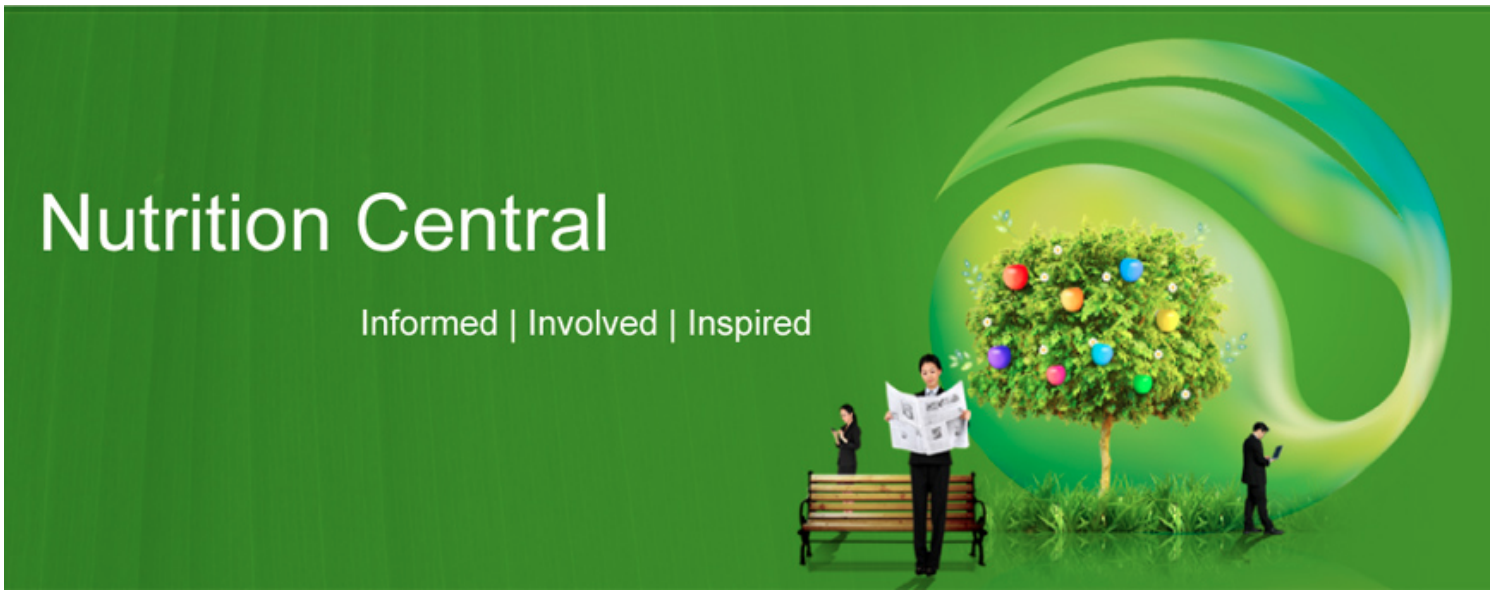
Institute *for* Optimum Nutrition
Promoting Nutrition *for* Optimum Health



By:
ION Archives
Issue: Spring
Year of publication: 1993

Arthritis starts with minor aches and pains. By the age of 60 nine in every ten people have it. For some it is living hell and can be life threatening. For all, arthritis means living with pain and stiffness. Yet arthritis is not an inevitable consequence of ageing. Arthritis can be prevented and the underlying causes can be eliminated. Patrick Holford explains how.

Last month I had a call from a client I hadn't seen in several years. "What you recommended sorted out my arthritis, but now the symptoms are beginning to return again" she told me. A special diet and some supplements, based on a new way of looking at arthritis, kept her pain-free for seven years. To understand the treatment you have to understand the cause- and to understand the cause you need to know the nature of the beast.

WHAT IS ARTHRITIS?

There are two major kinds of arthritis. Osteoarthritis, the most common kind, is a progressive, degenerative 'wear and tear' disease. Rheumatoid arthritis is less common and less understood. It affects younger people and seems to be associated with a faulty immune system, perhaps triggered by hereditary factors and infections as well as diet and lifestyle.

Osteoarthritis

About 80 percent of people over the age of 50 show osteoarthritis-like joint damage, a quarter of which experience pain. Under the age of 45 osteoarthritis is more common in men; over the age of 45 it's more common in women, probably due to reduced calcium absorption after the menopause. It starts as aches and pains, usually of the weight bearing joints such as the knees, hips and back, which then become swollen and inflexible. It is usually triggered by either 'wear and tear', i.e. bad posture plus an insufficient diet to maintain healthy joints, or a trauma such

as a strain, obesity, or another disease.
The major causes are improper diet and lifestyle, which, over the years can upset the body's metabolism and ability to keep joints healthy. The progression of osteoarthritis suggests that the body is trying to heal damaged tissue within the joint. The goals from a nutritional point of view are to support the body in rebuilding healthy joints and reduce the pain caused by inflammation.

Rheumatoid arthritis
There are an estimated half a million people in Britain with rheumatoid arthritis. Around 80 per cent of these are women. While the peak age is 30 to 50 many people develop rheumatoid arthritis as young as 25. Unlike osteoarthritis, this condition often affects the whole body, and usually both sides of the body, for example both wrists, rather than simply a weight bearing joint. It most often affects fingers, wrist, knees and ankles but can also affect other parts of the body such as heart tissue and muscles. The cause is more mysterious but points to immune system problems, either triggered by a viral or bacterial infection, or a genetic weakness.
Rheumatoid arthritis often starts and flares up when nutrition is under par, probably because nutrition is vital for immune strength. Most rheumatoid arthritis sufferers develop antibodies which attack normal components of the body, as if the immune system had gone haywire. This is why rheumatoid arthritis is often called an auto-immune disease.

CONVENTIONAL TREATMENTS DON'T WORK
Conventional treatments for arthritis treat the symptoms, not the cause. Aspirin, cortisone and NSAID drugs (non-steroidal anti- inflammatory drugs) all speed up the progression of arthritis and are not without side effects.
'Double blind trials have shown gamma linolenic
add to be as effective as non-steroidal drugs,
without the side effects."
While aspirin relieves pain and inflammation, the toxicity signs include tinnitus and gastric irritation. Symptoms of toxicity for NSAIDs include gastrointestinal upset, headaches and dizziness. Both aspirin and NSAIDs accelerate cartilage loss and lower blood vitamin C level , which is so vital for the formation of collagen, the intercellular glue that keeps joints healthy.

NEW THEORIES, NEW BREAKTHROUGHS
Most diseases are multi-factorial and arthritis is no exception. The likely factors that lead to the development of this painful condition are:
Poor lubrication of the joints
In between joints there is synovial fluid. Good nutrition is needed to make sure the synovial fluid stays fluid and lubricating. Cartilage and synovial fluid contain mucopolysaccharides.

Hormonal imbalance
Hormones control calcium balance in the body. If calcium balance is out of control bones and joints can become porous and subject to wear and tear, and calcium can be deposited in the wrong place resulting in arthritic 'spurs'. The fault is not so much calcium intake, but the loss of calcium balance in the body. A lack of exercise, excess tea, coffee, alcohol or chocolate, exposure to toxic metals like lead, excessive stress or underlying blood sugar or thyroid imbalances all upset calcium control. While calcium control can be worse after the menopause, probably due to the loss of oestrogen. Too much oestrogen also makes arthritis worse. It's all a

question of balance. Another hormone, insulin, stimulates the synthesis of mucopolysaccharides, from which cartilage is made. People with underactive thyroid glands are more like to suffer from arthritis.

Allergies and sensitivities

Almost all rheumatoid arthritics and many osteoarthritics have food and chemical allergies or sensitivities that make their symptoms flare up. The most common food allergies are to wheat and dairy produce. Chemical and environmental sensitivities include gas fumes and exhaust fumes. These are well worth avoiding strictly for one month to see whether they contribute to the problem.

Free radicals

In all inflamed joints, a battle is taking place with the body trying to deal with the damage. Free oxidising radicals, from fried food, smoking or just normal body processes, can accelerate joint damage. If the immune system isn't working properly, as in rheumatoid arthritis, it will produce free radicals. A low intake of anti-oxidant nutrients vitamin A, C, E and selenium, or zinc, copper or iron, which are involved in anti-oxidant enzymes, can make arthritis worse. Since copper and iron are zinc antagonists, an excess of these can also make the problem worse.

"Hidden anger, fear or worry often
accompanies the onset of arthritis."

Infections

Any infection, be it viral or bacterial, weakens the immune system which controls inflammation. But some viruses and bacteria particularly affect the joints and can lodge in joints and re-occur when immune defences are low. Building up your immune defences through optimum nutrition is the natural solution.

Bone strain and deformities

Any damage or strain, so often caused by faulty posture, increases the risk of developing arthritis. A yearly check up with an osteopath or chiropractor, plus regular exercise that helps to increase joint suppleness and strength is the best prevention. Once arthritis has set in special exercises help to reduce pain and stiffness.

State of mind

Research at the Arthritis and Rheumatism Foundation and at the University of Southern California Medical School has shown a link between arthritis and emotional stress. "Hidden anger, fear or worry often accompanies the beginning of arthritis" says Dr Austin from the University of Southern California. Dr Lamont-Havers found a very low incidence of rheumatoid arthritis among prisoners who expressed their hostile feelings openly.

Taking all these factors into account and eliminating possible risks, improving lifestyle and following an optimal diet and supplement programme for the individual, can achieve great results with arthritis. Pain and inflammation can be reduced, mobility can be increased, and, although harder, there is evidence that damaged joints can heal. These are the key breakthroughs in the nutritional approach to arthritis.

SUPPLEMENTARY BENEFIT

The healing effects of vitamins, minerals and amino acids on arthritis have been well researched. Dr William Kaufman pioneered the use of vitamin B3 as niacinamide (the kind that doesn't make you blush). He showed conclusively that large amounts - up to 4 grams (4.000mg) a day, increased joint mobility. However,

such levels can be toxic and, unless under medical supervision levels above 1,000mg should not be used. For reasons as yet unexplained certain types of 'sustained release' niacin may have increased toxicity and are best avoided.
Vitamin B5, also known as pantothenic acid from the Greek word 'pantos' meaning everywhere (because it is so widely available in food) has helped may arthritis sufferers. Pantothenic acid is needed for cortisone production, which is one way the body reduces pain and inflammation. Gout is caused by a build up of uric acid. Pantothenic acid helps prevent this by converting uric acid to urea and ammonia. Vitamin C also helps to reduce high uric acid levels.
Vitamin C is vital for many reasons. Firstly, proper bone and cartilage formation depends on collagen as a building material, which is only synthesised in the presence of vitamin C. It is also necessary for the immune system, combats free radicals, viruses and bacteria. Five grams a day is a sensible intake for any arthritis sufferer.
Amino acids are the building blocks of protein. Two in particular, methionine and cystine, may have an important role to play in restoring joint health. Methionine and its 'cousin' S adenosyl methionine (SAM) are important for cartilage formation. Double blind trials have shown SAM to be better than NSAIDs.DLPA (dl-phenylalanine) is another amino acid that may help arthritis. It is well proven as a natural pain killer. Unlike aspirin it takes a few days to have an effect, however does not the undesirable side effects. The level needed for pain control is up to 750mg three times a day, ideally 30 minute before a meal as other amino acids in protein render it less well absorbed.

OILING THE JOINTS

Essential fatty acids. found in certain nuts, seeds and their oils, have a critical role to play in arthritis and inflammation. One kind of essential fatty acid, linoleic acid which is rich in sesame, sunflower and safflower oil, is the precursor for 'prostaglandin series I' a hormone- like substance that is strongly anti-inflammatory. Supplementing gamma-linolenic acid (GLA) in the form of evening primrose oil has been demonstrated to be an equally effective anti-inflammatory agent as NSAID drugs, without the side-effects. The amount needed to have such an effect is 150 to 300mg of GLA per day. Since evening primrose oil is almost 10% GLA that is equivalent to 1,500mg to 3,000mg a day of evening primrose oil. Borage oil is also rich in GLA.
Alpha linolenic acid and its derivatives, which are rich in fish oil, has not been demonstrated to have such anti-inflammatory properties.

ELEMENTAL HEALTH

Bones are made out of calcium, magnesium and phosphorus. While phosphorus is abundant in most people's diets. calcium and magnesium are often deficient. Dairy produce, although a good source of calcium, is not a good source of magnesium. Nuts, seeds and root vegetables are good sources of both. Vitamin D is also needed to help calcium to be used properly by the body. This is either made in the skin in the presence of sunlight, or is present in meat, fish, eggs and milk. If you don't eat these foods often it is best to supplement 400ius of vitamin D each day.
Anti-oxidant nutrients play an important role in inflammation. At the centre of anti-oxidant enzyme systems is one key enzyme, super oxide dismutase, or SOD for short. One type of SOD depends on zinc and copper, another on iron, and another on manganese. Manganese deficiency results in cartilage problems in joints, and either an excess or deficiency of iron and copper can make joint pain worse.
Copper is absorbed through the skin, which is probably why some people seem to benefit from copper bracelets. But for others, it could make their arthritis worse. Both copper and iron compete with zinc, so a lack of zinc and an excess of copper

would aggravate inflammation. Research at the University of Washington found that supplementing the diets of rheumatoid arthritics with 66mg zinc for 12 weeks significantly reduced morning stiffness and improved health.

SPECIAL DIETS & NATURAL THERAPY

Numerous weird and wonderful diets have claimed to cure arthritis from Dr Dong's arthritis diet to the 'grape cure'. But do they work? Certain foods have been found to consistently help arthritis, while others are best avoided

Cherries and Juice for gout (blueberries and hawthorn berries) contain anthocyanidins and proanthocyanidins. These flavanoid molecules are what gives these berries a deep red-blue colour. They also help to rebuild collagen and cartilage

The deadly nightshade family which includes tomatoes, potatoes, aubergine, peppers and tobacco contain solanum alkaloids which may inhibit normal collagen repair or promote inflammation. This is as yet unproven and, at least in the case of tomatoes, would be a shame as they are a good source of beta-carotene and vitamin C. 'However, a trial avoidance may be wise for a chronic arthritis sufferer

The yucca plant and the herb Devil's Claw may be rich sources of saponins, which bind to oestrogen receptors. For people with excessive oestrogen levels, or hormonally related arthritis, perhaps these could help, but the evidence is far from clear. Some trials have shown good results and others not. What's more, many women have a lack of oestrogen after the menopause so a high saponin intake could theoretically be bad news.

Green lipped muscle as a cure for arthritis seems like hocus-pocus medicine. But the green lipped muscle contains high levels of protein, vitamins and minerals, and a special ingredient called 'mucopolysaccharides' which is a natural joint lubricant and component of all connective tissue Shark cartilage, a recent addition to health food shop shelves, may have a similar effect. Proper controlled studies have shown benefit for 76 per cent of rheumatoid arthritics and 45 percent of osteoarthritics from supplementing green lipped mussel extract. While most people make enough mucopolysaccharides there is evidence that arthritics don't make enough. Supplementing extra might help. The recommended dose is 1,000mg a day for twenty-five days then 250mg a day. Some people experience a flare up of symptoms within the first two weeks, before their condition improves Obviously, this is not suitable for people with a seafood allergy

Extracted from Patrick Holford's book SAY NO TO ARTHRITIS

Keywords:
HEALTH CONDITIONS