LiveLife PHARMACY

Fat and Cholesterol

Our bodies need cholesterol and fats (triglycerides), 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 our food as:

Polyunsaturated fats
They include:

- **Omega-3 fats** – mainly in oily fish and fish oils (e.g. salmon, sardines, some tuna), some plant and seed oils (e.g. canola, soyabean), walnuts and linseeds (flaxseeds)

- **Omega-6 fats** – mainly in fish, plant and seed oils (e.g., canola, sunflower, soybean, sesame), some nuts (e.g., walnuts, peanuts, pecans, brazil nuts, pine nuts) and linseeds

Monounsaturated fats
These fats are found mainly in fish, plant and seed oils (e.g., olive, canola, sesame), some nuts (e.g., hazelnuts, peanuts, cashews, almonds, macadamias, pecans, pistachios) and avocados

Saturated fats
These fats are mainly in animal products (e.g., milk, cream, cheese, butter, yoghurt, meats), coconut and palm oils, commercially baked products (e.g. pastries, cakes, biscuits, pies, buns) and deep-fried fast foods (e.g. chips, crisps)

Trans fats
Occur mainly in commercially baked products (e.g., pastries, cakes, biscuits, pies, buns) made with hydrogenated or partially hydrogenated vegetable fats or oils
Our bodies convert fats from our food into triglycerides and cholesterol. Saturated and trans fats are especially readily converted into cholesterol.

Cholesterol (which is similar to fat) also occurs naturally in animal products (e.g. dairy products, meats, egg yolks, shellfish, liver, kidney, brains). Saturated and trans fats in food increase 'bad' cholesterol blood levels more than cholesterol in food does.

Cholesterol and Triglycerides

Our bodies need a certain amount of cholesterol to make cell membranes, bile salts, hormones and vitamin D. Our bodies need a certain amount of triglycerides as a source of energy. Some of this cholesterol and triglycerides comes from food and some is produced by the liver. Cholesterol and triglycerides travel in the blood in lipoproteins.

LDL cholesterol

Low-density lipoproteins (LDL) carry cholesterol from the liver to body tissues that need it. Excess LDL cholesterol can build up in blood vessel walls and block blood flow. LDL cholesterol is called 'bad' cholesterol.
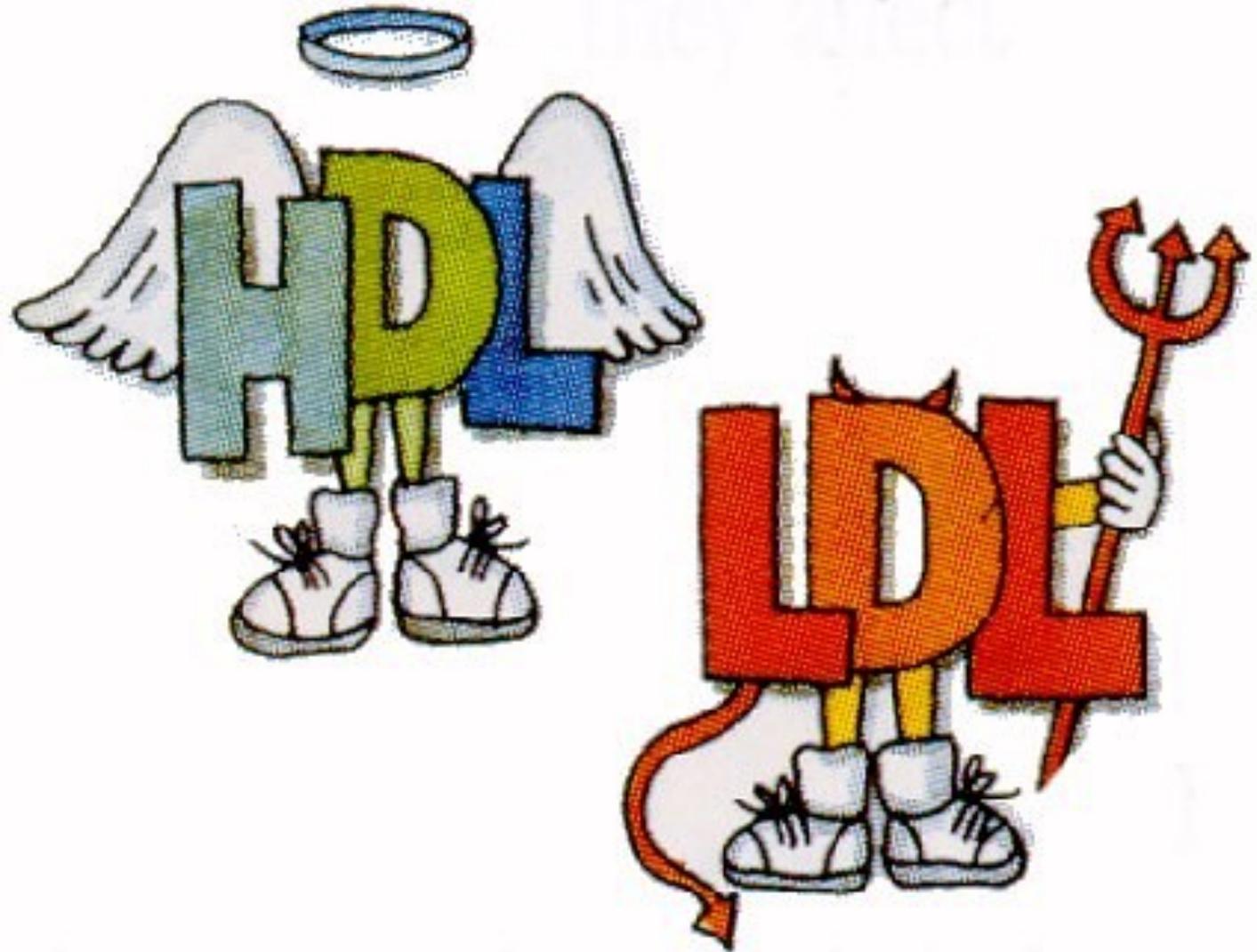
HDL cholesterol

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

Triglycerides

Very low-density lipoproteins (VLDL) carry triglycerides from the liver to body tissues where they are stored or used for energy. Excess triglycerides build up in body tissues as 'body 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 2.5 mmol/L (or less than 2.00 mmol/L for people with heart disease)

- HDL cholesterol blood level more than 1 mmol/L

- Triglycerides blood level less than 1.5 mmol/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 despite a healthy diet, as they metabolise fat in a different way. This can be inherited.

Tests

A blood test can measure blood cholesterol and triglyceride levels. Ask your doctor for this 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 heart disease

- Have high blood pressure, diabetes or kidney disease

- Are an Aboriginal or Torres Strait Islander

- Smoke

- Are overweight

- Regularly eat high fat foods.

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 that lower blood cholesterol and triglyceride levels (e.g. 'statins').

Good Fats		Bad Fats	
Monounsaturated	Polyunsaturated	Saturated	Trans
Foods high in monounsaturated fat	Foods high in polyunsaturated fat	Foods high in saturated fat	Foods high in trans fat
Canola oil	Most vegetable and seed oils (sunflower, soybean, corn, cottonseed)	Fatty meats	Biscuits
Olive oil		Chicken skin	Cakes
Olives		Butter	Pastries
Monounsaturated margarine spreads	Polyunsaturated margarine spreads	Cream	Doughnuts
Avocado	Linseeds	Full cream milk	
Most nuts (almonds, peanuts, cashews, hazelnuts, macadamias, pistachios)	Some nuts (walnuts, brazil nuts, pecans, pine nuts)	Cheese	
		Ice cream	
	Wheatgerm	Lard	
	Oily fish and fish oils	Coconut oil (copha)	
Egg yolk		Palm oil	
		chocolate	
		Deep fried foods	
		Takeaway and fast foods	

Self Care

To reduce your LDL cholesterol and triglyceride levels:

- Eat 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 grain foods. Limit foods high in fat, sugar or salt.

- Use low fat cooking methods. Bake, grill, poach, steam or stir fry instead of shallow or deep frying.

- Exercise regularly – Health authorities recommend at least thirty minutes of moderate exercise on all or most days of the week.

- Don't smoke.

- Limit alcohol.

Heart Foundation tips for a healthy balanced diet low in saturated and trans fats :

- Use spreads and margarines made from canola, sunflower or olive oil and dairy blends instead of butter. Spread them thinly.
- Cook with polyunsaturated or monounsaturated oils made from plants or seeds (e.g., canola, sunflower, soybean, olive, sesame, peanut).
- Use salad dressings and mayonnaise made from canola, sunflower, soybean, olive, sesame and peanut oils.
- Eat two to three serves (150g) of oily fish a week.
- Select lean meat and poultry. Try to trim all visible fat from meat before cooking. Remove skin from chicken and turkey. Try to limit processed meats (e.g., sausages) and deli meats (e.g., salami). Limit liver, kidneys and pâté.
- Use reduced, low or no fat dairy foods (e.g., milk, yoghurt, custard, cheese, cream) or 'calcium added' non-dairy (e.g., soy) foods. Include small portions of cheese (one to two slices) up to four times a week. Lower fat cheeses include light tasty cheddar, ricotta, cottage and light mozzarella. A healthy balanced diet can include a serve of plain ice cream (1½ scoops) up to three times a week.
- A healthy balanced diet can include a serve of eggs (two eggs) in two to three meals a week.
- Try to limit deep fried foods and fatty take-away foods (e.g., pies, pizza, fried fish, hamburgers, hot chips, creamy pasta dishes) to no more than once a week.
- Try to limit fatty snacks, such as crisps, cakes, pastries, biscuits and chocolate, to no more than once a week.

For More Information

The Heart Foundation
Phone Heartline: 1300 36 27 87
Website: www.heartfoundation.org.au

Dietitians Association of Australia
Website: www.daa.asn.au

Healthdirect Australia
Phone: 1800 022 222
Website: www.healthinsite.gov.au

Consumer Medicine Information (CMI)
Your pharmacist can advise on CMI leaflets.

National Prescribing Service (NPS) Medicines Information
Phone: 1300 MEDICINE (1300 633 424)
Website: www.nps.org.au

The Poisons Information Centre
In case of poisoning phone 13 11 26 from anywhere in Australia.

MEET the FATS
Some are bad, some are better.