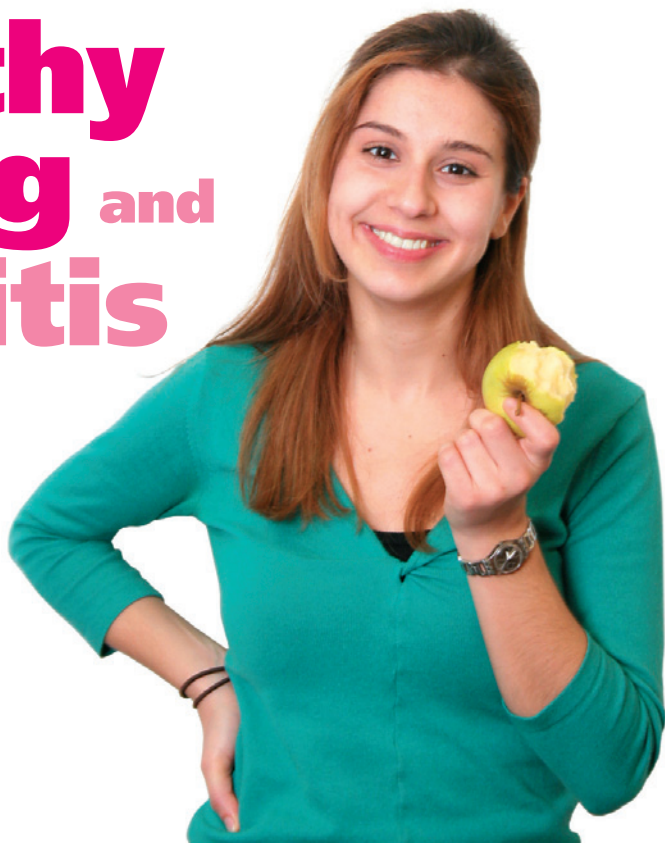


# Healthy eating and arthritis



devised with and for people with arthritis



ARTHRITIS CARE

*Empowering  
people with arthritis.*



The aim of this booklet is to explain what makes up a healthy diet and what foods, if any, might be particularly beneficial or bad for people with arthritis.

Eating a balanced diet and maintaining a healthy weight can have a huge impact on your overall wellbeing and your arthritis. As well as ensuring that your body has all the essential nutrients to function, eating healthily may help reduce the symptoms of arthritis both directly and by reducing the stress on your joints through weight loss. If you are underweight, a balanced diet should help you overcome exhaustion and gain healthy weight.

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**Arthritis Care is now a certified member of The Information Standard. This means that you can be confident that Arthritis Care is a reliable and trustworthy source of health and social care information.**

*All people pictured on the cover and quoted in this booklet have arthritis.*

## A HEALTHY LIFESTYLE

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It is important to maintain a healthy lifestyle when you have arthritis. This will help you manage your arthritis and stop it getting worse. By eating a varied diet and taking enough exercise, you should be able to enjoy generally good health.

### ■ Why is a healthy diet important for people with arthritis?

A varied diet is essential to provide the right balance of nutrients our bodies need for day-to-day functions. Following a healthy diet might also reduce the amount of arthritis medications you need to take and their side effects.

There is a lot of confusing and conflicting information on diet and arthritis, and whether or not particular foods are helpful or harmful. Although certain foods

might have more of an effect on your arthritis than others, the most important thing is to have a balanced diet to ensure you get all the nutrients your body needs. The basic idea is to eat less fat, less sugar, more fruit and vegetables, more oily fish and plenty of calcium and iron-rich foods.

You will probably find that everyone wants to give you advice on what to eat and what not to eat. Remember that everyone reacts differently to specific foods and that you have to work out for yourself what suits you best.

**I would like to lose weight to reduce the stress on my joints**

### ■ Controlling your weight

Carrying excess weight is a common problem for people with arthritis. Certain drugs, such as steroids, can lead to weight gain, and others, such as non-steroidal anti-inflammatories (NSAIDs), can lead to stomach problems, making dietary choices harder. Some people may find that their arthritis makes exercising and preparing fresh food more difficult, so they put on weight easily. Others get trapped in a

similar cycle during a flare-up, but one in which they are too tired to eat and consequently lose weight, becoming even more exhausted.

Eating a balanced diet is key to maintaining a healthy weight. Controlling your weight is often the most effective thing you can do to reduce the symptoms of arthritis. Even a small weight loss can reduce strain on the hips, back, knees and feet if you are too heavy. And making sure you are not underweight should help to give your body the necessary strength and nutrition to get through a flare-up and to fight disease.

For ideas on how to get active read Arthritis Care's booklet on exercise.

### A healthy body weight

A healthy body weight is achieved by balancing the energy intake in our diet with the energy we use through activity. However, every individual has unique nutritional requirements, depending on your age, gender, body size and level of activity. A guideline daily intake is 2,000 kilocalories (known as kcal) for an active woman and 2,500 kilocalories for an active man. Therefore, for people with arthritis who are less able to exercise, the only way to lose weight is to eat fewer calories. It is important to choose the calories you do eat carefully to ensure that you still have an adequate supply of vitamins and minerals in your diet.

**I can't exercise really, so the only way to control my weight is to eat healthily**

If you need to gain weight, eating slightly larger quantities of the healthier foods is the best approach so that you are taking in more calories. Rather than simply eating more fried foods and chocolate (which won't help your overall health in the long run), try things such as having an extra slice of toast at breakfast, or an extra helping of pasta or rice. Although exercise burns calories, if you can, include some form of activity to keep your bones as strong and your muscles as toned as possible.

Lots of foods, particularly processed foods, contain hidden fat, sugar



and salt. Preparing your own food allows you to control what you are eating. If you have difficulties cooking from scratch but need to lose weight, choose the low fat versions of ready meals from the supermarket, checking the calorie and salt content on the back of the packaging. For more ideas see 'How to maintain a healthy diet' further on.

Doctors use the body mass index (BMI) to tell if your weight is within a healthy range. This is your weight (in kilograms) divided by your height squared (in metres squared). People are classed as underweight if they have a BMI of below 20, overweight if their BMI is 25-30 and obese if it is over 30. Alternatively, you can refer to the chart on page 4 to work out your BMI. Find your height first and then your weight and follow the values to where the two meet to give your BMI.

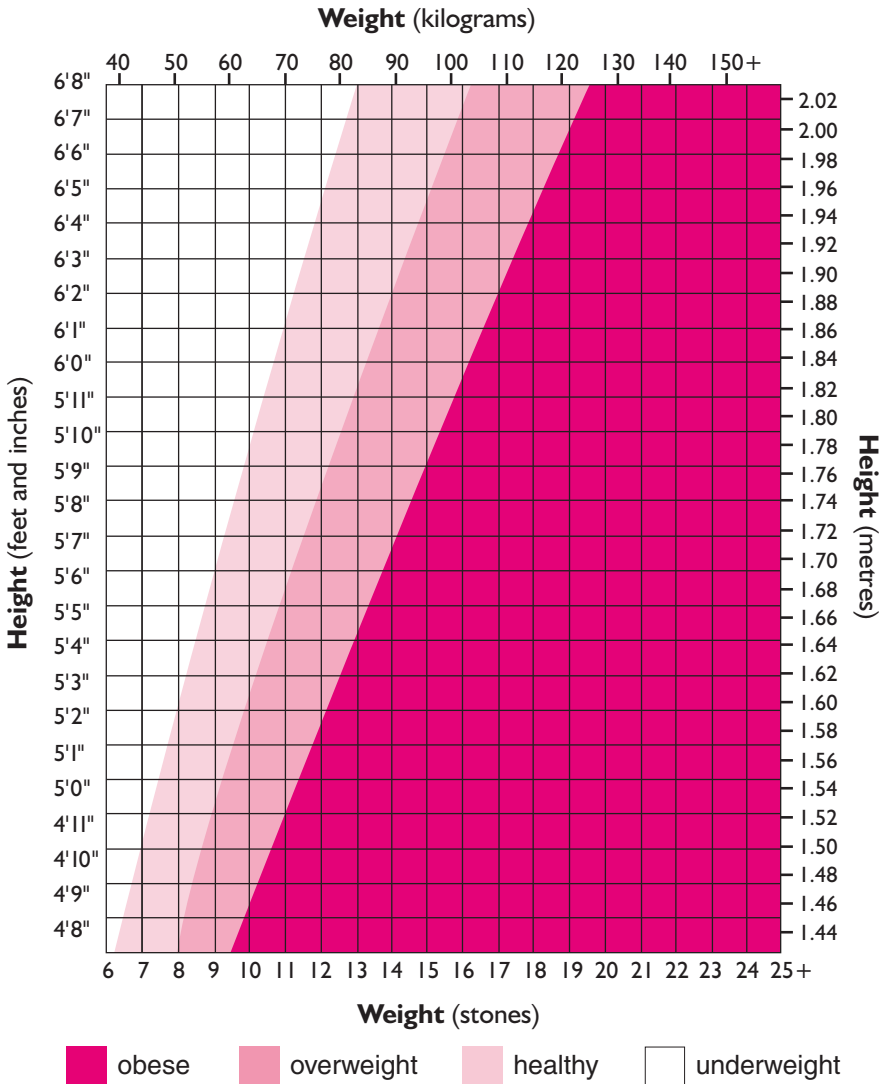
The BMI does not take your body composition into account – if you have well-defined muscles, but low levels of body fat, you may appear as obese on the chart. Therefore, doctors sometimes also use waist circumference measurements to decide whether people are of a healthy weight. People with a waist circumference of more than 80cm/31.5 inches (women) and 94cm/37 inches (men) are considered to be at increased risk of health problems.

**The heavier you are the worse your arthritis is**

You should always consult your doctor or nurse before starting a weight loss programme as it is important to lose weight in the correct way – crash diets can harm your body. The British Dietetic Association's weight wise website has some useful tips on how to lose weight ([www.bdaweightwise.com](http://www.bdaweightwise.com)).

It is possible to maintain a healthy body weight and still enjoy your food. This booklet will tell you about some of the healthier options, but the occasional treat or rich meal shouldn't hurt. It is all about balance.

## BODY MASS INDEX CHART



# WHAT MAKES UP A HEALTHY DIET?

Eating a healthy diet is about getting a variety of food from different food groups.

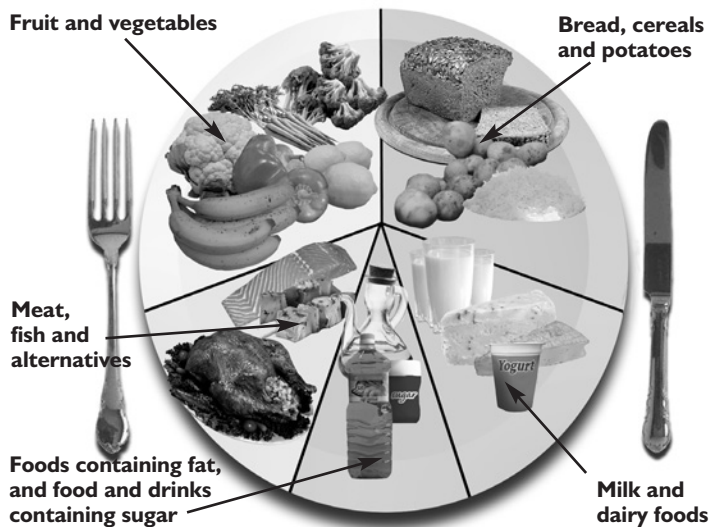
In general, a healthy diet is one that is:

- high in fruit and vegetables
- high in starch and fibre
- low in fatty foods and salt
- low in added sugars.

A balanced diet contains carbohydrates, protein, fat, vitamins and minerals, and fibre. Carbohydrates provide us with energy. Protein is essential for growth and repair of the body. Vitamins and minerals play a major part in the healthy functioning of our bodies. Although it is healthy not to consume too much fat, our bodies do need some fat. Fat provides us with energy and also helps us to absorb certain vitamins. Fibre helps with bowel health (especially important for those who have slower bowel movements as a result of not being able to exercise or taking certain medications).

## Food groups

There are five main food groups. The diagram opposite shows the proportion of your diet they should make up. You do not need to have this balance at every meal, but you should aim to achieve this over the day or the week.



### Breads, cereals and potatoes –

Starchy foods should make up a third of most meals and snacks as they are the healthiest source of energy. These include:

- bread
- pasta
- noodles
- rice
- couscous
- cereals
- potatoes.

These foods also provide vitamins, minerals and fibre. They are not usually high in calories unless you add sugars or fats to them. Some cereals already contain added salt and sugar, so check the back of cereal packets carefully before purchasing.

Whenever possible, instead of white rice, pasta and bread, use brown (or wholemeal or wholegrain) varieties as these provide energy for longer, are higher in fibre and provide vitamins and minerals.



**Fruits and vegetables** – Fruits and vegetables should make up a third of our diets as they provide a wide range of vitamins, minerals and fibre. They are also low in fat.

Eating fruits and vegetables also provides us with antioxidants.

These are substances which reduce inflammation and can help protect joints. Brightly coloured fruits and vegetables are highest in antioxidants and other protective substances and include:

- apples

**We eat a lot of fruit and vegetables and I cook everything from scratch**

- oranges
- cherries
- blueberries
- spinach
- beetroot
- broccoli.



It is recommended that

everyone eats at least five portions of different types of fruits and vegetables a day to get a sufficient range of vitamins and minerals. Frozen vegetables contain similar, or higher, levels of vitamins as fresh produce because they are frozen shortly after being picked. Canned and dried vegetables and fruit juice also count.

Potatoes, yam and cassava are considered starchy foods rather than vegetables, but there is a whole host of other exciting choices. Eating fruits and vegetables is the ideal way to be healthy as you can eat lots more of them than other types of food because they are low in calories.

**We don't have ready meals or processed food. Homemade soups are very easy to make**

As a general rule, one portion of fruit or vegetables is equivalent to 80g (approximately one handful or one medium sized piece of fruit or vegetable) or 150ml of fruit juice. As a rough guide, the following constitute a portion:

- one apple, banana, orange, large tomato or onion
- two plums
- half a grapefruit, avocado or pepper
- one slice of a large fruit such as pineapple or melon
- three heaped tablespoons of fresh fruit salad
- one glass of fruit juice
- one heaped tablespoon of dried fruit
- one handful of grapes, cherries or berries
- a dessert bowl of salad
- three heaped tablespoons of vegetables, beans or pulses

● two large broccoli florets.  
It should not be hard to include five portions of fruit and vegetables into your daily diet.

Try the following:

- have a fruit juice or fruit smoothie with your breakfast
- keep a sandwich bag with dried fruit in your bag or at your desk
- dip carrot or celery sticks into hummus as a snack
- serve vegetables as a side dish with your dinner
- finish your meal with a fruit salad.

If you do not like the taste of vegetables or your family are fussy eaters, you could try some of the following ideas:

- blend some tomatoes, onions, mushrooms and peppers to make a pasta sauce
- add swede, carrots or peas to potato for some interestingly coloured mash
- make fresh vegetable soup
- brightly coloured courgettes, aubergines, red and yellow peppers combined as vegetable kebabs
- sauté some tomatoes, onions and peppers and fill up tortillas to make fajitas.



**Meat, fish and alternatives** – Meat, poultry, fish, eggs, nuts and pulses (such as beans, chickpeas and lentils) are all included in this group, which should be eaten two to three times a day. These foods are a rich source of protein, vitamins and minerals, especially iron and zinc. Lean cuts of meat, especially red meat, will minimise your intake of saturated fat.

Vegetarians should be aware that iron from meat is more easily absorbed by the body than iron from plant sources. Vitamin C found

**We eat a lot of oily fish, I know it's good for arthritis**

in citrus fruits, tomatoes and leafy vegetables helps improve the absorption of iron from vegetables and cereals.

Fortified breakfast cereals, chickpeas, spinach, baked beans and muesli are all useful sources of iron (for more information, see page 19). Soya products are a good source of protein for vegetarians and vegans. As well as being a good source of protein, peas, beans and lentils are also a good source of fibre.

Oily fish, such as fresh salmon, mackerel, sardines, pilchards and anchovies contain very healthy fat which can protect against heart disease and reduce the symptoms of arthritis (See 'Omega-3 fats' on page 17-18).



**Milk and dairy foods** – It is recommended that we eat three servings a day from this group as it is the richest source of calcium in the diet and is important for healthy bones and strong teeth. A pot of yoghurt, a glass of milk or a small piece of cheese counts as a serving. This group is also a good source of protein and vitamins B12, A and D.

Adults should try to select the low-fat versions of these products, such as semi-skimmed or skimmed milk, which contain just as much calcium, protein and B vitamins. Children should have whole milk to ensure an adequate supply of energy and fat-soluble vitamins.

Foods and drinks in this group include:

- milk and milkshakes
- cheese (hard cheese, cottage cheese, fromage frais)
- yoghurt.

**Fatty and sugary foods** – These foods provide energy although they contain few nutrients and can be harmful in large quantities. Most people eat more fat than they need for their health. Sugar can rot your teeth and fat can clog your arteries. There are twice as many calories in fat as the same weight of protein or carbohydrate. Foods in this group include butter, chocolate, fizzy drinks and squashes.

Saturated fats and trans fats increase cholesterol levels and, therefore, increase the risk of heart disease. In addition, there is some evidence that they might worsen the symptoms of arthritis. Foods containing these fats include:

- meat products and meat pies
- hard cheese
- butter, lard and ghee
- pastry
- cakes and biscuits
- cream.

Oils and margarines made from corn or sunflower sources are rich in omega-6 polyunsaturates which increase inflammation in the body (not to be confused with omega-3 polyunsaturates, which have a beneficial effect). Therefore, these fats should be eaten in moderation.

Omega-3 polyunsaturated fats do not raise cholesterol levels – in fact they can reduce cholesterol and we should be eating more of these. As well as protecting against heart disease, omega-3 fats reduce inflammation. The main source of omega-3 fats is oily fish (see ‘Interaction between food and arthritis’ further on).

Monounsaturated fats can be found in olive oil and rapeseed oil, and do not increase or decrease inflammation.

Here are some tips to help you reduce your intake of harmful fats:

- use olive oil, flaxseed oil or rapeseed oil instead of butter, lard, sunflower oil or ghee

**A Jamaican friend of mine taught me a great recipe. You cook a salmon fillet on a griddle with some ginger and garlic and you don't even need to use oil**



- snack on a handful of unsalted nuts and dried fruit instead of biscuits
- make mashed potato with olive oil and garlic instead of butter
- choose spreads high in monounsaturates or skip completely in sandwiches
- buy lean cuts of meat and trim off visible fat
- add more vegetables and beans, and less meat to stews
- use yoghurt or fromage frais instead of cream in recipes.

**Eating lots of fruit and vegetables cleanses your system**

Be aware that a lot of foods marketed as low fat actually contain very high quantities of sugar or salt to make up the flavour. Trans fats (sometimes called 'hydrogenated fats') do not have to be labelled, so don't eat lots of cakes and pastry products.

**Water** – Ensure that your body is fully hydrated by drinking enough water. You should be drinking at least six to eight glasses (1.2 litres) of water, tea, coffee, milk or fruit juices a day.

Choose a variety of drinks to get the health benefits of each, but drink tea and coffee in moderation because they contain caffeine.

Remember to drink more fluids when the weather is hot, if you are exercising or if you are on a long plane journey. This is because you will lose more water naturally.

**Salt** – It is important to limit your intake of salt (also known as sodium chloride) to a maximum of 6g a day for adults. This is because a high salt intake can cause high blood pressure, which is hard to detect and very serious.

Check processed foods carefully for their salt or sodium content. Don't forget to count any salt you add to food at the table when calculating your intake.

## HOW TO MAINTAIN A HEALTHY DIET

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When you have arthritis, everyday tasks can become more difficult and painful. Eating healthily does not necessarily mean more effort or more money. In fact, it may even work out to be cheaper. Processed foods are usually more expensive than fresh fruit and vegetables.

Preparing fresh food does not have to mean hours in the kitchen. Some careful planning, in the shops and the kitchen, can make the transition to a healthier lifestyle much easier.

### ■ Organising yourself

Here are some tips to make cooking and shopping easier – and cheaper.

- Plan your weekly meals in advance so you can make sure you have the ingredients you need.
- If you cannot get out to the shops, you could either ask a family member or friend to do the occasional shop for you, do your shopping over the internet, or perhaps even buy healthy ready meals from a company that will deliver.
- Buy larger versions of products (such as bread) in the shops and freeze what you do not want to use straight away.
- Buy frozen vegetables – they are cheaper, easier to use (as no chopping is involved) and quite often contain more vitamins.
- Canned fruits, vegetables and pulses can be a useful standby.
- Buy pre-chopped fresh vegetables and salads, but remember that cut vegetables lose their nutrients very quickly and that this might not be the cheapest option.
- Get lots of cooking done in advance, and store food in the freezer for when you are not feeling well or have had a flare-up.

**I always make two or three times the quantity of food. It makes it so much easier if I'm not feeling great later**

### ■ Organising your kitchen

There are many things that you can do in the kitchen to ease the

strain on your joints, including:

- using lightweight pans, mugs and kettles and tools such as slotted spoons
- using large handled and sharp knives
- using an electric tin opener
- rearranging cupboards so the things you use the most are within easy reach
- sliding items along a work surface rather than lifting them
- fitting devices to turn the taps more easily
- using a perching stool to sit on whilst you are preparing food.

You will find lots of useful gadgets in specialist shops, or they may be cheaper in your local supermarket. You might be able to get some help adapting your kitchen or finding equipment through an occupational therapist. See Arthritis Care's booklet on independent living for more information and labour-saving ideas.

**Internet shopping is an absolute boon for me. I don't have to worry about lugging heavy shopping bags around**

## ■ Staying healthy

Buying healthy ingredients is the first step. The method of cooking that you choose can affect the nutritional value of your meals greatly.



**Cooking methods** – Cooking methods such as grilling, baking, poaching or steaming are healthier than frying or roasting as you do not need to add extra fat. Steaming or gently boiling vegetables with the lid on retains more nutrients.

Overcooking food destroys its vitamin and mineral content. Microwaving vegetables avoids having to lift heavy pans of water, but be careful not to overcook.

Fruit and vegetables lose their vitamin and mineral content quickly so it is best to eat them soon after you buy them.

**I don't like ready meals because they're high in fat and you never really know what goes into them**

**Portion sizes** – Eating regularly helps ensure you eat a balanced diet. This might not always be practical, but some of the following tips might help you to control how much you eat.

- Drink a glass of water before eating to fill your stomach.
- Put less on your plate and eat off a smaller plate.
- If you eat slowly, you will feel full faster.
- Fill up your plate with vegetables or salad.
- Set aside leftovers in a container to be frozen
- Get your proportions right. The diagram on page 5 shows what proportion of each food group you should have on your plate.

**Eating out** – Eating healthily when you are out and about can sometimes be a challenge as you will not always know how the food has been prepared and what it contains.

If you are making or buying a sandwich at lunchtime, choose wholemeal or brown bread instead of white bread. Skip the butter and mayonnaise in your sandwich – after a while you will not notice the difference. Lean meats, such as ham, beef, turkey, chicken without the skin, are low-fat sandwich fillings. Many hard cheeses such as Cheddar are high in fat, whereas softer cheeses such as Edam and Emmental contain less fat (note that cheese spreads can be high in fat). Baked potatoes are another good lunchtime choice, minus the

butter. Healthy fillings include baked beans or cottage cheese. Ready-mixed fillings can contain a lot of fat because they are often made with mayonnaise.

**I always look at the labels on food and find them quite easy to understand**

Salads can be filling and tasty if you include some starch, such as rice, pasta or couscous. You could also add some cold meat, cheese, roasted vegetables and beans.

With some careful choices, eating out can be relatively healthy. If you know you will be eating out later, it makes sense to plan lighter meals throughout the day, but do not skip meals as you will overeat to compensate. In general, it is healthier to avoid fried, creamy or cheesy foods in restaurants. You could opt for grilled foods, pastas with tomato sauces and salads without dressing instead. However, eating richer foods occasionally is nothing to feel guilty about.

## **Some recipe ideas**

### *Orange salmon baked in foil*

This dish is packed with omega-3 fats and vitamin C. Serve with some ginger stir-fried spinach to top up your iron. Ginger is thought to have anti-inflammatory properties. A serving of brown rice will provide fibre and keep you full for longer.

- Lay a salmon fillet on some lightly oiled kitchen foil.
- Add some orange slices, seasoning and parsley.
- Seal the foil tightly and bake in a hot oven for 20-40 minutes depending on the thickness of the fillet.

### *Sweet potato and lentil pie*

In this dish the lentils provide protein, iron and fibre. A side helping of garlic stir-fried kale (or other greens) would also provide iron and calcium. Sweet potatoes contain more vitamin A and fibre than regular potatoes.

- Wash, then boil brown lentils with a vegetable stock cube for 20-30 minutes until tender.
- Boil four large sweet potatoes, peel and mash.

- Heat a little rapeseed oil in a pan, fry some red onion, tomato and red peppers. Add the lentils and seasoning.
- Pour the lentil mixture into a dish and top with the mashed sweet potato, and bake in the oven for about 20 minutes.

### *Peanut chicken and vegetable stir-fry*

You can use any combination of vegetables, meat, fish, or tofu with this dish. Peanut butter contains folic acid, but it is fattening, so only use sparingly. Serve with brown rice for an even healthier meal.

- To make the peanut sauce, combine a tablespoon of peanut butter, a tablespoon of sweet chilli sauce and a dash of soy sauce.
- Heat a tablespoon of olive oil in a large pan or wok. Add onion and sliced chicken or tofu and cook for about five minutes.
- Add your choice of vegetables (chopped up small).
- Add the peanut sauce and a little water and cook the vegetables for five minutes.

### *Vegetable curry*

Vegetables are packed full of vitamins and minerals. Turmeric and chilli powder are thought to have anti-inflammatory properties. Instead of fresh spices you can buy a jar of curry paste and combine two tablespoons with water to make a sauce.

- Fry an onion and a clove of garlic in a little olive oil for two minutes before adding some fresh chopped tomatoes (or a can of tomatoes).
- Add a teaspoon of turmeric powder, then chilli powder and black pepper.
- Add the vegetables – choose from boiled potatoes, green beans, peas, sweetcorn and carrots – with some hot water, and allow to cook for about 10 minutes.
- Add some fresh coriander and serve with rice.

## INTERACTION BETWEEN FOOD AND ARTHRITIS

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Although there has been a lot of research into the link between diet and arthritis, there is no definite connection between food and flare-ups. However, it is thought that certain foods can help reduce pain and inflammation, and slow the progression of arthritis.

Most of these foods form part of a healthy, well-balanced diet and are known to reduce the risk of other diseases, such as osteoporosis and heart disease. The risk of developing these conditions is increased in some people with arthritis – another reason to follow a balanced diet.

There is growing evidence that a Mediterranean diet is good for arthritis. This means moderate consumption of lean meat, choosing monounsaturated fats over saturated fats (see pages 9-11), and eating plenty of fresh fish and lots of fruits and vegetables.

It is important to consult your doctor or a dietitian before making any major changes, such as excluding food groups from your diet.

People who take steroids for a long period of time can develop osteoporosis, therefore it is important that you make sure there is enough calcium in your diet. People taking immunosuppressant drugs should avoid unpasteurised milk and cheese, and uncooked meats (for example, in pâté) because these foods increase the risk of food poisoning.

### ■ Omega-3 fats

There is evidence that substances called essential fatty acids (EFAs) in certain oils in the diet can help some people with arthritis. There are two types of EFAs: omega-3 fats found mainly in oily fish and some plant seed oils and nuts, and omega-6 fats found in corn, soybean and sunflower oils.

**I know that grapefruit juice can interfere with some medication for arthritis, but I don't really like it anyway**

There is growing evidence to suggest that omega-3 polyunsaturated fatty acids can help people with inflammatory arthritis. You should eat a greater amount of omega-3 fats as too much omega-6 can increase inflammation in the body. Most people probably have enough omega-6 fats in their diet already as these are found in saturated fats (such as meat products and cheese).

Omega-3 fats can be obtained through your diet, but many people with arthritis also take supplements as quite a large dose is needed to be effective (see 'Supplements').

Omega-3 fats are found in:

- oily fish
- avocados
- nuts and seeds
- vegetable (rapeseed) oil.

The best source in the diet is oily fish, such as salmon, sardines,

herring, mackerel and trout, or fresh tuna. You should try to eat oily fish twice a week. As oily fish can contain low levels of pollutants, the Food Standards Agency recommends that girls and women who are pregnant, planning to have a baby one day or breastfeeding eat no more than two portions a week. Other women and men are advised to eat no more than four portions each week.

If you have gout, limiting your intake of oily fish may help as they are rich in purines – substances which are thought to aggravate gout. Flaxseeds are a good source of omega-3 fats for vegetarians and vegans.

Omega-3 fats can lead to the production of harmful substances called free radicals. To combat this, it is important to consume these fats in combination with plenty of antioxidants (found in brightly coloured fruits and vegetables) and vitamin E (found in nuts, seeds, sweet potatoes and avocados).

**I have cut our wheat, gluten, dairy, red meat and fatty foods, and feel a lot better**

## ■ Calcium

People with rheumatoid arthritis are at increased risk of developing osteoporosis, so ensuring an adequate calcium intake is very important.

Foods rich in calcium include:

- sardines and whitebait (the bones contain the calcium)
- milk, yoghurt and cheese
- white, brown or wholemeal bread
- green leafy vegetables, such as kale, cabbage and okra (but not spinach)
- calcium-enriched soya products
- sesame seeds.

Vitamin D is also needed for the body to absorb calcium. The main source of vitamin D is from sunlight on our skin, but it is also found in oily fish.

Certain groups of people might not be able to use sunlight as a source of vitamin D and should consider taking a vitamin D supplement. This includes people who are unable to get outside, Asian women, and those who cover their skin.



## ■ Iron

Fatigue is a very common symptom of rheumatoid arthritis and can be made worse by anaemia (a deficiency of red blood cells). It is possible that anaemia can develop as a result of inflammation or because of the long-term use of NSAIDs, which can lead to loss of blood in the stomach. This is not very common though. Also, some people do not get enough iron in their diet. Iron-rich foods which can help tackle this include:

- red meat
- darker coloured fish
- eggs
- green leafy vegetables
- pulses
- fortified breakfast cereals.

**Having sought advice, I now avoid certain foods, which has had a significant impact on my life**

Iron is more easily absorbed by your body if you have it at the same time as vitamin C, so have a portion of fruit or vegetables with

your meal. However, drinking tea with or straight after your meal inhibits the absorption of iron.

## ■ Particular foods that could help people with arthritis

This at-a-glance list of foods might help people with arthritis to manage their symptoms. There is evidence that these foods will help people with inflammatory arthritis rather than osteoarthritis. It is important to bear in mind that each individual will react differently to specific foods.

**Apples** contain magnesium, which is thought to decrease the pain of fibromyalgia.

**Berries** (blueberries, blackberries, blackcurrants, cranberries, raspberries and strawberries) contain antioxidants that can reduce inflammation. They also contain fibre, folic acid, magnesium, potassium and vitamin C.

People taking methotrexate are often given folic acid supplements as methotrexate interferes with the action of folic acid in the body. Folic acid is needed to make new cells. So berries will be of benefit as well.

Try making a mixed berry smoothie – a filling and tasty drink – or add a handful of berries to your breakfast cereal. The vitamin C content of berries will mean that you increase the amount of iron you absorb from your cereal as well.

**Cherries** might have a role in decreasing inflammation and pain. They contain fibre, and vitamins A and C.

Try cherries mixed with plain yoghurt for a mid-morning snack.

**Citrus fruits** (oranges, lemons, limes, kiwis, grapefruit) are rich in vitamin C, which might help protect against developing inflammatory arthritis. They also contain fibre, folic acid, magnesium and

People tell me not to eat tomatoes, I think that's a load of rubbish



potassium. Grapefruit (or grapefruit juice) may interfere with the action of some disease-modifying anti-rheumatic drugs (such as ciclosporin) and some other medications, although your doctor should tell you about this risk if it is relevant to you. Having a glass of orange juice with meals will help the absorption of iron.



**Nuts** contain omega-3 fats, which help ease stiffness and reduce inflammation. Pecans, walnuts and hazelnuts are high in antioxidants. Brazil nuts are also high in selenium, which is thought to limit the damage that occurs in arthritis and is an immune system booster.

Carry a bag of unsalted nuts with you and snack on these instead of crisps and biscuits. Nuts are high in fat, so eat them in moderation.

**Cruciferous vegetables** (broccoli, cauliflower, cabbage and Brussels sprouts) are good for the heart.

People with rheumatoid arthritis are at increased risk of developing heart disease so eating sufficient quantities of these vegetables is important. This group of vegetables also contains fibre, folic acid, and vitamins A, C and K.

**What works for one person might not work for another – we are all different**

Fibre is important for healthy intestines. Some arthritis medications, such as NSAIDs and painkillers, can cause constipation. Eating more fibre will mean you are less likely to feel constipated.

Try serving broccoli with salmon for a tasty and healthy meal.

**Leafy green vegetables** (kale, mustard greens and Swiss chard) are a good choice as they contain calcium. These vegetables are iron rich, and are also good for the heart.

Toss some kale in a pan with a little rapeseed oil and garlic for a couple of minutes for an easy side dish.

**Milk, cheese and yoghurt** are high in calcium, which is important for healthy bones. Dairy products are also high in folic acid, magnesium, and vitamins.

Choose skimmed or low-fat versions of these products to avoid eating too many saturated fats, which could increase inflammation. **Oily fish** contains oils that help fight inflammation, joint pain and stiffness. See the section on omega-3 fats on page 10 for more information.

**Peas, beans and lentils** are a good source of iron, which is important in helping to prevent anaemia. These foods also contain fibre, folic acid and other minerals.

Try adding beans and pulses (mixed with a little rapeseed oil and some fresh herbs) to your salads to make them more interesting.

**Whole grains** (wholewheat and brown rice) contain magnesium, which is important for healthy bones. This group is also high in fibre.

## ■ Claims about foods

Although it might be helpful to eat certain foods in moderation if you have arthritis, there are lots of myths circulating for which there is little or no evidence. It is important not to exclude any foods

completely without consulting your doctor first as you may be missing out on essential nutrients. You should also bear in mind that everyone will react differently to various foods.

A popular myth is that cutting out acidic fruits (oranges, lemons and grapefruit) or vegetables such as potatoes, tomatoes, peppers and aubergines will reduce the symptoms of arthritis, but there is no satisfactory medical evidence to support this. In fact, these foods are nutrient rich and low in calories. Some people even go so far as to claim that eliminating these foods will cure arthritis. This is not true.

Another false claim that people make is that dairy products cause arthritis. Again, there is no evidence to support this.

Some people believe that cider vinegar and honey will help or cure arthritis. There is no scientific evidence to back this claim.

Red meat has been linked to the development of rheumatoid arthritis and heart disease. However, red meat contains iron,

**In the past when I ate oranges it really affected my joints. But now I can eat them**

magnesium, potassium and protein, so think carefully where else in your diet you will get these essential nutrients before deciding to exclude red meat. Choosing lean versions of red meat will limit your intake of inflammatory saturated fats.

If you have gout, there is evidence to suggest that alcohol, liver and kidney, tinned fish and shellfish can all worsen symptoms.

## ■ Food allergy and intolerance

Some people with inflammatory arthritis believe that they might be allergic to certain foods which cause their arthritis to flare. This could be the case, but many people also mistake food intolerance for food allergy.

A food allergy is a prompt reaction to food (even tiny amounts) by the immune system. Symptoms can include swelling of the lips, mouth and tongue, and a rash over the body.

If you have a less instantaneous reaction to food, which makes it harder to pin down the food that caused the reaction, this is likely to be a food intolerance. Symptoms

include nausea, bloating, diarrhoea, vomiting or skin rashes. The only scientific way of telling if you do have an intolerance to a food is by an elimination diet process.

**I've never really experienced food intolerance apart from rhubarb. If I eat it my joints become very painful**

## ■ Elimination and other special diets

An elimination diet involves excluding a certain food/foods from your diet for about a month, before re-introducing it/them to see if this causes a reaction. This may work for some people with inflammatory arthritis but it will not be effective for those with osteoarthritis.

These diets should only be undertaken after consultation with your doctor or a dietitian as it is important to ensure that you are not missing out on essential nutrients by excluding a particular food. You will usually be asked to keep a food diary for a couple of weeks, and

to classify your pain and symptoms on a scale to assess with your healthcare professional whether a particular food is having an effect on your arthritis.

Most people cut out foods such as wheat or dairy products. It is important to ensure that you cut out the particular food completely – this is sometimes difficult as many products contain hidden wheat or dairy (for example, sausages contain wheat).

Some people with arthritis say that fasting makes them feel better. However, fasting is not advised as, although it might make you feel better, you can only fast for a short period of time.

Others have found a vegan or vegetarian diet helpful, but if you exclude animal products from your diet it is important to ensure you get enough iron, protein, B and D vitamins elsewhere in your diet.



# SUPPLEMENTS

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A healthy diet should contain all the nutrients, vitamins, and minerals needed by the body. Supplements, as their name suggests, should only be used to supplement a healthy diet.

Many people choose to take supplements, but taking too much or taking them for too long could be harmful.

There is not much evidence that taking dietary supplements has a beneficial effect on people with arthritis, although the results for fish oil supplements are promising.

A huge range of supplements is available. Bear in mind that a lot of these remedies are expensive and their effectiveness is unproven. You should also remember that vitamin and mineral supplements do not have an instant effect – you may need to take them for several weeks before seeing a difference. Find out as much as you can about the supplements you want to take.

It is important to take supplements properly and follow the instructions on the label (many should be taken with or after food), or they might not work. Remember:

- take supplements with food to improve their uptake into your body
- do not take lots of different supplements without checking with a health professional because they can interact with each other and be less effective. For example, zinc interferes with how copper and iron are absorbed.

You should also bear the following in mind before taking supplements:

- check with your doctor or pharmacist for interaction with prescribed drugs
- tell your healthcare team about any supplements you are taking so that they are aware of all aspects of your treatment plan. Report any side effects to your doctor immediately
- keep a record of how you are feeling so you can try to gauge if the supplements are having an effect
- buy brands from large, reputable manufacturers so that you can

be more sure of consistency in the product. Be wary of buying from unknown internet suppliers

- consider the costs: taking supplements is a long-term commitment and can be expensive.

I take cod liver oil and omega-3 oils because they're good for health generally

Below is an in-depth look at some of the most popular supplements. You do not need to take all of these supplements, or even one of them, unless directed by your doctor. If you are unsure, consult your doctor or a dietitian.

The recommended daily allowance (RDA) is the average daily amount of nutrient required to maintain good health. As mentioned above, some people with certain forms of arthritis will need an extra boost (of folic acid if you are taking methotrexate, for example) but you should always consult a doctor before taking more than the RDA, as it can be dangerous to overdose.

## ■ Supplements taken by people with arthritis

**Aloe vera** – Aloe is known to soothe and reduce inflammation and is commonly used externally as a gel. It is also marketed for internal use – usually as a drink – for some conditions such as rheumatoid arthritis. Studies on animals into its effectiveness in reducing inflammation are promising, but not enough research has been done into its safety. Taking aloe internally might alter the effects of prescribed drugs, including steroids, so check with your doctor before taking it.

**Bromelain** – Bromelain, also known as *Ananas Comosus*, is a mixture of protein-digesting enzymes taken from the stem of pineapples. It is claimed that it can reduce inflammation and inhibit swelling and pain. However, there is no conclusive evidence to support this.



If you are taking antibiotics or blood-thinning medication, such as aspirin or warfarin, you must consult your doctor before taking bromelain as the combination may cause bleeding.

**Calcium** – Calcium, a mineral found in our bodies, is essential for a wide range of things including the construction and repair of bones and teeth. It also keeps them hard. It is found in many foods (see pages 18-19), but only about a third of dietary calcium is absorbed. Older people do not absorb calcium very well and usually benefit from taking calcium supplements enriched with vitamin D. These may be available on prescription from your doctor. Calcium supplements should not be taken by people with kidney problems without medical advice. All people with arthritis should check their dose with their doctor.

**Chillies** – Capsaicin, or cayenne, is a red pepper made up from ground chillies. It is usually applied externally as a cream to gain temporary relief from the pain of osteoarthritis and rheumatoid arthritis. Chillies are thought to block pain by interfering with pain signals. You should not apply the cream to broken or irritated skin and make sure you wash your hands after applying it as it can sting your eyes if you touch them. It is available on prescription.



**Chondroitin sulphate** – Chondroitin sulphate exists naturally in your body and is thought to give cartilage elasticity and to slow its breakdown. In supplement form, it is derived from the cartilage of cattle or fish sources (which might cause a reaction if you have a fish allergy). It is often taken alongside glucosamine to relieve the symptoms of osteoarthritis. The latest research suggests that chondroitin is not effective.

Chondroitin is a slow-acting supplement, but if you have not seen any improvement after two months it probably will not help you,

particularly if you have severe cartilage loss. There do not appear to be any serious side effects, but minor ones include occasional nausea and indigestion. It could increase your chances of bleeding if you are taking any blood-thinning drugs. The long-term effects of taking chondroitin are not known.

**CMO** – CMO (cetyl myristoleate) is advertised as a cure for almost every kind of arthritis. No research has been published to show that CMO is either safe or effective. It is made from beef tallow. Celadrin is a form of advanced CMO for which there is also no satisfactory evidence.

The main concerns about CMO stem from a sales pitch that advises customers to stop taking prescribed medication, including methotrexate and steroids, as they interfere with CMO activity. Always consult your doctor before stopping any medication, especially steroids.

**Devil's claw** – Devil's claw is derived from an African desert plant of the same name. Evidence suggests it has anti-inflammatory effects, but it is not known how it works. As it is a relatively new remedy to people outside Africa, it should be used with caution. Beware of using supplements bought abroad as they may contain other compounds. It shouldn't be taken if you are pregnant or breastfeeding. It has a blood-thinning effect, so you must consult your doctor before taking it if you are on blood-thinning drugs such as aspirin or warfarin.

**Evening primrose oil** – Evening primrose oil (EPO) contains the fatty acid gamma linolenic acid (GLA). Several studies have shown that GLA supplements can relieve inflammation and rheumatoid arthritis. EPO needs to be taken for three to six months to give full benefit and the effect is lost when EPO is stopped. It may also be of value when taken with fish oils.

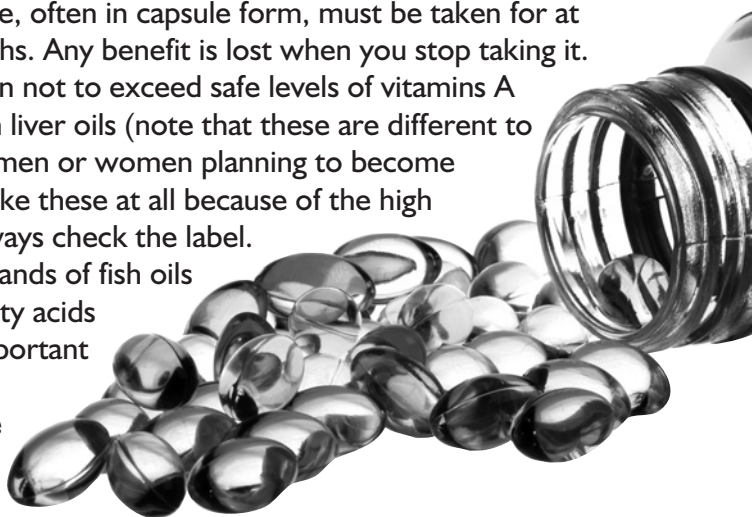
**Fish oils** – Fish oils (rich in omega-3 fatty acids) can produce a mild

improvement in joint pain and stiffness and have a good record for easing the symptoms of osteoarthritis, rheumatoid arthritis and Raynaud's syndrome. Research has found that omega-3 fatty acids are effective because they reduce some of the pain and inflammation of arthritis. A daily dose, often in capsule form, must be taken for at least three to six months. Any benefit is lost when you stop taking it.

Care should be taken not to exceed safe levels of vitamins A and D when taking fish liver oils (note that these are different to fish oils). Pregnant women or women planning to become pregnant should not take these at all because of the high vitamin A content. Always check the label.

You should select brands of fish oils high in the essential fatty acids EPA and DHA. It is important not to take more of a weaker brand to make up the amount of EPAs required, as this could lead to an overdose of other nutrients. If you are unsure seek advice from doctor or a dietitian (see page 33).

People taking high-dose supplements should check with their doctor first, particularly if they are taking blood thinning medication such as aspirin or warfarin. Studies need to be carried out into the possible long-term toxicity of taking fish oils.



**It's difficult to say what benefit cod liver oil has as I don't know what I would be like without it but I feel like I'm doing something to help**

**Folic acid** – This is also known as folate or vitamin B9. You will generally be prescribed folic acid by your doctor if you are taking methotrexate. This is because methotrexate interferes with the action of folic acid in your body. We need folic acid to make new cells.

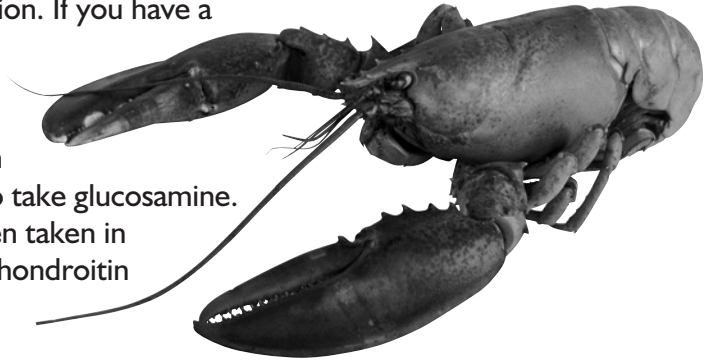
**Glucosamine** – Glucosamine is made in the body and is used to build and repair cartilage. It is popular with people with osteoarthritis.

Glucosamine is a natural substance extracted from crab, lobster or prawn shells. The latest research suggests that glucosamine does not reduce joint pain. If you have not seen any improvement after two months it probably will not help you.

There are no known serious side effects, but lesser ones include nausea and indigestion. If you have a shellfish allergy,

check the label and take the manufacturer's advice on whether it is safe to take glucosamine. Glucosamine is often taken in combination with chondroitin (see page 27).

Glucosamine can interfere with the measurement of blood sugar when using glucometers of the type commonly used by people with diabetes to monitor their sugar levels.



**Green-lipped mussel extract** – This contains omega-3 fatty acids. Current research suggests that green-lipped mussel extract might be helpful for people with osteoarthritis. However, the evidence is not conclusive.

**Iron** – Iron levels may be low in people taking NSAIDs as these can lead to blood loss from the gut in some people. However, anaemia in rheumatoid arthritis does not always respond to iron supplements, so you should talk to your doctor before taking iron. A common side effect of taking iron supplements is constipation. You should not have more than 17mg of iron each day.

**Magnesium** – Magnesium is needed to maintain healthy bones. Supplements of this mineral have been shown to significantly improve

pain and fatigue. Magnesium is found in nuts, apples, grains, green leafy vegetables and whole foods, but people who eat mainly processed foods may not be getting enough. Check with your doctor before taking magnesium as it can interact with other drugs and it can be toxic if taken in very high doses. Magnesium makes antibiotics less effective.

**MSM** – MSM (methyl sulfonyl methane) is touted as a cure for arthritis. There is no scientific evidence to back this claim or any research to show that it is safe. MSM is a sulphur compound. It should not be used with anything that thins blood.

**St John's wort** – This is a popular herbal remedy. It comes from a flower and appears to act as an antidepressant by raising serotonin levels which are low in people who are depressed and those who have fibromyalgia. Studies show that it can relieve mild depression. It must be taken for a number of weeks to feel an effect. It should not be taken with other antidepressants or alcohol. This herb may decrease the effectiveness of contraceptive drugs, and so should not be taken at the same time. It should not be taken when pregnant or breastfeeding. Recent research has suggested that St John's wort can reduce the effectiveness of some medication prescribed to people with arthritis, such as ciclosporin. If you are taking prescribed medication you should consult your doctor before taking St John's wort. People with lupus should avoid it as it can increase sensitivity to sunlight. St John's wort usually comes in tablet form.

**Selenium** – Selenium is an essential mineral that is known to be low in people with inflammatory conditions such as rheumatoid arthritis. It helps limit the harmful effects of inflammation. The body does not need high levels



of selenium (if you eat meat, fish or nuts you should be able to get all the selenium you need from your diet) and it can be toxic in high doses.

Selenium is found in a number of multivitamins, so care should be taken not to exceed doses of 0.35mg per day.

**Zinc sulphate** – Zinc levels are often low in people with rheumatoid arthritis and some studies have found that joint swelling and morning stiffness are reduced when taking zinc.

Check with a doctor before taking zinc supplements as many people are getting enough already in their diet (from meat, shellfish, milk and dairy products). No more than 25mg should be taken on a daily basis without medical supervision.

## OTHER SOURCES OF HELP

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It is important to discuss any major dietary changes with your doctor as you could end up aggravating your symptoms. If you require specialist help, you can ask to be referred to a dietitian or nutritionist.

### Dietitians and nutritionists

Dietitians are experts in diet and nutrition and can help people make informed choices about food and lifestyle, including giving advice in relation to their medical condition.

The title dietitian can only be used by appropriately trained professionals who have registered with the Health Professions Council – see [www.hpc-uk.org](http://www.hpc-uk.org). You can contact a registered dietitian through your local hospital or GP surgery (some of which have a dietitian on site) or you can self refer. If you wish to see a registered dietitian privately you can search online at [www.dietitiansunlimited.co.uk](http://www.dietitiansunlimited.co.uk)

A nutritionist is an expert on the relationships between diet, food and ill health. Nutritionists can advise on ways of giving the body the nutrition it needs.



The title nutritionist is not currently regulated in the UK which means that there are no laws regarding what training someone needs to call themselves a nutritionist. However, there are professional bodies that nutritionists can join if they meet certain requirements. For more information and to search for a nutritionist in your local area visit [www.nutritionist-resource.org.uk](http://www.nutritionist-resource.org.uk)

## Visiting a dietitian

You may be referred to a dietitian if you have a specific food allergy or if there are concerns about your weight.

During the consultation you will be asked about what you usually eat, as well as any medications and supplements you are taking.

A dietitian can help you recognise which dietary advice is well established, and which is experimental, so that you have an objective view of any dietary changes you wish to try.

**The dietitian gave me advice on what to eat and what to avoid, and helped me to make some positive changes**

## Weight loss groups

As well as following advice from a doctor or dietitian, some people find it useful to join a slimming group. These groups provide a supportive environment in which you can learn new weight loss strategies.

You have to pay to attend the groups and they can be found across the UK. Search for your local groups online – Weight Watchers ([www.weightwatchers.co.uk](http://www.weightwatchers.co.uk)), Slimming World ([www.slimming-world.com](http://www.slimming-world.com)) and Rosemary Conley Diet ([www.rosemary-conley.co.uk](http://www.rosemary-conley.co.uk)).

**Our booklets are reviewed every 12-18 months. Please check our website for the latest version and reference sources or call 020 7380 6577.**

## THE LAST WORD

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There are many advantages to following a healthy diet. As well as experiencing an improvement in general health, many people with arthritis who eat a balanced diet find that their symptoms are reduced. Eating healthily does not have to be difficult – once you are better informed, it is often a matter of thinking about food in a new way.

It is also important to keep a healthy perspective and not get too stressed out about dietary choices or the occasional indulgence.

If you apply the healthy options described in this booklet as often as possible and enjoy your food, then you are on the right track.



## USEFUL ORGANISATIONS

### ● Arthritis Care

[www.arthritiscare.org.uk](http://www.arthritiscare.org.uk)

#### **UK office:**

Tel: 020 7380 6540

#### **South England office:**

Tel: 0844 888 2111

#### **Central England office:**

Tel: 0115 952 5522

#### **North England office:**

Tel: 01924 882150

#### **Northern Ireland office:**

Tel: 028 9078 2940

#### **Scotland office:**

Tel: 0141 954 7776

#### **Wales office:**

Tel: 029 2044 4155

### ● Arthritis Research UK

Tel: 0300 790 0400

[www.arthritisresearchuk.org](http://www.arthritisresearchuk.org)

Funds medical research into arthritis and produces information.

### ● NHS Choices

For links to NHS services in your area and information. Call NHS Direct on 0845 4647 and NHS 24 in Scotland on 08454 242424.  
[www.nhs.uk](http://www.nhs.uk)

### ● Food Standards Agency

Helpline: 020 7276 8829

(Mon-Fri: 9am-5pm)

[www.eatwell.gov.uk](http://www.eatwell.gov.uk)

Independent government agency, provides information on recommended daily allowances of foods and healthy eating. In the future content on this site will move to NHS Choices.

### ● The British Dietetic Association

Tel: 0121 200 8080 (8.45am - 4.30pm)

[www.bda.uk.com](http://www.bda.uk.com)

Professional association for dietitians, also provides a lot of consumer focused information on healthy eating, including a range of factsheets.

### ● British Heart Foundation

Information line (can advise on healthy eating): 0300 330 3311

(Mon-Fri: 9am-6pm).

[www.bhf.org.uk](http://www.bhf.org.uk)

Information line provides information and advice about healthy eating.

### ● beating eating disorders (beat)

Adult helpline (18yrs+) 0845 634

1414 (Mon-Fri: 10.30am-8.30pm,

Sat: 1pm-4.30pm)

Youthline (up to and including 25

years of age) 0845 6347650

(Mon-Fri: 4.30pm-8.30pm,

Sat: 1pm-4.30pm)

[www.b-eat.co.uk](http://www.b-eat.co.uk)

Provides advice and support for people with various eating disorders, from binge eating to anorexia.

# **ARTHRITIS CARE**

**Arthritis Care exists to support people with arthritis. We are the UK's largest charity working with and for all people who have arthritis. We offer support wherever you live in the UK.**

It costs us £1.10 to provide you with this booklet. If you are able to access information online, you'll help us save money and the environment.

Get involved with us today if you can.

- Make a donation.
- Leave a legacy in your Will.
- Join as a member.
- Become a volunteer.
- Support us in your local area.
- Take part in events.
- Campaign on our behalf.
- Find out about our self-management training and support.
- Join our online discussion forum.
- Visit our website.
- Ring our confidential helpline.
- Join a local support group.

We exist for everyone with arthritis, but we rely on the support of people like you. If you would like to make a contribution to our work, please phone us on 020 7380 6540. Or you can donate online.

**[www.arthritiscare.org.uk](http://www.arthritiscare.org.uk)**



ARTHRITIS CARE

*Empowering  
people with arthritis.*

**To find out more about  
arthritis and Arthritis Care**

**Freephone our confidential helpline**

**0808 800 4050**

**(weekdays 10am-4pm)**

**Visit our website**

**[www.arthritiscare.org.uk](http://www.arthritiscare.org.uk)**

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