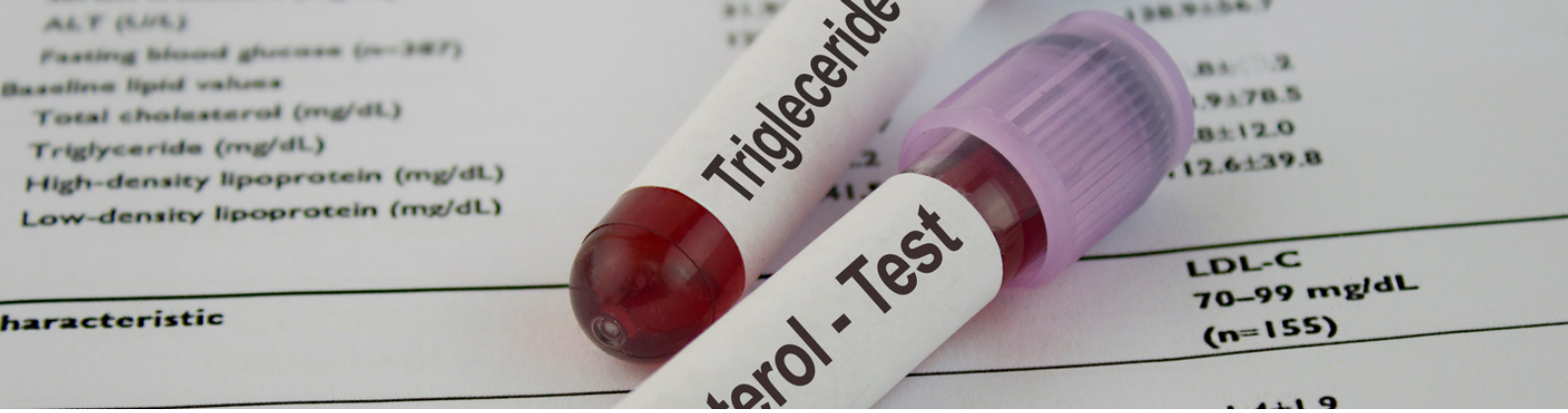
NATMED INTEGRATED MEDICINE

CHOLESTEROL LOWERING GUIDELINES

CHOLESTEROL'S ROLE IN THE BODY

When you hear the word "cholesterol", the connotation is overwhelmingly negative. High cholesterol = higher cardiac risk. While there is truth to this, it is also important to remember that cholesterol is a naturally-occurring compound, made in our liver and playing many important roles in the body.

It is the precursor to reproductive hormones such as oestrogen, progesterone and testosterone, plus aids in the production of bile acids, vitamin D and key brain neurotransmitters. So while keeping your cholesterol levels from getting too high is important, it is also key to remember the other side of the coin – too LOW isn't optimal either.



TESTING CHOLESTEROL LEVELS

When you get a blood test, your practitioner will be looking at the below markers. Let's explain them for you.

HDL	This is the "good" cholesterol. It's key role is to transport cholesterol back to the liver, where it can be broken down and excreted. Healthy levels of HDL are cardiac-protective.
LDL	Low density lipoprotein (LDL) cholesterol – is often characterised as the "bad" cholesterol. It transports cholesterol to our cells. As we said before – getting some cholesterol into our cells is incredibly important for hormonal and brain health. The problem arises when there is too much LDL, which has been linked to an increased risk of atherosclerosis (the build up of fats and other substances on your artery walls). There's a little more to this story though – the smaller the molecule, the more dangerous it can be. Standard blood testing just looks at total LDL levels. There are, however, functional tests that can break this down further, separating and quantifying all lipoprotein sub-fractions including the 'large', less atherogenic LDL-1 and LDL-2 and the 'small', highly atherogenic LDL-3 to LDL-7. Talk to your practitioner about the Liposcreen test for more information.
TRIGLYCERIDES	Triglycerides are another type of fat molecule. High levels have been linked to heart disease and diabetes. Things to consider when your triglycerids are too high include alcohol consumption, smoking, weight gain, inadequate exercise and a diet high in sugar and grain.

DIETARY GUIDELINES

Diet plays a crucial role in healthy cholesterol. Some guidelines are outlined below.

Yet, high cholesterol can also be driven by a multitude of other factors including inflammation, sleep, stress, thyroid function, exercise and antioxidant status. Familial hyperlipidaemia (a genetic predisposition to high cholesterol) is also common, and knowing your family history is key.

FOOD TYPE	ENJOY	AVOID
Meats	• *Lean meat or chicken, trimmed of fat and skin prior to eating* • *Increase fish 2-3 times per week, grilled, steamed or canned rather than battered, crumbed or fried*	• Fatty meats, particularly sausages, mince, bacon and other deli meats
Dairy	• *Dairy alternatives such as plant milks, coconut yoghurt, nut cheeses* • Avoid high sugar content in low fat yoghurts	• Full- fat dairy including cream, butter, yoghurt, milk and cheese
Grains & grain products	• *Low GI grains such as oats, barley, rye and quinoa* • *Best bread options, choose wholemeal sourdough, rye, or oat bran*	• Limit white flour products- pastries, cakes, biscuits and muffins, white rice
Fats	• *Oils such as extra virgin olive oil, cold pressed macadamia oil and flax seed oil* • *Spreads such as tahini and hummus instead of butter*	• Butter, palm oil, margarine, spreads and dips with saturated fats
Sugar	• *Check nutrient information labels on foods for hidden sugars* • *Try dark chocolate as an occasional treat*	• Lollies, biscuits, pastries, honey, jam, maple syrup, chocolate, dried fruits, muesli bars • Processed products with added sugar

Beverages	• *If consuming alcohol opt for red wine and use soda water or mineral water as mixers for other drinks* • *Drink plenty of water (about 1.5- 2 litres per day)*	• Reduce alcohol intake (or better yet, avoid completely) • Fruit juices • Soft drinks/packaged iced tea • Cordial • Added sugar in tea/coffee
Fruits & Vegetables	• *Increase vegetable consumption. Aim for a variety of at least five serves per day. Limit potatoes and sweet potatoes* • *Include 2-3 pieces of fruit per day, choosing from apples, pears, stone fruit, citrus, berries. Restrict tropical fruit such as mango, pineapple and banana*	
Nuts & Seeds	• *Increase nuts and seeds (a small handful per day)* • *Choose raw and unsalted variety of nuts. Include almonds, Brazil nuts, pecans, pistachios, walnuts, cashews and hazelnuts. Choose seeds such as pumpkin seeds, linseeds, sesame seeds and sunflower seeds*	
Pulses, beans & legumes	• *Include up to one cup per day of cooked beans and legumes including broad beans, borlotti, navy, cannellini, adzuki, mung, lima, kidney beans, chickpeas and lentils*	
Exercise	• *Exercise is a crucial part of the success of this diet. Aim for a minimum of 30 minutes of high intensity exercise or one hour of low intensity exercise daily, such as brisk walking, swimming, jogging, gym, exercise class, dancing and bike riding*	

THE IMPORTANCE OF SOLUBLE FIBRE

It is well established that the soluble fibre found in legumes, fruit, and vegetables is effective in lowering cholesterol levels.

The greater the degree of viscosity or gel-forming ability, the greater the effect of a particular type of dietary fibre on lowering cholesterol levels; new, highly viscous blends of soluble fibre provide greater effects than single fibre sources.
The overwhelming majority of studies have demonstrated that individuals with high cholesterol levels experience significant reductions with frequent oatmeal or oat bran consumption.

In individuals with high cholesterol levels (above 200 mg/dl), the daily consumption of the equivalent of 3 g soluble oat fibre typically lowers total cholesterol by 8 to 23%. This is highly significant, as with each 1% drop in serum cholesterol level there is a 2% decrease in the risk of developing heart disease.

One bowl of ready-to-eat oat bran cereal or oatmeal has approximately 3 g fibre. Although oatmeal's fibre content (7%) is less than that of oat bran (15 to 26%), it has been determined that oatmeal's polyunsaturated fatty acids contribute as much to its cholesterol-lowering effects as its fibre content does.

To help lower cholesterol, try to eat 35 g fibre per day from fibre-rich foods. Achieving higher fibre intake is associated not only with lower cholesterol levels but also with lower levels of inflammatory mediators such as C-reactive protein.

FISH OILS TO LOWER TRIGLYCERIDES

The cardiovascular benefits of the long-chain omega-3 fatty acids EPA and DHA have been demonstrated in more than 300 clinical trials.

Supplementation with EPA + DHA has little effect on cholesterol levels but does lower triglyceride levels significantly and has a myriad of additional beneficial effects in protecting against cardiovascular disease.

In general, for cardiovascular protection the dosage recommendation is 1,000 mg EPA + DHA per day, but for lowering triglycerides the dosage is 3,000 to 5,000 mg EPA + DHA.

Tocotrienols: Tocotrienols are part of the Vitamin E family. They are antioxidants that assist in both reducing your production of, and supporting your clearance of, LDL.

GARLIC

The active compound of garlic, called allicin, can help to lower total blood cholesterol and LDL levels, while at the same time increasing HDL levels.