



Pharmaceutical  
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# Fat and Cholesterol

**Our bodies need cholesterol and triglycerides (fats), but having too much cholesterol or fat in our blood can increase our chances of developing high blood pressure, heart disease and stroke. High cholesterol and triglyceride levels can be lowered with healthy eating, lifestyle changes and medicines.**

## Types of fats

Fats occur in food as:

- Saturated fats – mainly from animal products (e.g., dairy products, meats, eggs, butter), coconut and palm oils, and fried foods
- Polyunsaturated fats – in fish and fish oils, some vegetable oils, some nuts and seeds
- Monounsaturated fats – mainly from plant foods, including some vegetable oils, some nuts and seeds and avocado
- Trans fats – mainly in commercially baked products (e.g., pastries, cakes, biscuits, pies, buns).

Our bodies convert fats in food into triglycerides and cholesterol. Saturated and trans fats are especially readily converted into cholesterol.

## Cholesterol and triglycerides

Our bodies need cholesterol to make cell membranes, bile salts, hormones and vitamin D. Some cholesterol comes from food and some is produced by the liver. Our bodies need triglycerides for energy. Cholesterol and triglycerides travel in the blood attached to lipoproteins.

### LDL cholesterol

Low-density lipoproteins (LDL) carry cholesterol to body tissues that need it. Excess LDL cholesterol can build up in blood vessels (hardening of the arteries) and block blood flow. LDL cholesterol is called 'bad' cholesterol.

### HDL cholesterol

High-density lipoproteins (HDL) carry cholesterol from body tissues to the liver for removal from the blood. HDL cholesterol is called 'good' cholesterol.

### Triglycerides

Very low-density lipoproteins (VLDL) carry triglycerides to body tissues where they are stored

or used for energy. Excess triglycerides build up in body tissues as 'fat'.

Problems caused by excess LDL cholesterol and triglycerides include:

- Blocked blood vessels – leading to heart attack, stroke, angina, high blood pressure, kidney failure
- Cancer of the colon and rectum
- Constipation and bowel problems
- Diabetes
- Weight gain.

## Healthy cholesterol and triglyceride levels

To reduce the risk of heart attack, stroke and other cardiovascular conditions, the Heart Foundation currently recommends a:

- LDL cholesterol blood level less than 2.5mmol/L
- HDL cholesterol blood level more than 1mmol/L
- Triglycerides blood level less than 1.5mmol/L.

High LDL cholesterol and triglyceride levels are usually the result of eating too much food containing saturated and trans fats. Some people have a high LDL cholesterol or triglyceride level regardless of diet, as they metabolise fat in a different way. This can be inherited.

## Tests

A simple blood test can measure blood cholesterol and triglyceride levels. Ask your doctor for a blood test if you:

- Are over 45 years old
- Have a family history of heart disease, diabetes or high cholesterol
- Have had a heart attack or stroke or have angina

- Have high blood pressure or diabetes
- Smoke
- Are overweight
- Regularly eat high fat foods.

## Self care

To reduce your LDL cholesterol and triglyceride levels:

- Consume less saturated and trans fats. Replace foods containing saturated and trans fats with foods containing polyunsaturated and monounsaturated fats
- Eat regular, healthy meals, including plenty of fruit, vegetables and grains. Limit foods high in fat, sugar or salt
- Use low fat cooking methods
  - Bake, grill, steam or boil instead of frying
  - Baste foods with tomato juice or stock
  - Use oil-free dressings
- Exercise regularly – The Heart Foundation recommends at least thirty minutes of moderate exercise on all or most days of the week
- Don't smoke
- Limit alcohol.

## Medicines

If your cholesterol or triglyceride levels remain high despite a healthy diet and regular exercise, your doctor may also recommend regular treatment with medicines.

## Related fact cards

- *Alcohol*
- *Diabetes Type 2*
- *Exercise and the Heart*
- *High Blood Pressure*
- *Weight and Health*

## For more information

**The Heart Foundation** – phone Heartline on 1300 36 27 87 or website [www.heartfoundation.org.au](http://www.heartfoundation.org.au)

**Dietitians Association of Australia** – website [www.daa.asn.au](http://www.daa.asn.au)

**HEALTH/insite** – website [www.healthinsite.gov.au](http://www.healthinsite.gov.au)

**Consumer Medicine Information (CMI)** leaflets – your pharmacist can advise on availability.

**NPS Medicines Line** – phone 1300 888 763 Monday to Friday, 9am to 6pm EST.

**The Poisons Information Centre** – in case of poisoning phone 131 126 from anywhere in Australia.

Pharmacists are medicines experts. Ask a pharmacist for advice when choosing a medicine.

## Enjoy healthy eating – the Heart Foundation guide to keeping your blood cholesterol in check

- Use polyunsaturated or monounsaturated margarine spreads instead of butter or dairy blends.
- Use a variety of oils for cooking – some suitable choices include canola, sunflower, soybean, olive and peanut oils.
- Use salad dressings and mayonnaise made from oils such as canola, sunflower, soybean and olive oils.
- Choose low or reduced fat milk and yoghurt or 'added calcium' soy beverages. Try to limit cheese and ice cream to twice a week.
- Have fish (any type of fresh or canned) at least twice a week.
- Select lean meat (meat trimmed of fat and chicken without skin). Try to limit fatty meats including sausages and delicatessen meats such as salami.
- Snack on plain, unsalted nuts and fresh fruit.
- Incorporate dried peas (e.g., split peas), dried beans (e.g., haricot beans, kidney beans), canned beans (e.g., baked beans, three bean mix) or lentils into two meals a week.
- Make vegetables, and grain based foods such as breakfast cereals, bread, pasta, noodles and rice the major part of each meal.
- Try to limit takeaway foods to once a week. Takeaway foods include pastries, pies, pizza, hamburgers and creamy pasta dishes.
- Try to limit snack foods such as potato crisps and corn crisps to once a week.
- Try to limit cakes, pastries and chocolate or creamy biscuits to once a week.
- Try to limit cholesterol-rich foods such as egg yolks and offal (e.g., liver, kidney and brains).

Your **Self Care** Pharmacist

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