



مستشفى الزهراء دبي

AL ZAHRA HOSPITAL DUBAI

Care in Style

رعاية راقية

CHOLESTEROL & YOUR HEALTH



A Guide on How to Control Cholesterol

WHAT IS CHOLESTEROL?

The fatty substance in our blood is called the **lipid**. It consists of **cholesterol** and **triglyceride**. **Cholesterol** is of two types, the **HDL** (high density lipoprotein) and **LDL** (low density lipoprotein) cholesterol.

HDL cholesterol is beneficial to our body so it is commonly known as the GOOD cholesterol. The LDL cholesterol & Triglyceride are harmful so they are the BAD ones.

WHERE DO THEY COME FROM?

Cholesterol, a waxy substance either comes from the food we eat or is being produced in the liver.

Triglyceride's origin is more or less similar to that of cholesterol. Either it is produced in the body or comes from fatty and sugary foods we eat.

Rarely one may inherit a disorder from parents where very high cholesterol is produced in the liver since childhood.

WHY LDL & TRIGLYCERIDE ARE BAD?

The bad cholesterol deposits in the wall of blood vessels over the years. As the deposition grows with time the lumen of the blood vessels get narrower compromising the blood flow. Sometimes the cholesterol deposits commonly known as plaques may rupture resulting in rapid clot formation, which can compromise the circulation abruptly. When this happens inside the blood vessels of the heart or brain then a person suffers from a heart attack or stroke.

Untreated high cholesterol may lead to premature heart disease, stroke or even death.

WHAT IS THE NORMAL LEVEL OF LIPID OR CHOLESTEROL?

There is no normal level for cholesterol. A certain level may be normal for one but abnormal for another. Moreover, a specialist can only evaluate the abnormal level that needs to be treated.

But in general people with no other cardiovascular risk factors like blood pressure or diabetes, the following are the desirable levels:

- A total cholesterol level under 5.18 mmol/L (200mg/dL)
- LDL cholesterol level under 2.6 mmol/L (100mg/dL)
- HDL cholesterol level above 1 mmol/L (39mg/dL) in men & above 1.2 mmol/L (46mg/dL) in women
- Triglyceride level under 1.7 mmol/L (150mg/dL)

"Lower the better" is the best comment when it comes to cholesterol level.

The harmful effects of cholesterol increase with the presence of one or more factors mentioned below:

1. Smoking
2. High blood pressure
3. Diabetes
4. Family history of premature heart disease, stroke or death
5. Kidney diseases

HOW TO REDUCE CHOLESTEROL?

There are two ways of doing it. Firstly, **lifestyle modification** towards a healthy living and secondly **medications** if indicated.

LIFESTYLE MODIFICATION

This may bring the cholesterol down by 10%.

1. Watch your diet & calories: to keep it simple this is what one should follow.

Cut down on animal fat, red meat, fast food & dairy products (cheese, butter, cream). Less oil, fried foods & salt. More vegetables, fruits & fish.

2. Get rid of unhealthy habits: stop smoking & avoid excessive intake of alcohol.
3. Regular exercise: the minimum that one can do to stay healthy is a 30 minutes of moderate intensive exercises (that increases heart & berating rate with sweating) for 3 days a week. It can be brisk walking outdoors or aerobic exercise indoors.

MEDICATIONS

If someone's cholesterol is high enough with or without other risk factors then a specialist may advise cholesterol-lowering drugs commonly known as **STATINS**. This is required **when cholesterol reduction is required by 30-50%**.

A STATIN is a safe drug and it needs to be taken for long term. One should not stop it after a while, as it's beneficial effect disappears on doing so. If cholesterol level will also go up again on stopping the medication.

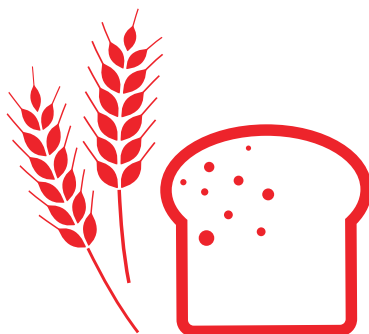
DO YOU HAVE HIGH CHOLESTEROL?

We will be more than happy to advise & guide you on that at AZHD.

HEALTHY DIET

The key to a **healthy diet** is eating the right amount of food for how active you are and eating a range of foods to make sure you are getting all the nutrients and energy your body needs. Eating a healthy, balanced diet can make a significant contribution towards your overall health and wellbeing.

Start with starches



Starchy foods such as bread, cereals, rice, pasta and potatoes give us energy. Choose 'wholegrain' rather than refined varieties. They contain more nutrients and fiber, releasing energy slowly, so they will make you feel fuller for longer.



Have 5 a day

Try to eat at least 5 portions of fruit and vegetables every day: fresh or frozen.

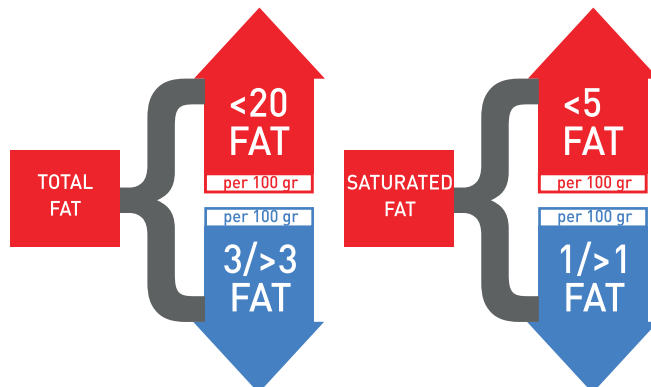


Eat the right fats



We all need to have a small amount of fat in our diets; but what is important is the kind of fat you are eating.

- Eat at least **two portions of fish per week**, one of which should be oily (choose from salmon, mackerel, sardines, pilchards or herring).
- Use **lower fat** versions of **dairy products**, e.g. semi-skimmed or skimmed milk, reduced fat cheese, or use less of the full fat products.
- Choose **leaner meats** (e.g. chicken and turkey) and remove visible fat and skin where possible.
- Use **less fat** in cooking - grill, steam, boil and bake foods instead of frying & roasting.
- **Check food labels to work out if a food is high or low in fat:**



Emphasize on unsaturated fats

of which there are two types, namely **polyunsaturated** and **monounsaturated** fat. These types of fats can actually reduce cholesterol levels and provide us with the essential fatty acids that the body needs.

Omega - 6

Polyunsaturated fatty acids are mainly found in vegetable oils. Omega 6 fats reduce "bad" LDL cholesterol, but too much may also reduce the "good" HDL cholesterol.



Omega - 3

Polyunsaturated fatty acids have now been shown to be particularly important in preventing heart disease and strokes. Good sources are oily fish, as well as nuts and seeds, and their oils such as soya and walnut.



Monounsaturated fats

Are most commonly found in olives, nuts and avocados, olive oil, rapeseed oil, groundnut oil and spreads made from them.

Monounsaturated fats can lower "bad" LDL cholesterol but more importantly they do not affect the level of the protective HDL "good" cholesterol.

Avoid Trans Fats that occurs naturally in foods such as meat and dairy products and are also formed when liquid oils are hydrogenated to make them solid.



Cut down on salt. Most of the salt in our diet comes from processed foods, so cook using fresh ingredients when you can. Check food labels and avoid foods that are high in salt. 1 teaspoon or 6g salt (2.4g sodium) should be your daily maximum.



Cut back on sugar, often known as 'empty calories' as it contains only calories with no other nutrients. Check food labels to work out if a food is high (more than 15g sugars per 100g) or low in sugar (5g sugars or less per 100g).



Maintain a healthy weight, or aim to lose weight if you are overweight.





If you drink alcohol, do not exceed 2-3 units of alcohol a day for men and 1-2 for women.



Avoid smoking.

Include foods enriched with plant stanols/sterols

which are clinically proven to lower 'bad' LDL cholesterol as part of a healthy diet and lifestyle. They are usually sold in the form of fortified yoghurt, orange juice or cereals. Rich natural sources include rice bran, avocado oil, original wheatgerm and extra virgin olive oil.

Start your day off with breakfast

A healthy breakfast provides fuel to help the body function more effectively throughout the day. It should be composed by equal portions of protein and starches.



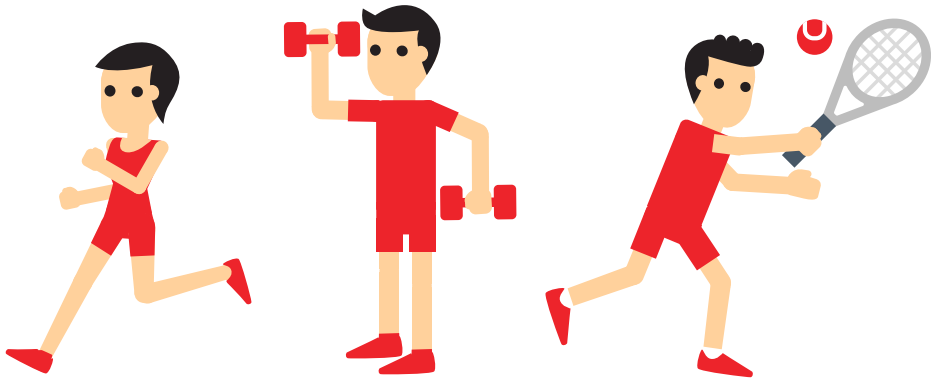
Water is essential for life

Have at least 6 to 8 glasses (1.5 to 2 liters) of water over the day to avoid getting dehydrated – more if you are hot or exercising. Water makes up about two-thirds of our body weight. It's important for this to be maintained because most of the chemical reactions that happen in our cells need water to function properly; from helping the brain to work at its optimum, regulating body temperature, carrying nutrients around the body and flushing out the kidneys to rid the body of toxins.



Stay physically active

The minimum that one can do to stay healthy is a 30 minute of moderate intensity exercise (that increases heart and breathing rate with sweating) for 3 days a week. It can be brisk walking outdoors or aerobic exercise indoors.



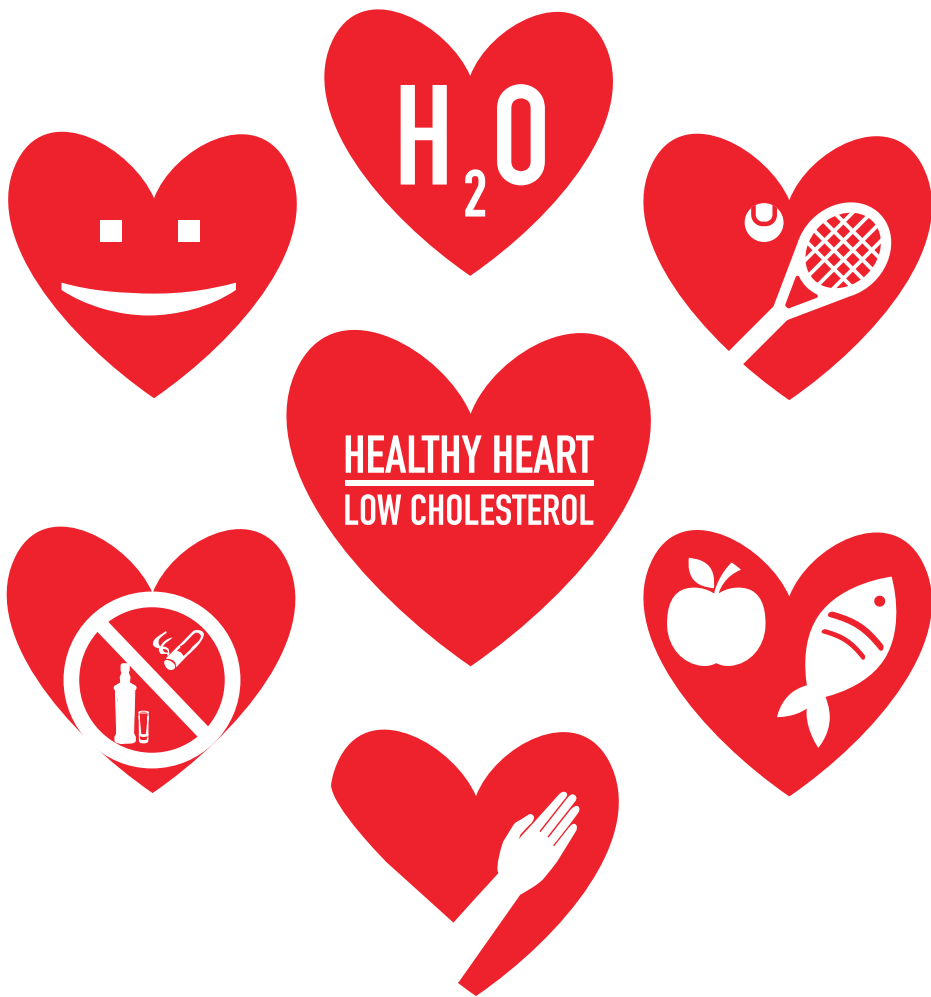
When eating out

- Remember that you don't need to clear your plate! Eat slowly and stop when you're full. Ask for a doggie bag for the rest.
- Have a light starter and try waiting until you have eaten your main course before you order a pudding. You never know, you might already be full!
- Although it feels like good value for money, in fast food restaurants don't be tempted by 'super-sizing' your meal.
- For a healthy dessert option, go for fresh fruit or sorbet. Or share with a friend.
- If you're planning to eat out at night, eat smaller and lighter meals during the day.

At Home

- Beware of "unconscious eating" when we are not aware of how much food we are consuming. e.g. eating in front of the TV.
- Do not "eat from the bag". When snacking, place a few crisps, crackers or biscuits in a bowl.
- Freeze leftovers so that you're not tempted to have seconds.
- Fill up on vegetables. They're low in calories, good for you & count towards your 5 a day.

SUMMARY





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