



## Conditions helped

Chiropractic is renowned for its success in treating low back pain but chiropractors can help people to manage a range of other conditions. This does not necessarily mean that joint manipulation is used, but that the package of care given by the chiropractor provides relief. Our chiropractors may use a number of different procedures in the course of patient care such as heat, cold, "dry needling" (acupuncture), postural support, exercise programmes and dietary management as well as providing advice on ergonomic factors at work and adjusting lifestyles to get the most lasting benefits from care.

## Arthritis

### Do we have to learn to live with it?

"What do you expect at your age – it's arthritis – you'll just have to learn to live with it".

If we haven't heard this yet, in all probability at some stage in our lives we'll be told it! But can it really be true?

It is true that most of us will develop the wear-and-tear form of arthritis, called osteoarthritis (OA) or degenerative joint disease (DJD). Osteoarthritis is a wearing down of the joint cartilage surfaces and of the bone next to it. It frequently causes no pain at all - all that you notice is a bit of stiffness, especially on waking in the morning or after periods of inactivity.

People are often told that they have arthritis but when they are examined they have a simple joint malfunction and hardly any wear and tear at all. Even if osteoarthritis is found to be present there is much that can be done to limit the symptoms, stop it from getting worse and even prevent it from developing in the first place.

Osteoarthritis is the commonest form of arthritis. It is a major cause of chronic disability and in the UK over 8 million people are affected by it. It is quite different from rheumatoid arthritis, which is an autoimmune disease with joint inflammation as its main feature. People mistakenly believe that because osteoarthritis rarely occurs in young people it develops from the wear and tear that accompanies the ageing

process. However it is likely that it is a process that starts to develop gradually at the moment we stop growing and that many of the things we do in our 20s, 30s and 40s will dictate its speed of development. Nevertheless we should never assume that osteoarthritis is inevitable. Many ninety-year-olds barely have any arthritis at all and what they seem to have in common is that they have remained active throughout their lives, have avoided joint injuries, have had good nutrition and their lifestyles have been relatively free of stress.

### **Diagnosis of Osteoarthritis**

Laboratory tests are often done to rule out rheumatoid arthritis but there are no specific tests to diagnose osteoarthritis. X-rays will usually help provide definitive evidence of the joint changes that accompany arthritis. Other imaging techniques such as MRI are often less efficient in determining such changes and are not usually necessary for a clinical diagnosis. A proper clinical examination can in most cases provide a valid diagnosis.

### **Osteoarthritis Symptoms**

Osteoarthritis symptoms may include joint pain, creaking, locking of the joints, stiffness, tenderness and local inflammation. These symptoms tend to reduce or clear altogether with gentle activity. The degenerative changes that lead to arthritis start with the loss of joint cartilage, a resilient protein matrix that cushions and lubricates the joints. That loss may depend upon a number of factors such as your genetic make-up, your body chemistry and previous damage to the joint. Although our bodies attempt to limit any ongoing damage, factors, such as immune and re-growth processes, can overcome those attempts and cartilage continues to wear down. If cartilage thinning continues the bone becomes exposed and deterioration begins, with the laying down of dense, ivory-like, bone in those areas of cartilage loss. As the cartilage thins the joint surfaces narrow and extra hard bone grows around the edges of the joint, making it larger and "knobbly". The most common area for it to happen is in the hands. Some people with arthritis are able to tell if it's going to rain as drops in atmospheric pressure increase the pressure within our joints. Most of us do not sense this, but those who have a slight soreness and swelling in their joints already will be able to feel an increase in joint discomfort.

Weight-bearing joints, like the hips, knees spine and feet and those we are constantly using, such as the hands and fingers, are the most susceptible to osteoarthritis. Pain that is often felt upon standing and walking will gradually increase as the process develops. In order to avoid pain people will tend to reduce their movements but as movement decreases so the regional muscles begin to atrophy and

ligaments become lax. Some researchers consider that muscle weakness brings on the wear in the first place, rather than causing it.

### **Hip arthritis**

Hip arthritis can be caused by a variety of factors but one of the earliest developments is weakness of the buttock, the bulk of which is made up of the Gluteus Maximus muscle. Gluteus Maximus muscle weakness is considered to be a major contributory factor in the onset of hip arthritis. It often arises from mechanical problems in the low back, hip and pelvis. If muscles that support the hip become weak or imbalanced there are alterations in hip movement that can accelerate damage and the osteoarthritis worsens. Simple tests will be undertaken by your chiropractor to determine whether you have gluteus maximus muscle weakness.

### **Hip arthritis test**

The commonest test for hip arthritis is the Fabere test. You can do this at home to test your own hips. Lying on your back with one leg out straight, place the toes of the other leg behind the straightened knee. You should then be able to extend the bent knee outwards to make the figure "4". Repeat this on the other side. Both hips should move outward to the same degree and there should be no pain. If there is any pain, if you can't push the knees out far or if one or both hips feel restricted call us for an appointment to check it out for you.

### **Natural, drug-free arthritis treatment**

In spite of there being no cure for osteoarthritis there are a number of treatments that can reduce the symptoms, although the progressive, ongoing nature of the disease does mean that treatments will need to be maintained to secure continued benefits.

The National Institute for Clinical Excellence (NICE) has recommended a number of beneficial approaches, including paracetamol, exercise, weight reduction, anti-inflammatory creams and shock absorbent insoles for shoes. Several studies have advised that stronger opioid pain-killers be avoided due to their adverse side effects.

Dr John Dickson, a rheumatology specialist and the clinical adviser to NICE for its osteoarthritis guidelines said: 'There are few trials to show opioids are any good in osteoarthritis and I don't use them much. But people tell us not to use NSAIDs and for GPs there is very little to offer these patients.'

Our healthcare 2000 clinicians use the best evidence from recent studies to support their management of osteoarthritis.

## **Chiropractic and physiotherapy for arthritis**

Chiropractors locate damaged and malfunctioning joints through clinical examination, palpation and muscle testing. Pain and stiffness usually respond well to improvement in joint function. We adjust the joints, use stretching and mobilisation and prescribe exercises to strengthen weak muscles and improve flexibility, thereby reducing your arthritis symptoms. We can also advise on the use of insoles or orthotics.

Moderate exercise leads to an increase in joint function and a decrease in arthritic pain. By improving joint motion and the elasticity of joint tissues both chiropractic and physiotherapy treatments aid in restoring cartilage nutrition and improving joint health, thereby protecting joint structures from the potential damage of common daily activities. Improvements can be gained by maintaining or regaining joint mobility and flexibility through low-intensity, controlled movements that are designed to avoid increased pain. Because muscle weakness around an osteoarthritic joint is common, Progressive resistive/strengthening exercises are given to load muscles in a graduated manner that allows them to strengthen whilst limiting tissue injury.

Low level laser therapy, also known as cold laser therapy, is the application of red and near infra-red light over tissue injuries to improve soft tissue healing. Laser therapy is extremely safe with no known contraindications. A special inhibitory feature enables the therapist to reduce ongoing pain, allowing for beneficial manual treatment. Our physiotherapist uses laser therapy to increase the speed, quality and strength of tissue repair, resolve inflammation and give pain relief. The laser can be effective in treating acute and chronic pain, inflammation and the joint damage of osteoarthritis. A recent trial comparing laser therapy with a placebo showed a significant improvement in pain, movement and swelling in knee osteoarthritis.

## **Acupuncture**

Our physiotherapist and both chiropractors use dry needling (acupuncture) to help reduce pain associated with arthritis. The reduction of pain in turn allows an increase in joint activity, thereby slowing down degenerative change. Although there is a need for more scientific evidence into the effectiveness of acupuncture for pain relief, many pain clinics use acupuncture to reduce pain and increase joint activity.

## **Dietary factors**

Some of the common types of fat found in our diets are converted by our bodies into inflammatory prostaglandins. These substances will increase inflammation and will therefore lead to more pain. Because 'hydrogenated' (processed) fats lead to the formation of "free radicals" that can go on to damage joints, you should try and avoid any foods containing hydrogenated fats. Unfortunately they are to be found in many convenience foods, so it is important to check out the labels and try to choose fresh, organic produce where possible.

## **Essential fatty acids**

Not all fats are harmful. Some have anti-inflammatory properties and may help lower the pain felt by some arthritis sufferers. Various studies have investigated the effectiveness of essential fatty acids in improving arthritic joints and the evidence is showing some promise. Omega-6 and Omega-3 fats are "essential fatty acids", anti-inflammatory agents that are found in unsaturated vegetable oils and in oily fish such as salmon, herring and sardines. If it is difficult to get your supply from your daily diet, supplements of borage, blackcurrant seed oil or stable fish oil can be helpful in making up for deficiencies.

## **Antioxidants**

The antioxidant nutrients, vitamins A,C,E, selenium and zinc, help to fight free radicals and are therefore useful nutrients in managing arthritic joints. Free radicals are unstable molecules that will react with other unstable molecules in the body to cause cardiovascular damage and joint problems. Antioxidants are effective in 'mopping up' free radicals. In addition to its antioxidant properties, vitamin C is an important constituent of collagen and has the added benefit of helping to build and repair cartilage.

## **Glucosamine Sulphate**

Because Glucosamine Sulphate is involved in joint maintenance and synovial fluid (the joint lubricant) production it is a supplement that many osteoarthritis sufferers have found helpful. A number of studies have compared Glucosamine Sulphate with non-steroidal, anti-inflammatory drugs (NSAIDs) to determine their effectiveness in pain relief and in improving joint mobility. NSAIDs and Glucosamine Sulphate were found to be effective in achieving both pain relief and joint mobility but Glucosamine Sulphate had the additional benefit of avoiding the side effects that many anti-arthritic drugs cause.

## **Minerals and Herbs**

Bone minerals and herbs are also essential to prevent bone loss and to maintain bone density. Calcium, magnesium and boron are important minerals that help to maintain bone density and reduce bone loss and may be taken as supplements to enhance the dietary uptake. Herbal preparations of shave grass, which contains silica, are considered to be helpful for bone development and yucca has been found to contain anti-inflammatory properties.

MSM (Methyl Sulphonyl Methane) is a form of organic sulphur. Sulphur plays a part in the formation of cartilage, ligaments and tendons. Studies have shown that when taken as a dietary supplement MSM is well absorbed by the body and it has been found to improve joint mobility and lower pain.

## **Dietary changes**

The typical diet has changed radically over the last 100 years. In some respects our new diets have been beneficial in providing a wide variety of important nutrients. Along with changes in society and an understanding of public health, nutritional factors have led to greater life expectancy and diseases such as rickets, so common in Dickensian times, are now rarely seen.

However, dietary changes have not all been for our good. The last century has seen an increased consumption of animal products, processed foods, trans-fatty acids, and refined carbohydrates with a high glycaemic index along with a high ratio of omega-6 fatty acids. Alterations in omega-3 and omega-6 ratios have created an imbalance that leads to a pro-inflammatory physiological state. All of these negative factors encourage inflammation and lead to increased levels of arachidonic acid, a precursor to pro-inflammatory molecules (prostaglandin E2).