



Cardiovascular or Heart Disease

What is Coronary Heart Disease?

Coronary Heart Disease occurs when the arteries that carry oxygen and nutrients to your heart muscle become clogged and narrow (atherosclerosis). If the blood supply to your heart muscle is reduced, this can lead to symptoms such as chest pain (also called angina), shortness of breath, dizziness, nausea, and sweating.

If a blood clot forms in the narrowed artery and completely blocks the blood supply to part of your heart, it can cause a potentially life-threatening heart attack.

When talking about the management of coronary heart disease it is helpful to have a general understanding of:

- Blood pressure and blood pressure medications
- Cholesterol and cholesterol medications
- Blood clotting and medication to prevent dangerous clotting
- Smoking and its impact on heart disease
- Medication Compliance



What is Blood Pressure?

Blood pressure is the pressure exerted on the walls of arteries by blood as the heart pumps it around the body. Blood pressure does not stay the same – it changes to meet your body's needs.

If a person has high blood pressure all the time (hypertension), the added pressure causes damage to the vessels and the organs they supply which can lead to serious problems like a heart attack, stroke, heart failure or kidney disease. By maintaining good blood pressure control you can prevent these complications occurring.

There are a number of different classes of medications your doctor may prescribe that all work in different ways to reduce blood pressure. Sometimes your doctor will increase your dose of one medication or add a second, and even a third drug class to your daily regime to achieve better blood pressure control.

You will probably already be aware of what your target blood pressure should be, but if you are not sure speak with your doctor or specialist.

What is Cholesterol?

Cholesterol is a fatty substance that is made naturally in the liver and obtained from the food we eat. We need to have some cholesterol because it is used by the body as the essential building blocks of our hormones.

There are 3 commonly measured types of cholesterol or “lipids” that circulate in our blood – LDL, HDL and Triglycerides (TG).

LDL (low density lipoproteins) tends to be sticky and builds up on and in the walls of blood vessels leading to narrowing of the arteries (atherosclerosis). For this reason it is often called “bad cholesterol”.

HDL (high density lipoproteins) helps protect against this build-up of fatty blockages, so it is called “good cholesterol”.

Triglyceride levels are increased by eating a high fat diet, drinking excess alcohol and where there is insulin resistance or diabetes. High blood triglycerides also tend to be associated with low levels of HDL cholesterol.

The aim of cholesterol medications is to reduce the amounts of destructive cholesterol (LDL and TGs) in the blood and increase the levels of protective cholesterol (HDL).

Occasionally fish oil supplements (omega 3) will also be prescribed to help reduce the levels of LDL and TG cholesterol and to increase levels of HDL. Eating at least 2 fish meals each week is recommended for a healthy diet.



Blood Clotting

Blood clots are an important natural defence mechanism that stop us from bleeding excessively when we get a cut or a scratch but they can cause major problems if they form inside an artery that supplies a major organ eg, a blood clot in a coronary artery can cause a heart attack, and a blood clot that forms in an artery supplying the brain can cause a stroke. These types of clots are more likely to form where fatty deposits are present in the blood vessel (atherosclerosis).

Medications that block the formation of blood clots by preventing the clumping together of blood cells (platelets) are called antiplatelet agents. The most common of these agents is aspirin, but sometimes warfarin is also used.

Smoking

Cigarette smoking is one of the modifiable risk factors for coronary heart disease, and one of the most important preventable causes of premature death.

Smoking increases your blood pressure, decreases the amount of HDL (good) cholesterol circulating in your blood and increases the tendency for blood to clot.



Cigarette smoking by itself increases the risk of coronary heart disease but when combined with any of the other 5 factors, it greatly increases your risk. The risk of having a heart attack is increased sixfold in women and threefold in men who smoke compared to non-smokers.

For more information about the dangers of smoking and some advice on where to go to help you quit - see the FAQ section on **Smoking**.

Medication Compliance

“Drugs don't work for patients who don't take them”.

Cardiovascular disease requires long term treatment. People often don't experience any obvious symptoms of high blood pressure or high cholesterol so perhaps they'll forget to take their medicine occasionally, or perhaps they forget to get their prescription filled.



Its estimated that up to ½ of all patients don't take their medication as the doctor prescribed. This can lead to the development of more serious complications like stroke, kidney failure, or heart failure. Up to two thirds of all hospital admissions for cardiovascular complications have been attributed to not taking prescribed medication as directed.

For more information about the problems associated with non-compliance with medications and some advice on how to be more compliant with your medications - see the FAQ section on **Making the most of my Medication**.