

# Cholesterol: how to lower cholesterol

## Why bother?

Heart disease is the number one killer in Australia. It is mainly caused by clogging up of the arteries by a fatty substance known as *atheroma*, which comes from having too much 'fat' in the blood. This serious process is called *atherosclerosis*—the condition that can lead to heart attack or stroke. There are two types of fat that cause damage if their levels are too high—*cholesterol* and *triglyceride*. A special blood test taken after fasting for at least 12 hours can tell if one or both of these fats are too high.

## Triglyceride

If your triglyceride level is too high, fixing the problem is usually quite straightforward because it is mainly due to being overweight. It is caused by having too many calories in the diet, especially from sugar and other carbohydrates and high-calorie drinks (e.g. soft drinks and alcohol, in particular beer). The aim is to get your weight down to an ideal level.

## Cholesterol

High cholesterol is a bigger problem, and if your level is too high it is important to reduce it. Cholesterol is a white fatty substance made mainly in the liver by animals, including humans. We get high levels mainly through our diet, by eating saturated fats especially from animal foods (therefore it is a rare problem in vegetarians) and

trans-fats found mainly in processed products. There are 2 main types—HDL 'good' cholesterol and LDL 'bad' cholesterol. We aim to raise HDL and lower LDL. Most people can lower the level through changing their diet. Occasionally the level is so high in some people that, in addition to the diet, special medicine is necessary to reduce it to the right level. The prescribed drugs are very effective.

*Note:* Although cholesterol is present in animal food, it has been shown that it is necessary to reduce the amount of *all* the saturated fats (plant and animal) in our diet and to lose excess weight in order to get our cholesterol down. Foods rich in starch (such as bread, rice and pasta) and foods rich in starch and fibre, known as complex carbohydrates, also help.

### Golden rules

- Keep to your ideal weight.
- Take a high-fibre diet.
- Eat fish at least twice a week.
- Beware of 'fast' foods: limit to once a week.
- Avoid deep-fried foods.
- Take regular exercise.
- Always trim fat off meat.
- Avoid biscuits between meals.
- Drink more water.
- Do not smoke.
- Limit alcohol intake.
- Limit cheese and ice-cream to twice a week.
- Keep LDL/HDL ratio less than 4.

## The low-cholesterol diet

	Foods to avoid	Suitable foods
Eggs	whole eggs, egg yolks	egg whites
Milk	whole milk and its products—butter, cream, cheese, ice-cream, yoghurt, condensed milk, full-fat soy milk	low-fat milk, skim milk and its products—cottage and ricotta cheese, buttermilk, non-fat yoghurt
Organ meats	brains, liver, pate, liverwurst, kidney, sweetbread	—
Seafood	prawns, squid (calamari), fish roe, caviar, fish 'fingers', canned fish in oil (e.g. sardines)	fresh fish, scallops, oysters, canned fish in water, lobster and crab (small amounts)
Meat	fatty meats—bacon, ham, sausages, salami, canned meats, pressed meats, meat pastes, hamburger mince	rabbit, veal (without fat), lean cuts of beef, lamb and pork (in moderation)
Poultry	duck, goose, skin of chicken and turkey, pressed chicken	chicken (without skin), turkey (lean and without skin), preferably free-range
Bakery food	pies, pasties, pastries, cakes, doughnuts, biscuits, bread with cheese/bacon/ham toppings	bread and crumpets (especially wholemeal), crispbreads, water-biscuits, homemade items (pies, etc.) if proper ingredients used
Fast food	fried chicken, chips, fish, dim sims, spring rolls, etc., hot-dogs, pizzas, fried rice	—
Nuts	roasted nuts, peanut butter (can have in very small amounts)	pecan nuts, hazelnuts, walnuts, almonds, seeds (in moderation), peanuts, cashews, brazil nuts, macadamias
Fruit and vegetables	—	all types (very important)
Oils and fats	saturated fats—lard, dripping, suet, copha, cooking (hard) margarine, coconut and palm oils, mayonnaise	polyunsaturated fats—some margarines (less than 0.9% trans-fats), some salad dressings (olive oil/French style); vegetable oils—olive, walnut, corn, soya bean, sunflower, safflower, cottonseed (all in moderation)
Miscellaneous	gravies, potato crisps, caramel, chocolate (including carob), butterscotch, 'health food' bars, fudge, coffee whitener and other cream substitutes, toasted breakfast cereals (especially with coconut), fried noodles	rice, pasta, cereals, jelly, herbs, spices, canned spaghetti, baked beans, Vegemite, tea, coffee, honey, jam, alcohol (small amounts)
Cooking methods	frying, roasting in fat	using vegetable oils (as above), baking, boiling, grilling, stewing