Diet and osteoarthritis

Arthritis is a medical condition affecting the joints. There are many forms of arthritis, some more painful and debilitating than others. They affect people of all ages. This Food Fact Sheet is about the role that diet has in managing the symptoms of one of the most common arthritic conditions, osteoarthritis.

What is osteoarthritis?
Osteoarthritis will affect most people in some way as they get older and is often referred to as ‘wear and tear’ or ‘degenerative’ arthritis. Osteoarthritis may run in families or can develop as a result of injury or from over-use such as in sport and manual jobs. Osteoarthritis commonly affects the large joints such as the knees and hips but frequently occurs in the hands, the base of the big toe and the spine. As a result of osteoarthritis the ‘cushion’ at the end of the joint, called cartilage, is worn down and changes the shape of the bone which eventually affects movement of the joint, ultimately causing deformity, functional disability and pain.

Treatment
Rheumatologists are experts in joint health. They work with a team of health professionals including nurses, physiotherapists, occupational therapists, pharmacists, podiatrists and dietitians. The rheumatology doctor will monitor the levels of damage to the joints on X-ray film and using questionnaires, to measure the level of pain and disability.

The results assist the doctor in making treatment decisions with the patient. Other members of the team will manage alternative forms of pain control, exercises to improve joint function, foot care and other lifestyle issues, including diet.

Below are a number of ways which may help you to ease the symptoms of osteoarthritis through your diet:

**Maintain a healthy weight**
The most important relationship between diet and arthritis is weight. Excess body weight is not good for joint health. If you are overweight or obese, then losing some weight will help to take the strain off your knees, hips, feet and lower back, and improve your overall physical health and mobility. Research has shown that when combined with regular exercise, weight loss will help to reduce the joint pain and stiffness associated with osteoarthritis, including osteoarthritis in the hands. The likelihood of developing other serious medical conditions such as diabetes, hypertension (high blood pressure), heart disease and some cancers is increased in people who are overweight or obese. Losing excess weight will also help to prevent or manage these conditions.

**Nutritional supplements**
At the present time there is little scientific evidence to support the use of additional supplements in the treatment of osteoarthritis symptoms. However, individual patients might obtain improvement in symptoms with some supplements at the recommended doses (see below).

**Glucosamine and chondroitin**
These are two of the most common supplements for osteoarthritis. Despite their popularity, the scientific evidence surrounding them is conflicting. Glucosamine is found naturally in the body and in the shells of lobster, crab and prawns from which it is extracted for use in supplements. Glucosamine cannot cure osteoarthritis but a number of studies have found that it can ease the pain and stiffness of osteoarthritis in some people.
There are no known serious side effects with glucosamine but if you have a shellfish allergy, ask your doctor or pharmacist whether it is safe to take or simply ask for glucosamine from vegetable sources. Glucosamine is sometimes taken in combination with chondroitin, which is found naturally in cartilage within the joint and is thought to give cartilage elasticity and to prevent it from breaking down. Chondroitin is available as a supplement, (chondroitin sulphate) but there is limited scientific evidence to prove that chondroitin, on its own or in combination with glucosamine, can help reduce joint pain in all people with osteoarthritis. In fact, the National Institute for Health and Clinical Excellence (NICE) does not recommend the prescription of chondroitin or glucosamine or any other supplement due to the lack of evidence of usefulness, but recognises that patients often choose to take them and some may experience some benefits.

**Alternative/complementary and herbal therapies**

A number of supplements are now available from chemists and ‘health-food’ shops aimed at the treatment of osteoarthritis and joint pain. Some common examples include avocado-soybean mix (ASU), Devil’s claw (Harpagophytum procumbens), Cetyl myristoleate (CMO), S-adenosylmethionine (SAMe) and extract of New Zealand green-lipped mussels.

These supplements can be expensive and again, there is little good evidence that they are able to ease the symptoms of osteoarthritis. More research on the long term safety and effectiveness of supplements in the treatment of osteoarthritis is needed before any recommendations can be made.

**Foods that might help**

Interest has grown in foods/food products that may help reduce the symptoms of osteoarthritis as they have a potential anti-inflammatory effect to help reduce pain. So far there is no evidence to support these theories, but as they are foods, they offer a safe alternative to other pharmalogical therapies. It is estimated that nearly half of osteoarthritis sufferers use non-prescribed alternatives including foods. Some of the most popular foods include green tea, pomegranate, ginger, turmeric and rosehip powder. Incorporating any of these foods into your usual diet may or may not be effective, however, as natural plant-based foods, they do no harm and can offer additional health benefits.

**Vitamin supplements**

A healthy diet and safe regular exposure to sunlight during the summer months should supply all the nutrients needed by the body. If your exposure to sunlight is limited or your diet is very restricted, you should consider taking a supplement. Always discuss the situation with a dietitian or your family doctor before starting a vitamin/mineral supplement as it might be unnecessary and may interfere with any medications you may be taking.

**Summary**

Combining regular exercise with healthy eating will assist weight loss and thus help to reduce joint pain, one of the main symptoms of osteoarthritis. The current scientific evidence does not support the use of supplements such as glucosamine and chondroitin in all patients. However, in some cases these products may ease the symptoms of osteoarthritis and do not appear to cause harmful side-effects.

A good quality multivitamin/mineral supplement will support your general health.

It is always sensible to discuss any change in diet or nutritional supplements with your rheumatologist and dietitian or family doctor.

**Further information:** Food Fact Sheets on other topics including Healthy Eating and Supplements are available at www.bda.uk.com/foodfacts

**Useful links:** www.nhs.uk/Livewell/healthy-eating www.arthritisresearchuk.org www.arthritiscare.org.uk