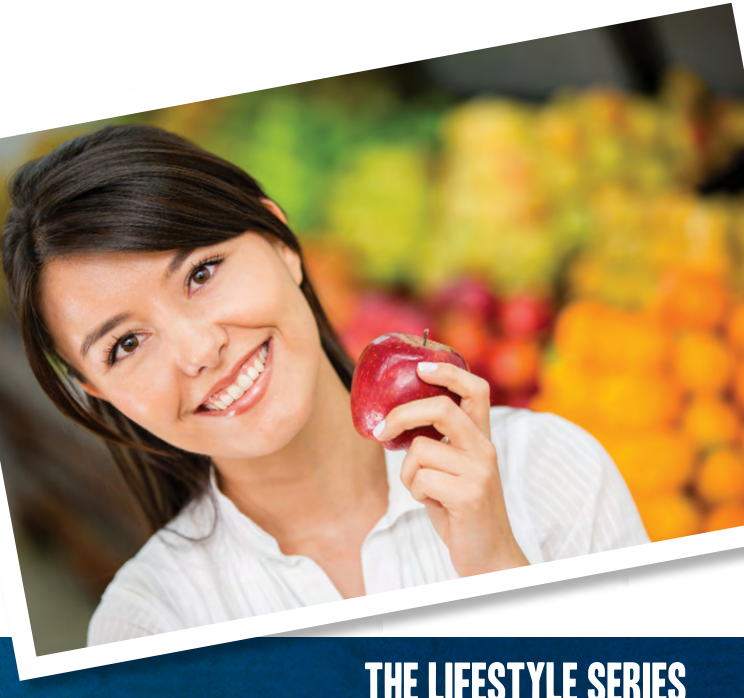
The Arthritis Society

NUTRITION AND ARTHRITIS



THE LIFESTYLE SERIES

arthritis.ca

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Introduction

Although a specific diet cannot cure arthritis, some people have found that symptoms can improve through dietary changes. There are more than 100 types of arthritis so it's important to remember that what might work for one person may not work for another. For instance, people living with gout may reduce painful inflammation, also known as a "flare," by not consuming large amounts of foods that increase uric acid levels (e.g., red meat and alcohol) and avoiding organ meats, while individuals with rheumatoid arthritis (RA) seem to benefit from eating more omega-3 fats (e.g., found in sardines and salmon).

The most important link between your diet and arthritis is your weight. Developing a healthy lifestyle that includes eating nutritious, well-balanced meals and being physically active will help to provide you with the energy you need to complete your daily activities and manage your arthritis.

Although a specific diet cannot cure arthritis, some people have found that symptoms can improve through dietary changes.

And remember: while a healthy diet is important, you should not stop or change your medical treatment without discussing your plan with your health-care team first. While some people turn to nutritional supplements, often the same results can be achieved through simply maintaining a healthy diet. It is also

important to consider whether your regular diet is giving you all the important basic nutrients. If it does not, then your general health will suffer and this may have an effect on your arthritis. Ask your doctor to refer you to a registered dietitian.

What is arthritis?

The word *arthritis* means inflammation of the joint ("artho" meaning joint and "itis" meaning inflammation). Inflammation is a medical term describing pain, stiffness, redness and swelling. Arthritis is a disease that can involve any of the joints in the body, often occurring in the hip, knee, spine or other weight-bearing joints, but can also affect the fingers and other non-weight-bearing joints. Symptoms of arthritis include joint pain, swelling, stiffness and fatigue. Untreated inflammation can eventually lead to joint damage, destruction and disability. Some forms of arthritis can also affect the body's internal organs.

The Importance of a Healthy Diet

While there is no definitive anti-arthritis diet, research suggests that certain foods and supplements may help relieve the pain and other symptoms of arthritis. The effects are fairly specific to different types of arthritis, which is why it is important to know what type of arthritis you have.

How can I eat healthy for a healthy body?

Depending on your type of arthritis, being overweight may make your arthritis symptoms worse or harder to manage (e.g., osteoarthritis, rheumatoid arthritis, gout). On the other hand, being underweight may also worsen symptoms (e.g., rheumatoid arthritis) so you may be trying to gain weight.

If you need to lose weight, make lasting changes to the way you eat and exercise. This could mean choosing lower calorie foods, eating smaller portions and being more active. (For more information on physical activity, see page 18).

To work normally, your body needs food to supply energy, vitamins and minerals. If your diet contains more energy (calories) than you burn, your body will convert the extra energy to fat and you will gain weight. On the other hand, if your diet contains less energy than you are using, you will lose weight. You may have found that keeping active is not as easy as it once was because of your arthritis. There are ways to include activity in your routine without having negative effects on your arthritis. A physiotherapist or occupational therapist can assist you. If your activity level has decreased, it may mean that you need less energy and should eat fewer calories while still maintaining your

intake of essential nutrients. If you are going to eat fewer calories, it is important not to lose out on the vitamins, minerals and other key nutrients that are important for individuals with arthritis. A registered dietitian can help you. Choosing nutrient-rich foods, such as vegetables, fruits, whole grains, healthy dairy products and lean sources of protein will help maximize the nutrients and minimize the extra calories.

Can healthy eating help if I am taking medication?

Yes. A healthy diet still helps even if you are taking medication for your arthritis. In fact, there is even more reason to eat a nutritious diet as it can help to protect the body against some of the side effects of drugs and to avoid potential drug-nutrient interactions. Many arthritis medications have an anti-nutrient effect that can create problems with digestion or absorption of various nutrients from the foods that are eaten. (For more information on medication, see *Arthritis Medications: A Reference Guide*).

Ask your pharmacist and registered dietitian about any possible interactions between your medications and your diet. Some of the changes recommended – achieving a healthy weight, eating a balanced diet, perhaps excluding some foods or nutrients and increasing others, can possibly help to reduce the amount of medication you need or reduce medication side effects. Speak to your doctor before reducing any amount of prescribed medication.

What to Eat

Vegetables and fruit

Vegetables and fruit should make up the largest part of your diet. Try to have at least one vegetable or fruit at every meal and as a snack. Besides being an excellent source of energy, vegetables and fruit boost your fibre intake, which, in addition to whole grains, are filling and help control how much you eat.

Things to consider when you are picking your vegetables and fruits:

- Eat at least one dark green (broccoli, romaine lettuce, and spinach) and one orange (carrots, sweet potatoes, and winter squash) vegetable each day.
- Choose vegetables and fruit prepared with little or no added fat, sugar or salt.
- Enjoy vegetables steamed, baked or stir-fried instead of boiled.
- Select brightly coloured fresh or frozen vegetables and fruit like cherries, blueberries, apples, oranges, mangoes, avocados, peppers, spinach, tomatoes, sweet potatoes, beets and broccoli.

Health Canada recommends that adults eat at least seven servings of both vegetables and fruit every day. This is to make sure that the body gets the vitamins, minerals and other dietary factors it needs to maintain good health and to protect it from the stress of disease.

What is one serving of vegetables and fruit?

- 1 medium fresh vegetable or fruit
- 125 mL (½ cup) frozen or cooked vegetables
- 125 mL (½ cup) frozen or canned fruit pieces
- 50 mL (¼ cup) dried fruit
- 1 large carrot or celery stalk
- 250 mL (1 cup) raw, sliced fruit (grapes, melon) or vegetables (carrots, broccoli, mushrooms, cauliflower)
- 250 mL (1 cup) raw lettuce, spinach or other greens
- 125 mL (½ cup) cooked greens
- 125 mL (½ cup) vegetable juice

(Source: Eating Well with Canada's Food Guide www.healthcanada.gc.ca/foodguide)

Are specific diets recommended for rheumatoid arthritis?

The effects of vegetarian diets for individuals with rheumatoid arthritis (RA) are uncertain. A Mediterranean diet may improve some symptoms of RA and may also have heart health benefits. In general, a Mediterranean diet is high in vegetables, fruits, cereals, legumes, fish and olive oil and is low in red meat. A registered dietitian can help you transition to this diet.

Healthy fats

The type and amount of fat you eat is important. You need some fat in your diet, but too much can be bad for your health. Fat is high in calories, and some types of fat (saturated and trans fats) may increase risk of developing factors that may lead to heart disease.

Polyunsaturated and monounsaturated fats are recommended as the main source of fat in your diet. Monounsaturated fat is found naturally in olive and canola oil, avocadoes and nuts like almonds, pistachios and cashews. Polyunsaturated fats include omega-3

and/or omega-6 fatty acids and can be found in cold-water fish (e.g., char, mackerel, salmon and trout), walnuts, sunflower seeds and flax seeds. Fats that should be limited include trans fats, which are found in fried and processed foods, and saturated fats, which mainly come from animal sources of food, such as red meat, poultry and full-fat dairy products.

Quick guidelines to help you eat less fat:

- Fill up on vegetables, fruits and whole grain bread and cereals.
- Bake, broil and grill instead of frying foods.
- Choose healthier dairy products (e.g., skim, 1% or 2% milk, low-fat yogurt and less than 20 per cent milk fat (M.F.) for cheese).
- Choose lean cuts of meat. Trim visible fat and remove poultry skin before cooking.
- Use oils and soft-tub margarines sparingly.
- To help reduce the amount of "hidden fats":
  - Instead of eating store-bought pies, cookies and pastries, make a fruit crumble or bake an apple.
  - Replace a breakfast of bacon and eggs with whole grain toast topped with nut butter.
  - Make your own salad dressing with canola or olive oil. Add balsamic, rice wine or other vinegars. Flavour with lemon juice, dry or Dijon mustard, garlic and herbs.
- When dining out, ask for gravy, sauces and salad dressings "on the side." Use only small amounts.

NOTE: To learn more about fats and how to adjust your recipes, speak to a registered dietitian.

Protein

Daily protein is important for a healthy immune system, repairing cells like those in your muscles, skin and nails, keeping blood glucose (sugar) steady and in turn keeping cravings at bay (which can reduce overeating). Select lean protein sources, such as chicken, seafood (but limit if you have gout), beans, peas, nuts and seeds.

Vitamins and supplements

Research has shown that some vitamins and supplements can help improve arthritis symptoms, however, the effects are often specific to the type of arthritis you have. It is also important to consult your doctor if you decide to take dietary supplements as they may interact with medications or may contain ingredients not listed on the label.

Omega-3

Omega-3 polyunsaturated fatty acids, mainly as found in cold water fish (e.g., salmon and trout) and the oil produced from them, can be helpful for inflammatory arthritis. This includes rheumatoid arthritis, reactive arthritis, psoriatic arthritis, systemic lupus erythematosus and ankylosing spondylitis. While gout is also a form of inflammatory arthritis, fish should generally be consumed in moderation because of its high purine content.

Also, be aware that omega-3 fatty supplements can interact with medication you may be taking for arthritis or other conditions, such as high blood pressure. For instance, it can increase the risk of bleeding, especially in people who take aspirin. Therefore, it is best to consult your doctor or pharmacist before taking omega-3 supplements.

Simple steps to increase your dietary intake of omega-3 fats:

- Eat fish, such as char, mackerel, sardines, herring, salmon or rainbow trout, at least twice a week.
- Lightly top your salads and steamed vegetables with uncooked flaxseed oil.

- Sprinkle ground flaxseeds or chopped walnuts on yogurt or cereal.
- Snack on a small handful of walnuts.
- Use a soft, non-hydrogenated margarine made from canola oil for spreading, cooking and baking.
- Use cooking oils that are rich in alpha-linolenic acid (ALA), such as canola and soy oil.
- Choose omega-3 enriched products, such as margarine, milk, yogurt and eggs.

Vitamin D

Vitamin D is needed for the body to absorb calcium, and there is some evidence that arthritis (both osteoarthritis and inflammatory types) can worsen in people who have low levels of vitamin D in their bodies. Vitamin D is produced by the body when skin is exposed to sunlight. Most Canadians don't get enough vitamin D from sunlight because of working indoors, wearing longer clothing and using sunscreen, so it is important to get it from your diet or a vitamin supplement.

Milk is the main source of dietary vitamin D, fortified with 100 IU ("international units") for every 250 ml. In addition, many foods contain some vitamin D, including margarine, eggs, liver, and a variety of fish led by salmon, sardines, and mackerel. Many grocery store items are also "fortified" with vitamin D now, such as orange juice. Still, in winter months where you may not be in the sun regularly, you may wish to consider a vitamin D supplement as it is a very important nutrient on many levels. Most multivitamins provide 200–400 IU of vitamin D. Some calcium supplements also contain vitamin D. Adults older than 50 may benefit from taking a supplement (e.g., vitamin D3) containing 400 IU of vitamin D all year round. Individuals with arthritis should consult their doctor or

registered dietitian about a suitable dose of vitamin D supplements.

Calcium

Calcium is an essential basic nutrient that is important for healthy bones and the prevention of osteoporosis (brittle bones). Post-menopausal women and individuals with arthritis are at risk for developing osteoporosis.

The best sources of calcium are low-fat (skim, 1%, 2%) milk, cheese, yogurt and types of fish that are eaten with the bones (i.e. canned salmon or sardines). In fact, low-fat milk varieties have the same amount of calcium as homogenized milk, but spare you the extra calories. Two servings of milk (500 mL or two cups) per day, combined with other calcium-rich foods should be enough to meet your needs.

If you do not consume a lot of milk or milk alternatives, you may need a calcium supplement. Discuss this with a registered dietitian or your doctor.

Folic acid

For people taking methotrexate, supplementation with folic acid may help prevent medication-related side-effects (e.g. liver abnormalities and gastrointestinal intolerances). Discuss this with a registered dietitian or your doctor.

Glucosamine sulphate and chondroitin

Many people with osteoarthritis try glucosamine sulphate and chondroitin supplements (bought at health food stores, some grocery stores and pharmacies). The reason behind their use is that joint cartilage normally

contains glucosamine and chondroitin compounds and taking supplements may help improve the health of cartilage damaged by osteoarthritis. While these products have been shown to decrease inflammation in animals, human research is lacking, so they are not currently licensed for use as drugs for osteoarthritis. Glucosamine sulphate and chondroitin in Canada are referred to as "natural health products" (supplements).

Iron

Many people with arthritis are anemic (a condition in which you don't have enough healthy red blood cells to carry adequate oxygen to your tissues). The anemia can be due to many different causes. NSAIDs (non-steroidal anti-inflammatory drugs) such as aspirin, ibuprofen and diclofenac can help the pain and stiffness of arthritis, but may cause bleeding and stomach ulcers in some people, leading to anemia. A common occurrence with inflammatory types of arthritis is anemia of chronic disease; this does not improve with iron supplements.

If you are anemic your doctor can tell you if more iron is likely to help. Besides iron supplements, the best source of iron that can be absorbed by your body is found in red meat and other animal products. This is called heme iron. If you have chosen to reduce your intake of red meat, it is important that you obtain iron from other sources (e.g., fish, eggs and fortified foods).

Non-heme or plant-based sources of iron are better absorbed if there is also vitamin C in the meal. Having citrus fruit or their juices or a green salad, red, yellow or orange bell peppers and tomatoes with your meal will enhance the absorption of iron. Drinking tea reduces the amount of iron that your body can absorb so it is a good idea to drink tea in between your meals.

Herbal therapies

Due to the wide variety of herbal supplements available and possible serious side effects, speak to a registered dietitian or your doctor before taking any herbal products.

What to Limit or Avoid

Canada's Food Guide recommends limiting foods and beverages high in calories, fat, sugar or salt (sodium). These include cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks and sweetened hot or cold drinks.

To choose healthier food and beverages, start by reading and comparing the "Nutrition Facts" table found on pre-packaged food and beverages. Look for products that contain less fat, saturated fat, trans fat, sugar and sodium. Keep in mind that the calories and nutrients listed are for the amount of food listed at the top of the table (generally not for the full product).

Overall, try to limit or avoid the following ingredients in your diet:

Sugar

Sugar added to foods contributes calories, but few other nutritional benefits. This refers to white, brown, cane and raw sugar as well as syrup and honey. Use dried fruits like raisins or dates to sweeten food since they provide vitamins, minerals and fibre. Although artificial sweeteners contain few calories, it is best to get used to food being less sweet. Try to avoid sugary drinks (as listed above). Also watch out for "hidden" sugar, such as glucose, sucrose and high-fructose corn syrup, which can be found in products like cereal, jams, jellies, relish, ketchup and salad dressings.

Salt or sodium

Sodium is an essential nutrient found in salt and many other foods. Generally, high amounts of sodium are found in processed foods (e.g., lunch and deli meats, frozen meals, packaged baked goods, pre-packaged and canned soup, pickles, salty snack foods, gravies and other sauces).

Though our bodies require a small amount to be healthy, on average, Canadians eat too much sodium, which poses a major risk factor for stroke, heart disease and kidney disease.

Saturated and trans fats

Saturated fat is a type of fat found in food; it can raise your "bad" cholesterol levels and may increase your risk for heart disease. Saturated fat is found in many foods, including animal foods (e.g., beef, chicken, lamb, pork and veal), coconut, palm and palm kernel oils, dairy products (e.g., butter, cheese and whole milk), lard and shortening.

Trans fat is made from a chemical process that turns liquid oil into a solid fat. Like saturated fat, trans fat can raise "bad" cholesterol levels and increase your risk for heart disease. Typically, trans fat can be found in hard margarines, commercially fried foods, bakery products made with shortening, margarine or oils containing partially hydrogenated oils and fats, including cakes, cookies, crackers, croissants, doughnuts, fried and breaded foods, muffins and pastries.

Should I alter my diet if I have gout?

Gout is a very painful type of inflammatory arthritis that is caused by the crystallization of uric acid in the joints, causing inflammation. Uric acid is produced from purines, which can be found naturally in certain foods and in the human body. The build-up of uric acid is mostly due to the kidneys excreting too little uric acid, but may also be caused by the body producing too much or by consuming too many dietary purines.

Certain medical drugs, such as diuretics (water tablets), used to treat heart disease or high blood pressure can also contribute to the risks of gout. Your doctor may alter your medications to avoid gout flares. Some dietary and lifestyle factors can increase uric acid levels and contribute to the development of gout.

If you are overweight you have an increased risk of having gout; achieving a healthy weight can decrease the risk of gout. Eating a well balanced diet and getting

regular physical activity are healthy ways that can decrease your risk of gout and getting flares.

Alcohol consumption plays a role in triggering gout flares because alcohol has a dehydrating effect, limiting the clearing of uric acid from the kidneys. In addition, beer acts as a source of purines, which can increase uric acid levels.

Eating purine-rich foods (organ and red meat, seafood) and drinking alcohol, including beer, can trigger a gout flare in some people. If these are triggers to flaring your gout, it would be best to limit or avoid them.

Purine content of food

If you have gout, limit or avoid eating excess amounts of foods high in purine, such as meat and seafood. Avoid organ meats (e.g., liver, kidney and sweetbreads) because they are very high in purines.

Foods low in purine include vegetables, legumes (beans and peas), cereal and cereal products, dairy products, soybean products and eggs. Note: uric acid levels are not affected by so-called “acidic food” like oranges or tomatoes so you can eat these safely.

What about food sensitivities and allergies?

If you think you are allergic, intolerant or sensitive to different foods it is important to speak with your doctor or a registered dietitian before you alter your diet.

Fasting for rheumatoid arthritis

Fasting is not recommended for rheumatoid arthritis as more research is needed. In addition, fasting can be difficult to do, may affect how your body uses medications and may not provide the nutrients you need to stay healthy.

Weight and Arthritis

Why is my weight so important?

A healthy body helps you to feel good and have energy for doing daily activities. Excess weight puts an extra burden on your load-bearing joints (back, hips, knees, ankles and feet) when they are already damaged or under strain. Because of the way joints work, the pressure in your knee joints is more than your body weight when you walk. If you are overweight and have arthritis in any of your weight-bearing joints, or you have gout, losing weight, even if just a small amount, will make a big difference on your joints and uric acid levels and will help you more than any food or supplement.

In general, the body mass index (BMI) and the waist circumference (WC) are used to assess the risk of developing health problems associated with being overweight or underweight for most adults age 18 to 65 years with the exception of pregnant and lactating women.

Waist circumference (WC) determines the amount of body fat an individual is carrying around the core of their body, where it is most undesirable from a health risk perspective.

- Women should have a WC less than 88 cm (35 inches).
- Men should have a WC less than 102 cm (40 inches).

Body Mass Index (BMI) is a ratio of weight-to-height. Research studies have shown that BMI can be classified into ranges associated with health risk. There are four categories of BMI ranges. These are:

- Underweight (BMI less than 18.5);
- Normal weight (BMIs 18.5 to 24.9);
- Overweight (BMIs 25 to 29.9); and
- Obese (BMI 30 and over).

Body Mass Index

Underweight | Normal Weight | Overweight | Obese

Height (ft/in)	Height (cm)	44	46	49	52	54	57	60	63	65	68	71	73	76	79	82	84	87	90	93	95	98	101	103	106	109	112	114	117
	Weight (lbs): →	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258
4'8"	142.5	21.5	22.9	24.2	25.6	26.9	28.2	29.6	30.9	32.3	33.6	35.0	36.3	37.7	39.0	40.4	41.7	43.0	44.4	45.7	47.1	48.4	49.8	51.1	52.5	53.8	55.1	56.5	57.8
4'9"	145	20.8	22.1	23.4	24.7	26.0	27.3	28.6	29.9	31.2	32.5	33.8	35.1	36.4	37.6	38.9	40.2	41.5	42.8	44.1	45.4	46.7	48.0	49.3	50.6	51.9	53.2	54.5	55.8
4'10"	147.5	20.1	21.3	22.6	23.8	25.1	26.3	27.6	28.8	30.1	31.3	32.6	33.9	35.1	36.4	37.6	38.9	40.1	41.4	42.6	43.9	45.1	46.4	47.6	48.9	50.2	51.4	52.7	53.9
4'11"	150	19.4	20.6	21.8	23.0	24.2	25.4	26.7	27.9	29.1	30.3	31.5	32.7	33.9	35.1	36.4	37.6	38.8	40.0	41.2	42.4	43.6	44.8	46.0	47.3	48.5	49.7	50.9	52.1
5'0'	152.5	18.7	19.9	21.1	22.3	23.4	24.6	25.8	26.9	28.1	29.3	30.5	31.6	32.8	34.0	35.2	36.3	37.5	38.7	39.8	41.0	42.2	43.4	44.5	45.7	46.9	48.0	49.2	50.4
5'1'	155	18.1	19.3	20.4	21.5	22.7	23.8	24.9	26.1	27.2	28.3	29.5	30.6	31.7	32.9	34.0	35.1	36.3	37.4	38.5	39.7	40.8	41.9	43.1	44.2	45.3	46.5	47.6	48.7
5'2'	157.5	17.6	18.7	19.8	20.8	21.9	23.0	24.1	25.2	26.3	27.4	28.5	29.6	30.7	31.8	32.9	34.0	35.1	36.2	37.3	38.4	39.5	40.6	41.7	42.8	43.9	45.0	46.1	47.2
5'3'	160	17.0	18.1	19.1	20.2	21.3	22.3	23.4	24.4	25.5	26.6	27.6	28.7	29.8	30.8	31.9	32.9	34.0	35.1	36.1	37.2	38.3	39.3	40.4	41.4	42.5	43.6	44.6	45.7
5'4'	162.5	16.5	17.5	18.5	19.6	20.6	21.6	22.7	23.7	24.7	25.7	26.8	27.8	28.8	29.9	30.9	31.9	33.0	34.0	35.0	36.0	37.1	38.1	39.1	40.2	41.2	42.2	43.3	44.3
5'5'	165	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	30.9	31.9	32.9	33.9	34.9	35.9	36.9	37.9	38.9	39.9	40.9	41.9	42.9

Height (ft/in)	Height (cm)	44	46	49	52	54	57	60	63	65	68	71	73	76	79	82	84	87	90	93	95	98	101	103	106	109	112	114	117
Weight (kg): →		44	46	49	52	54	57	60	63	65	68	71	73	76	79	82	84	87	90	93	95	98	101	103	106	109	112	114	117
Weight (lbs): →		96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258
5'6'	167.5	15.5	16.5	17.4	18.4	19.4	20.3	21.3	22.3	23.2	24.2	25.2	26.1	27.1	28.1	29.0	30.0	31.0	32.0	32.9	33.9	34.9	35.8	36.8	37.8	38.7	39.7	40.7	41.6
5'7'	170	15.0	16.0	16.9	17.9	18.8	19.7	20.7	21.6	22.6	23.5	24.4	25.4	26.3	27.2	28.2	29.1	30.1	31.0	31.9	32.9	33.8	34.8	35.7	36.6	37.6	38.5	39.5	40.4
5'8'	172.5	14.6	15.5	16.4	17.3	18.2	19.2	20.1	21.0	21.9	22.8	23.7	24.6	25.5	26.5	27.4	28.3	29.2	30.1	31.0	31.9	32.8	33.8	34.7	35.6	36.5	37.4	38.3	39.2
5'9'	175	14.2	15.1	15.9	16.8	17.7	18.6	19.5	20.4	21.3	22.1	23.0	23.9	24.8	25.7	26.6	27.5	28.4	29.2	30.1	31.0	31.9	32.8	33.7	34.6	35.4	36.3	37.2	38.1
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5'11'	180	13.4	14.2	15.1	15.9	16.7	17.6	18.4	19.2	20.1	20.9	21.8	22.6	23.4	24.3	25.1	25.9	26.8	27.6	28.4	29.3	30.1	31.0	31.8	32.6	33.5	34.3	35.1	36.0
6'0"	182.5	13.0	13.8	14.6	15.5	16.3	17.1	17.9	18.7	19.5	20.3	21.2	22.0	22.8	23.6	24.4	25.2	26.0	26.9	27.7	28.5	29.3	30.1	30.9	31.7	32.5	33.4	34.2	35.0
6'1"	185	12.7	13.5	14.2	15.0	15.8	16.6	17.4	18.2	19.0	19.8	20.6	21.4	22.2	23.0	23.7	24.5	25.3	26.1	26.9	27.7	28.5	29.3	30.1	30.9	31.7	32.5	33.2	34.0
6'2"	187.5	12.3	13.1	13.9	14.6	15.4	16.2	16.9	17.7	18.5	19.3	20.0	20.8	21.6	22.3	23.1	23.9	24.6	25.4	26.2	27.0	27.7	28.5	29.3	30.0	30.8	31.6	32.4	33.1
6'3"	190	12.0	12.7	13.5	14.2	15.0	15.7	16.5	17.2	18.0	18.7	19.5	20.2	21.0	21.7	22.5	23.2	24.0	24.7	25.5	26.2	27.0	27.7	28.5	29.2	30.0	30.7	31.5	32.2
6'4"	192.5	11.7	12.4	13.1	13.9	14.6	15.3	16.1	16.8	17.5	18.3	19.0	19.7	20.4	21.2	21.9	22.6	23.4	24.1	24.8	25.6	26.3	27.0	27.8	28.5	29.2	29.9	30.7	31.4

What if I am losing weight unintentionally?

People with rheumatoid arthritis and lupus may lose their appetite (due to the disease process or as a side effect of medications). If unwanted weight loss occurs, eat small frequent, nutrient-dense meals (or snacks) that contain small amounts of canola, soy or olive oil, nuts, seeds, dairy products (2% M.F. or more and regular fat cheeses), protein sources including legumes and eggs, dried fruit, and whole grain breads and cereals throughout the day to help achieve the nutrition needed in order to prevent further weight loss. This strategy will help provide the nutrients that your body needs without using hunger or appetite as a cue to eat.

Physical activity

Exercise is important. It is good for your general health, especially the heart and circulation, and increases your strength and flexibility. Of course, arthritis can make exercise difficult and painful, and the wrong kind of exercise can make it worse. A daily walk for half an hour with the dog, for example, or a walk to the local store or park is exercise and it will help. Many people find particular types of exercise suit them; swimming is a good exercise because being in water takes the weight off the joints. Others prefer fitness classes, such as tai chi, or cycling. The most important thing is to find activities you enjoy and to do them regularly.

A common misconception is that a painful joint requires rest. On the contrary, not enough exercise can cause muscle weakness and worsening joint pain and stiffness. However, when you are experiencing a flare and/or your joint is swollen and hot, you should rest the joint and only perform light range of motion exercise.

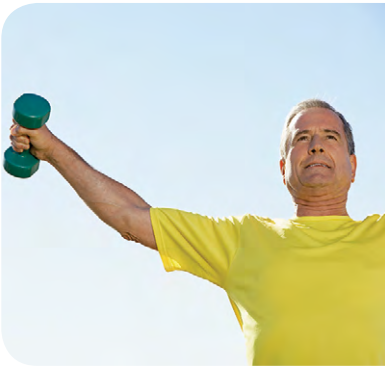
Physical activity protects joints by strengthening the muscles around them. Strong muscles and tissues support those joints that have been weakened and damaged by arthritis. A properly designed program of physical activity (with advice from a health-care provider, such as a physician or a physiotherapist/occupational therapist) reduces pain and fatigue, improves mobility and overall fitness and alleviates depression.

There are different types of exercises you can do to stay in shape as well as lessen your pain and stiffness:

Range of motion (also called stretching or flexibility exercises): Exercises that reduce pain and stiffness and keep your joints moving. To achieve the most benefit, these exercises should be done daily. Also, visit arthritis.ca/videos to view our "Simple Stretches" video.

Strengthening: Exercises that maintain or increase muscle tone and protect your joints. These exercises include weight training movements done with a set of "free" weights, your own body weight or weight machines.

Endurance: Exercises that strengthen your heart, give you energy, control your weight and help improve your overall health. These exercises include walking, swimming and cycling. It is best to avoid high-impact exercises like step aerobics, jogging or kickboxing.



There are many low-impact exercise options that can benefit people living with lupus. Consult your health-care provider to find an exercise(s) that is suitable to you and your particular condition. Examples include:

Tai chi: Tai chi, an ancient Chinese martial art, is a combination of movements performed in a slow, focused manner. Though it has many variations and

styles, tai chi is a low-impact exercise and is reminiscent of both yoga and meditation. Tai chi could improve pain and physical function in some people as well as alleviate depression and contribute to health-related quality of life.

Yoga: Numerous studies have been done on the benefits of yoga on stress and anxiety. The practice of breath control, simple meditation and stretching can improve a person's state of mind and help them better manage their pain. Regular yoga under the guidance of a certified instructor can also boost one's general health and increase energy levels.

NOTE: People living with arthritis should avoid strenuous yoga routines, such as Bikram and power yoga.

Aerobic exercise: Low-impact aerobic exercise that gets your heart pumping, such as swimming, biking and brisk walking, can help improve your sleep, keep weight under control and alleviate stress and depression.

NOTE: For more exercise tips, check out our ***Physical Activity and Arthritis*** guide, available at arthritis.ca/publications.

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About The Arthritis Society

The Arthritis Society has been setting lives in motion for over 65 years. Dedicated to a vision of living well while creating a future without arthritis, The Society is Canada's principal health charity providing education, programs and support to the over 4.6 million Canadians living with arthritis. Since its founding in 1948, The Society has been the largest non-government funder of arthritis research in Canada, investing over $190 million in projects that have led to breakthroughs in the diagnosis, treatment and care of people with arthritis.

Become a Volunteer

Help others through meaningful work. By volunteering with The Arthritis Society, you can give back to your community, learn new skills, gain work experience and meet new friends. Visit arthritis.ca or call 1.800.321.1433.

Donate Online

Donations to The Arthritis Society support vital research and services that help improve the lives of people with arthritis. There are many ways to give, visit arthritis.ca/donate to make a contribution and learn more.

How We Can Help

The Arthritis Society offers free education, programs and support to Canadians living with arthritis.

- **Programs and services:** Join us for adult and child educational sessions, such as the Chronic Pain Management Workshop (arthritis.ca/cpmw) and various public forums.
- **Online self-management courses:** Try e-learning programs like *You and Your Health-Care Provider: A Guide for Effective Conversations* and *Overcome Fatigue* (arthritis.ca/education).
- **Publications:** We publish several information booklets to help people living with arthritis understand more about their condition and treatment options as well as tips on how to self-manage. For a list of arthritis conditions and related resource materials, including a digital copy of this information, visit arthritis.ca/publications.

Learn more and connect with our online community at arthritis.ca.

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