



## Fact sheet : Arthritis

### What is arthritis?

Arthritis is inflammation of a joint characterised by pain, swelling, stiffness and redness. Arthritis is not a single disorder but the name of a joint disease from a number of causes. The arthritis may involve one joint or many and can vary in severity from a mild ache and stiffness to severe pain and, later, joint deformity.

There are more than 100 diseases classified as a type of arthritis or rheumatic disease. The list includes among others ankylosing spondylitis, fibromyalgia, gout, juvenile rheumatoid arthritis, osteoarthritis, Paget's disease, psoriatic arthritis and rheumatoid arthritis.

The three most common forms of arthritis are osteoarthritis, rheumatoid arthritis and gout.



### Osteoarthritis (OA)

Also known as degenerative arthritis, OA tends to affect people in middle age and is a localised degeneration of joints that involves structural changes, particularly loss of cartilage and the growth of bony spurs (osteophytes). Synovial fluid, the fluid that keeps joints mobile and pain free, tends to be clear in osteoarthritis but may contain calcium pyrophosphate crystals which can cause irritation and increase swelling. The onset of OA is gradual with progressive pain and joint enlargement, which may involve single or multiple joints, but it does not migrate from joint to joint.

While not strictly an inflammatory disorder, OA does involve some inflammation that can be measured with a blood test.

### Rheumatoid arthritis (RA)

RA is an inflammatory, auto-immune condition that affects the whole body, including skin, lymph nodes, lungs, heart, liver and kidneys, as well as joints. In RA the joints are swollen and painful and because RA is a systemic condition, the sufferer feels tired and unwell.

Both osteoarthritis and rheumatoid arthritis affect mainly women.



## Gout

Gout is a recurrent form of arthritis affecting the peripheral joints, particularly the big toe, that affects men more than women. It used to be called the rich man's disease and was commonly associated with a diet high in red meat and alcohol. However, poor man's gout is linked to a diet high in refined carbohydrates, sugar, coffee and alcohol. It is caused by the deposition of uric acid crystals in joints, leading to warmth, swelling, acute tenderness and redness and if not treated can lead to gradual joint destruction. As well as the big toes, ankles, earlobes, tendons and cartilage are also affected by gout.

## What causes arthritis?

While a medical diagnosis will tell you which specific type of arthritis you have, all forms share some characteristics that have led to joint degeneration, auto-immunity, inflammation and high uric acid levels.

- **Genetic predisposition.** If it runs in the family then you are more likely to have inherited the same metabolic weaknesses.
- **Autotoxicity.** This refers to an accumulation of toxins in the body due to poor elimination function via the colon, kidneys and sweat glands. Acid wastes tend to predominate and they get deposited in joints initiating arthritic changes.
- **High acid diet.** The pH of the blood is normally alkaline, about 7.5. The body draws calcium, magnesium, potassium and sodium from cells and bones to maintain a constant pH. A diet high in acid forming foods uses up these minerals very quickly causing a calcium imbalance in bones and joints and raising uric acid levels in the blood. Acid crystals get deposited in joints to some degree or other in all forms of arthritis.
- **Low stomach acid.** Stomach acid is important for the breakdown of protein in the diet and for the release of minerals for absorption further on in the digestive tract. Low stomach acid, often characterised by an apparent excess of acid, leads to improperly digested proteins and low mineral absorption.
- **Lack of digestive enzymes.** Without adequate digestive enzymes, foods continue improperly digested into the intestines where they can ferment and start the process of allergy and inflammation.
- **Leaky gut.** This is when the intestinal membrane becomes dysfunctional and inefficient at filtering nutrients through into the blood stream. In the presence of low stomach acid and lack of digestive enzymes, improperly broken down food molecules pass through the intestinal membrane and set up an auto-immune response and inflammation. **This is particularly important in RA.**
- **Food allergies and intolerance.** People with both OA and RA usually have food intolerances, often many of them, due to the dysfunction of the digestive tract and leaky gut.



- **Lack of essential fatty acids.** These are the 'good' fats and oils that the body needs for healthy joint maintenance and the production of synovial fluid. They are also natural anti-inflammatories and are important in any anti-arthritis regime.
- **Lack of vitamins and minerals.** Many vitamins and minerals are needed to rebalance the body. Of particular importance are vitamin D and magnesium to keep calcium in the bones and not deposited in joints. Manganese is vital for cartilage production and maintenance. B vitamins are important for healthy liver function and detoxification. Vitamin E has natural anti-inflammatory action and stimulates cartilage production. Vitamin C is important for cartilage and is vital for all tissue repair. Zinc is often low in people with RA and is needed for tissue repair. Selenium works with vitamin E and is important in anti-oxidising enzymes. People with RA are usually low in selenium.
- **Free radical damage.** Antioxidants found in food and supplements are important for stopping the damage caused to joints and the immune system by free radical. Diets high in vegetables and fruits contain a lot of anti-oxidants.
- **Fungal and yeast infections** and damage to the immune system caused by mycotoxins released by the fungi. Candida Albicans is often an underlying factor in arthritis.

## Nutrition and lifestyle healing for arthritis

Of all the causes, diet plays a key part in arthritis. Unfortunately today, despite the knowledge, and choice of foods available (or maybe because of it) people still tend to eat a diet that is made up largely of refined carbohydrates, meat, sugar, saturated fats, and which is therefore low in fibre, essential fatty acids, vitamins and minerals.

This kind of diet is also very acidic and this leads to changes at cellular level and damage to enzyme systems. The blood is naturally alkaline and we need to provide it with a predominantly fruit and vegetable diet to keep it that way. An acidic diet tends also to be high in phosphorous and low in magnesium, which leads to calcium imbalance - a major factor in joint changes. Too much acid in the diet will also lead to the changes found in gout.

One Danish specialist treating arthritis nutritionally has said, "*... many conditions that we thought of as diseases are really dietary deficiencies*".

## Food allergy and intolerance

We can develop (or be born with) all manner of food allergies and intolerances. Intolerance is much more difficult to identify because it does not necessarily register as a change in immune response with currently accepted medical tests for allergy. However, they cause unexplainable changes in body chemistry and in many cases of rheumatoid arthritis can be a major causative factor. The most common food groups found to cause increase in symptoms are:



- The **Nightshade family**, which includes tomatoes, aubergines (egg plant), potatoes, peppers (capsicum), paprika and tobacco.
- **Grains**, the most common one being **wheat**, but some people are sensitive to all **gluten-containing** grains, which also include **oats, rye** and **barley**. So no patisserie, bread, pizzas, pies, pasta, mueslis, breakfast cereals made from wheat, oats, rye, barley. Some unfortunately have total grain intolerance and this includes **rice, millet, maize (corn)** and **buckwheat**.
- **Citrus fruits**, ie grapefruit, oranges, lemons.
- **Dairy produce**, including milk, cheese, yoghurt, cream, ice cream, sour cream, buttermilk.
- **Red meat**, ie pork, beef, lamb and offal. It is high in saturated fats and purines, which can lead to a build up of uric acid crystals around the joints. As symptoms subside lean lamb can be eaten once a week.
- All '**Nutritional Stressors**', which include coffee, tea, sugar, salt, chocolate, cocoa, cola drinks, alcohol, tobacco. These interfere with blood sugar levels, upset the pancreas and over stimulate the adrenal glands. Caffeine directly affects the nervous system and all nutritional stressors generate free radicals. They cause a loss of nutrients and sugar has been shown to interfere with immunity.
- **Alcohol** is a toxin and contributes to toxic overload. It is especially important that gout sufferers avoid alcohol as it inhibits the excretion of uric acid via the kidneys, thus retaining uric acid in the body.
- **Yeast** and all foods containing yeast. This is particularly important for gout sufferers as yeast has a high purine content. However, systemic yeast and fungal infection is often present during conditions of chronic disease. See separate advice sheet on "Candidiasis".
- All **processed fats and oils** which includes all margerines (except Minelma), all commercial salad and cooking oils, except cold-pressed oils (ie virgin olive oil, sunflower oil etc), and linseed oil. Any foods made with saturated fat, or hydrogenated vegetable oil should also be avoided.

**Avoid these foods for a complete month and see how you feel.**

## Stress, lack of exercise and chronic fatigue

These can all lead to hormonal and chemical changes in the body which can cause damage.

## Toxic overload

Toxic overload results from poor diet, excessive consumption of coffee, alcohol, sugar and cigarettes, plus the use of drugs (both medicinal and recreational) and exposure to environmental pollution.



## Free radical damage

- All of the above will lead to the formation of, or ineffective destruction of, **free radicals**, the newest discovery in scientific and medical circles to explain the causes of ageing and disease. Free radicals are molecules with an unpaired electron which go around damaging healthy cells in an effort to rebalance themselves.
- They are formed as a result of our being an oxygen-dependent life form, so that all our energy-producing activities produces some free radicals. They are also created as a result of **stress**, be it chemical stress (from environmental pollution, including radiation), emotional stress, physical trauma, infection and sunlight.
- We produce enzymes, namely **superoxide dismutase, glutathione peroxidase, catalase** and **methione reductase**, which will deactivate and destroy free radicals, but if we are suffering the effects of poor diet, toxic overload and food intolerance/allergy more free radicals are being produced than we can get rid of.
- The **goal**, therefore of a nutritional approach to arthritis and gout is to remove the stresses, and resulting free radical damage, by dietary changes and adding vitamins, minerals, enzymes and essential fatty acids to allow the body to call upon its own powers of healing.



## Profile: Carolyn Moody

### Optimum Nutritionist and Transformational Coach Founder Body Balance® Integrated Health



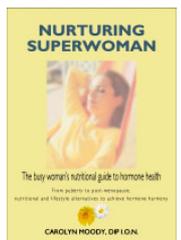
Carolyn trained at the Institute for Optimum Nutrition (ION) in London, founded by Patrick Holford, pioneer in optimum nutrition and health since the early 1980s. Since qualifying in 1990, she has helped thousands of people both in Belgium and internationally make more balanced nutritional and lifestyle choices.

In 2004, Carolyn created and founded the Body Balance® one-stop-shop for Integrated mind, body and emotional Health. At the heart of this approach is the principle of a high sense of self worth that liberates each person to live confidently, fearlessly and authentically. Through the unique and powerful combination of Optimum Nutrition, holistic lifestyle education and Transformational coaching, the programme helps people develop a strong self-belief, excellent mental, physical and emotional health, and a sense of inner peace.

### Published author

Carolyn is a published author, having written many articles for a variety of magazines, including The Bulletin, Away magazine, BART (Business Aviation) magazine, and the UK Nutrition publication - ION Journal.

She has also written a book, 'Nurturing Superwoman', about women's nutritional health. The next book is in the making.



### Educator/Trainer and Public speaker

Carolyn is an experienced educator. She has devised many training programmes, writing all her own comprehensive course material, including the unique 600-page Body Balance training manual. As well as writing and teaching, Carolyn is an experienced Public Speaker. Topics include:

- Many different aspects of **health and nutrition**, including stress, blood sugar balance, cardiovascular disease, men and women's hormone health, digestive health, weight management, what to eat ... plus many more
- **Dealing with difficult people** – Confident, compassionate and assertive communication for conflict resolution
- **Confidence building** through letting go of fear and trusting self
- **Calm the busy mind** –Biochemistry and habitual thought patterns keep our minds hyperactive and out of control. Learn how to calm the over busy mind through nutritional choices, guided visualizations and creating new thought tracks.

### Who's who

Organisations that have invited me to speak include Conference Board, EUMA, P&G, Aspria, MasterCard Europe, NATO, SHAPE, EuroControl, MCE (Management Centre Europe).