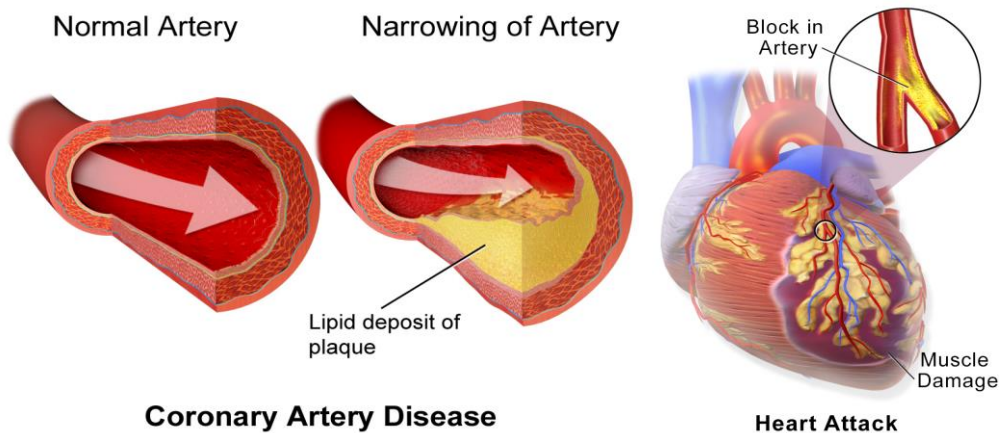


Blood Cholesterol

Cholesterol is a waxy, fat-like substance found in the blood. Your body needs cholesterol to build cells and make hormones. The liver makes most of the cholesterol your body needs, the remainder comes from your diet.

Lipoproteins carry cholesterol in the blood. **Low Density Lipoprotein (LDL) cholesterol**, commonly known as the bad cholesterol, can stick to the walls of the arteries and cause a fatty build-up called plaque. **High Density Lipoprotein (HDL) cholesterol**, commonly known as the good cholesterol, removes excess cholesterol and may prevent cholesterol build-up in the arteries. Too much plaque leads to blockages that prevent blood from flowing properly to the heart, causing a heart attack. With a stroke, blood cannot flow properly to the brain. **Triglycerides** are a form of fat. High levels of triglycerides can also increase your risk of heart disease.



Aims of Treatment

- Your LDL cholesterol target will vary according to your risk for developing heart disease. Discuss with your doctor.

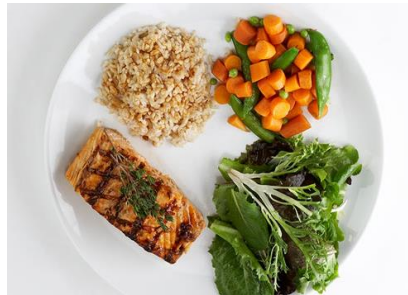
| Lipid profile | Higher risk individuals (e.g. those with diabetes) | Lower risk individuals | Your results |
|-------------------|--|------------------------|--------------|
| Total cholesterol | <4.1mmol/L | <5.2mmol/L | |
| LDL cholesterol | <2.6mmol/L | <3.4mmol/L | |
| HDL cholesterol | ≥1.0mmol/L | ≥1.0mmol/L | |
| Triglycerides | <1.7mmol/L | <1.7mmol/L | |

- Maintain an ideal body weight (BMI 18.5-22.9kg/m²). Aim for weight reduction if your BMI is above 23kg/m². Losing excess weight can improve your lipid profile and reduce your risk of heart disease and stroke.

$$\text{Body Mass Index (BMI)} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

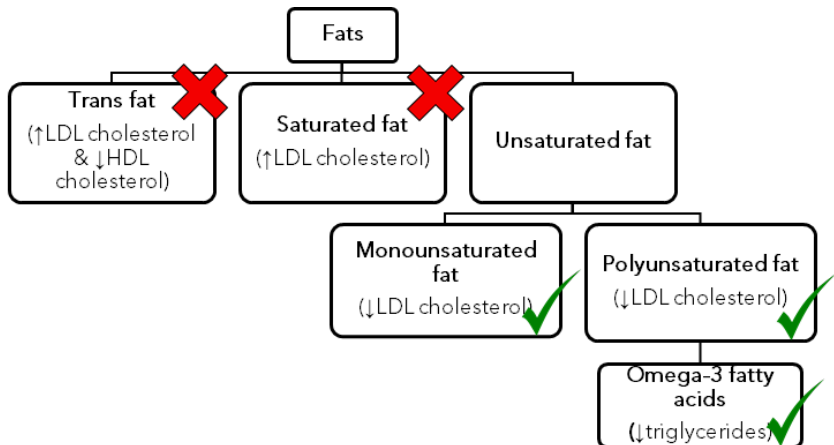
Healthy Eating Tips for Managing Cholesterol

1. **My Healthy Plate** is a visual guide for creating balanced and healthy meals. It shows you what to eat in the right amounts for each meal, so that you can plan your portions accordingly.
 - ✓ Fill half your plate with fruit and vegetables.
 - ✓ Fill a quarter with wholegrains.
 - ✓ Fill a quarter with meat and others.



2. Know your fats.

- Trans fats can be found in fried foods and baked goods (e.g. pastries).
- Saturated fats are found in animal foods, such as fatty meat, butter and dairy products. They are also found in coconut products and palm oil.



3. Limit total fat intake and reduce intake of trans and saturated fats.

Fats are very high in energy, so too much can cause weight gain.

- ✓ Choose healthier cooking oils containing monounsaturated and polyunsaturated fats (e.g. soybean oil, rice bran oil, sunflower oil, canola oil, sesame oil, peanut oil and olive oil).
- ✓ Choose healthier cooking methods (e.g. steaming, stir-frying and grilling).
- ✓ Choose lean meat or remove visible fat and skin.
- ✓ Choose fat-free or low-fat products.
- ✓ When eating out, ask for no/less gravy, choose soup instead of fried noodles, and choose plain instead of flavored rice (e.g. chicken rice and nasi lemak).



4. Aim for 2 servings of fish (particularly oily fish, which contain omega-3 fatty acids) per week. Besides having a favourable effect on your lipid profile, omega-3 fatty acids also have a positive impact on other aspects of heart health. Examples of oily fish include salmon, tuna, mackerel, herring and sardines. 1 serving of fish = ~100g cooked.



5. Increase fibre intake. Soluble fibre binds to cholesterol in the intestine and reduces absorption into your bloodstream.

- ✓ Aim for 2 servings of fruits and 2 servings of vegetables daily.
- ✓ Choose wholegrains (e.g. brown rice, oats and wholemeal bread).
- ✓ Incorporate plant-based proteins (e.g. beans and lentils) in your cooking.
- ✓ Choose healthy snacks (e.g. nuts and seeds).

6. Limit alcohol consumption. Drinking alcohol raises blood triglyceride levels. Also, too much alcohol can lead to weight gain. Drink in moderation if you must. Women should drink no more than one standard drink per day, and men should drink no more than two. 1 standard drink = 1 can (330ml) of beer, ½ glass (100ml) of wine or 1 nip (30ml) of spirit.



Where Can I Get More Information?

To find a dietitian, please call 6357 8322 for an appointment. You will need to obtain a referral from your doctor for a dietitian consultation.

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