

## Welcome

Welcome to the Autumn edition of *Nutrition News*. In this edition we give you the facts on food additives, and help you eat your way to a healthy heart with '8 Heart Healthy Foods'.

If you've always wondered what the difference is between saturated, monounsaturated and polyunsaturated fats then read 'Fats: the good, the bad and the ugly.'

Finally, get up to date on current nutrition issues in our 'Nutrition Watch' section which focuses on trans fat and soy.

Happy reading!

*Sacha, Shelley & Glenys*

Simplot Nutrition Team  
[nutrition@simplot.com.au](mailto:nutrition@simplot.com.au)

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## Food Additives: the Facts

In times gone by, drying, pickling, fermenting and salting were the most common methods used to preserve foods for any length of time.

Today, food additives more frequently used in processed foods to help keep food fresh and safe for longer. As well as extending shelf-life, food additives can also be used to improve nutritional content, flavour, texture, colour and consistency. Their use in food is regulated by the government agency, Food Standards Australia New Zealand (FSANZ). FSANZ governs which additives are allowable in foods, when they can be added and how much is permitted.

### Identifying food additives

In order to be better informed about ingredients in manufactured foods, it is important that you first learn to read and understand the ingredient list. Additives are listed according to their functional or class names. On labels, the class name is followed by the additive's name or number e.g. Thickener (pectin); or Thickener (440).



### How much is in the foods we eat?

The amount of additives allowed in foods is small and is strictly regulated to ensure safety. Amounts permitted in the final food product range between 0.001% to 3% depending on the type of food additive. There are a few additives which have no limits placed on the amount which can be added.

### Are additives bad for you?

Before additives are permitted for use in foods, they must first undergo a rigorous safety evaluation. There are also review processes in place to re-evaluate food additives should any new evidence bring their safety into question.

Despite these precautions, some people may find that they are sensitive to particular food additives. There are about 50 additives which are known to cause adverse reactions,

however, the number of people who experience them is very low. Food sensitivities are more commonly caused by naturally occurring food components, so it is best to consult with your doctor or dietitian if you suspect that you have a food sensitivity.

Sensitivity to food additives can cause a wide variety of symptoms including skin rash, nasal congestion, asthma and hives. In rare cases, they can result in a true allergic reaction, which differs to sensitivity in that it involves an immune response and can be more severe. Around 1% of the Australian population experience food allergies and 10% are affected by food sensitivities.

For some additives the claimed reactions are not supported by scientific evidence. For example, the theory that artificial colours and flavours in foods are linked with hyperactivity in children was popularised in the 1970's, however, studies carried out since that time have failed to establish a connection.

### What should I do if I think I have a sensitivity to food additives?

Firstly, it is important to keep in mind that adverse reactions to food additives are very uncommon and most people are not at significant risk. Studies have shown that additives are unlikely to aggravate chronic conditions such as allergies, asthma, or irritable bowel syndrome.

If you are experiencing symptoms similar to those of a food sensitivity you should see your doctor. Further investigation by an allergy specialist may be required to determine what substances are causing the reaction. If you are diagnosed as having a food sensitivity, a dietitian can assist in identifying and avoiding trigger foods.

For further information on food additives, visit [www.foodstandards.gov.au](http://www.foodstandards.gov.au).



# Eating for Heart Health

## 8 Heart Healthy Foods

Keeping your heart in shape may add many years to your life. Regular exercise, not smoking and controlling stress are essential for a healthy heart. One of the easiest and most enjoyable things you can do for your heart is to eat a healthy diet.

A heart-healthy diet comprises a variety of foods including vegetables, fruits and whole-grains, and is low in saturated fat, trans fat and cholesterol. To get started, try adding these eight "super-foods" to your diet and eat your way to a healthier heart.

### Fish and seafood

Eating fish two to three times a week is a great way to improve heart health. Fish, especially oily fish such as mackerel, tuna, salmon, sardines and trout, are excellent sources of long chain omega-3 fats. Long chain omega-3s reduce the tendency for blood to clot, which helps reduce the risk of heart attack. They also help blood flow, reduce blood pressure and help regulate your heart beat.



### Oats

Oats, oat bran and oatmeal contain a specific type of fibre known as beta-glucan. This soluble fibre binds to cholesterol and carries it out of the body, reducing cholesterol levels and thereby reducing the risk of heart disease.

To reduce your cholesterol, oats must be eaten on a regular basis as part of a well balanced diet. About 60-100g per day is required, which is about the amount found in a medium bowl of porridge.

### Blueberries

Blueberries contain a larger proportion of antioxidants than almost any other fruit or vegetable. Blueberries contain very high levels of anthocyanins, which are plant pigments that give fruit their bright colour. Anthocyanins are antioxidants which protect against heart disease by preventing LDL (bad) cholesterol from oxidising and therefore reducing risk of atherosclerosis.

Other antioxidant powerhouses from the berry family include, blackberries, cranberries, sweet cherries, boysenberries, currants and raspberries.

### Soy protein

Soy is a rich source of phytoestrogens and isoflavonoids, which have been shown to lower cholesterol levels, help reduce

atherosclerosis, lower blood pressure and improve the flexibility of blood vessels so they respond more easily to changes in blood pressure. Sources of soy include soybeans, soy flour, soy milk, soy cheeses and yoghurts, tofu, tempeh and textured vegetable protein (TVP).

### Nuts

A small handful (30-50g) of unsalted nuts in place of less nutritious snacks is thought to help improve your heart health. Nuts, like all plant foods, contain significant levels of antioxidants including flavanoids and vitamin E. These antioxidants are beneficial for the health of blood vessels and reduce the risk of clogged arteries. Nuts are also rich in the amino acid arginine, a substance which may improve the health of your artery walls and make them less prone to blood clots.

Although nuts are high in fat, most of the fat is the healthy type (mono-unsaturated and polyunsaturated fats) which helps lower cholesterol levels. Nuts are also a great source of folate - a vitamin which helps reduce high levels of an amino acid called homocysteine, which is a risk factor for heart disease.



### Legumes

Legumes such as peas, beans and lentils are high in soluble fibre, which helps lower blood cholesterol when eaten regularly. Legumes are also generally low in fat and an excellent source of protein. Replacing some of the meat in our diet with legumes can help reduce your total fat and saturated fat intake—an important step in promoting heart health.

### Tea

Population studies have shown that tea drinkers have significantly less risk of heart disease than people who do not drink tea. Both green and black teas are rich in antioxidants known as catechins. It seems that catechins help promote heart health by reducing the tendency for blood to clot and by keeping the arteries more elastic.

### Red wine

Red wine and certain types of grape juice have high levels of polyphenols, which block the production of homocysteine, an amino acid linked to cardiovascular disease. Although more research is needed, the scientific consensus seems to be that wine, especially red wine (in moderation), is the most 'heart friendly' alcoholic beverage.



**What is Atherosclerosis?**  
Atherosclerosis is the hardening and narrowing of arteries caused by the build-up of plaque on the inside of artery walls. Plaque may restrict blood flow, and lead to heart attack or stroke.

# Fats: The Good, The Bad and The Ugly

## What is fat?

Fat plays an important role in the diet. It is a source of energy and aids the absorption of the fat soluble vitamins A, D, E and K and essential fatty acids. There are several different types of dietary fats including saturated fat, polyunsaturated fat, monounsaturated fat and cholesterol.

## Cholesterol is different

Blood (serum) cholesterol and dietary cholesterol are different types of cholesterol. Dietary cholesterol is found in foods of animal origin such as egg yolk, organ meats and dairy products. Blood cholesterol occurs naturally in our body and is carried in the bloodstream in packages called *lipoproteins*. High density lipoprotein (HDL) is a 'good' form of blood cholesterol and low density lipoprotein (LDL) is a 'bad' type. Cholesterol from food is thought to have less of an effect on blood cholesterol levels than saturated fats. To prevent high blood cholesterol, limiting intake saturated fat is recommended. Restriction of cholesterol-containing foods is only recommended for individuals with existing high blood cholesterol levels.

## Major types of fat

### • Monounsaturated fat

Monounsaturated fat is found in canola, peanut and olive oils, avocados, and nuts such as peanuts, hazelnuts, cashews and almonds. Monounsaturated fats may help prevent heart disease by reducing harmful LDL cholesterol in the blood. This was discovered after people who live in the Mediterranean where olive oil is widely consumed, were found to have much lower rates of heart disease than people in other countries where olive oil is not eaten as frequently.

### • Polyunsaturated fat

Polyunsaturated fat is found in plant foods including nuts, seeds, and sunflower, safflower and soybean oils. Polyunsaturated fats also help reduce blood cholesterol levels, which in turn reduces the risk of heart disease. Polyunsaturated fatty acids can be further divided into omega-3 and omega-6 fatty acids, which are both essential in the human diet.

### • Omega-3 fats

Alpha-linolenic acid (ALA) is a short chain plant-derived omega-3 fatty acid found in canola oil, linseed and soy. Docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) are long chain omega-3 fatty acids found in abundance in seafood such as tuna, mackerel, salmon and sardines.

Research suggests that long chain omega-3 fats play a beneficial role in the development and function of the brain, eyes and heart. Australian Dietary Guidelines recommend eating at least two fish meals per week.

### • Omega-6 fats

The omega-6 fats linoleic acid (LA) and gamma linoleic acid (GLA) are required for the maintenance of growth, good health and reproduction. Omega-6s are found in plant foods such as seeds, nuts and vegetable oils.

A high intake of omega-6 can interfere with the metabolism of omega-3s and stop them from doing their job. A healthy diet should contain omega-3 and omega-6 fats in a ratio of 1:4. However the Australian ratio is now estimated to be out of balance by as much as 1:20.

### • Saturated fat

Saturated fats are found primarily in animal-derived foods such as meat and dairy products, and also in plant-derived coconut and palm oils. Saturated fats are solid at room temperature and are frequently found in processed foods such as deep-fried takeaway foods, biscuits, pastries and potato crisps. High levels of saturated fat in the diet have been linked with high blood cholesterol, increased risk of heart disease and some cancers, so intake should be restricted.

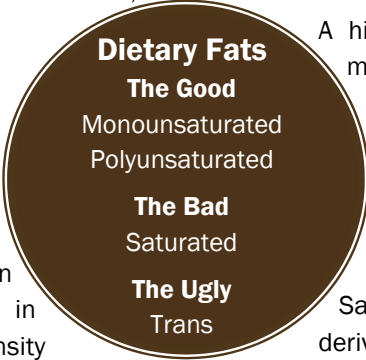
### • Trans fats

Trans fats are as harmful for health as saturated fats. Like saturated fat, trans fats can raise the level of 'bad' LDL cholesterol in the blood, however, unlike saturated fat they also lower the 'good' HDL cholesterol in the blood, increasing the risk of cardiovascular disease. Most trans fat in the diet comes from processed foods. They are formed by a process called partial hydrogenation when liquid vegetable oils are converted into semi-solids (like hard margarine and shortening).

## How much fat should I eat?

For the general population about 30% of total energy from food should come from fat, and no more than 10% of this should come from saturated fat. Because people's daily energy needs differ, the recommended intake of dietary fat varies from person to person. Simply put, the more energy you burn, the more fat permitted in your diet. Those who are overweight should aim for a total fat intake of less than 20-25% of energy. The table below gives an estimate of fat requirements based on activity levels.

Activity Level	Kilojoule intake	Fat (g) intake
<b>Women</b>		
Moderately active	9000	65
Sedentary	6300	50
Aiming for weight loss	5000	40
<b>Men</b>		
Moderately active	10 500	85
Sedentary	8400	65
Aiming for weight loss	6300	50





# Nutrition Watch

## Trans fat update

A National Collaboration on Trans Fats has been established to focus on initiatives aimed at reducing the amount of damaging trans fatty acids in food sold in Australia and New Zealand.

The National Heart Foundation of Australia, the Dietitians Association of Australia, the Australian Food and Grocery Council and Food Standards Australia and New Zealand will lead the initiative which will provide an opportunity to promote current industry and public health initiatives in this area as well as raise consumer awareness of trans fats.

### How much trans fats are we consuming?

A formal scientific review of trans fats in the food supply has revealed that on average Australians obtain only 0.6 per cent of their daily kilojoules from trans fat and New Zealanders only 0.7 per cent, which is well below the World Health Organisation's (WHO) recommendation to consume no more than 1 per cent of your daily kilojoules from trans fat.

This low level of consumption of trans fats is in part due to leadership by the Heart Foundation Tick Program and the food industry in encouraging and using healthier fats.

However, there are concerns that with all the focus on trans fats, dangerous saturated fats have been forgotten. A few reports have suggested the some fast food companies are replacing trans fats with saturated fats.

Australians currently eat levels of saturated fats greater than WHO recommendations.

Australia's major fast food companies have been invited by the Government to a summit on March 12 to discuss the reduction of trans fats in their cooking processes. If industry is not cooperative, other options may be explored such as compulsory trans fat labelling or limits on trans fat.

Most trans fats in a typical diet come from commercially fried foods and bakery products such as pies, pastries, biscuits and buns made with shortening, margarine or oils containing partially hydrogenated fats for the purpose of increased shelf-life, stability, texture and mouthfeel.

## Soy Good?

Soy foods have been getting a lot of attention in the media lately, and not all of it has been positive. Reports that high soy diets may not be good for cancer sufferers have caused some confusion about the safety of soy. So what's the real story?

Soy hit the headlines when the Cancer Council of NSW changed their Position Statement on soy and cancer recently. Contrary to some media reports, the Cancer Council NSW has never advised that soy foods be avoided. They do, however, recommend that **breast cancer survivors** be cautious in consuming **concentrated doses** of soy from supplements or **large amounts** of soy foods. This is because studies examining the effects of soy consumption in animals with breast cancer have had mixed results—some suggest it may be protective, while others have found that the plant hormones in soy may promote cancer growth. No associations exist between soy foods and any other types of cancer.

Enjoying soy foods at normal levels (between **one and four servings a day**) is safe for everyone—including those with breast and other cancers. In fact, evidence suggests that eating soy foods may slightly *lower* the risk of developing breast or prostate cancer. Regular intake of soy foods may also reduce the risk of heart disease, stroke and osteoporosis. Australian Dietary Guidelines, Nutrition Australia and the Dietitians Association of Australia continue to support the consumption of soy foods as part of a healthy diet.



## Children's nutrition and activity survey

Four thousand children across Australia aged between 2 and 16 years (and their families) will soon be randomly selected to participate in a major nutrition and activity survey.

Children's height, weight and waist circumference will be measured and food intake over a 24 hour period will be recorded. The amount of physical activity undertaken by children aged 5 or older will also be measured.

The survey will highlight what Australian children eat, how they eat and what parts of this population may be at risk of nutrient deficiency or excess. Up-to-date estimates of overweight and obesity rates among Australian children and their physical activity levels will also be obtained.

The \$3 million survey has been funded by the Department of Health and Ageing, the Department of Agriculture, Fisheries and Forestry and the Australian Food and Grocery Council.

The survey is expected to be completed in July, with initial results available late this year.

## Coeliac Awareness Week (March 13-20)

Visit: [www.coeliac.org.au](http://www.coeliac.org.au) for more details.

## Heart Week (April 29—May 5)

Surviving a heart attack.....

would you know what to do?

Heart attack is a life-threatening event. Each year, coronary heart disease – mainly heart attack – is the underlying cause of death for almost 25,000 Australians.

[www.heartfoundation.com.au](http://www.heartfoundation.com.au) or Heartline 1300 36 27 87