmi M, Luchini C, Maggi S. (2016) Adherence to a Mediterranean diet is associated with lower prevalence of osteoarthritis: Data from the osteoarthritis initiative. *Clin Nutr* 36(6):1609-1614
- Veronese N, La Tegola L, Crepaldi G, Maggi S, Rogoli D, Guglielmi G. (2018) The association between the Mediterranean diet and magnetic resonance parameters for knee osteoarthritis: data from the Osteoarthritis Initiative. *Clin Rheumatol* DOI: <https://doi.org/10.1007/s10067-018-4075-5>

Last reviewed: January, 2023