



South Eastern Health
and Social Care Trust

Cardiovascular Disease



How to help reduce your risk



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Introduction

You have been given this booklet because a health care professional has considered you to have risk factors which are known to contribute to or increase your risk of developing cardiovascular disease (CVD). A risk factor is something that increases your chance of getting a disease.

Please read on! You will be able to identify your risk factors for CVD by the end of the booklet, but more importantly, you will be better informed how to reduce them.

Your risk factors for Cardiovascular Disease are:

Your height is:

Currently	Date	Your target is
Your weight is:		
Your BMI is:		
Your waist circumference is:		
Your blood pressure is:		
Your cholesterol is:		
Your risk of developing Cardiovascular Disease is:		

What is Cardiovascular Disease?

Cardiovascular disease (CVD) is literally disease of the heart and blood vessels, and covers all diseases that affect the heart and circulatory system of the body, including coronary heart disease (angina and heart attack), hypertension (high blood pressure), stroke and peripheral vascular disease (PVD - any disease or disorder of the circulatory system outside of the brain and heart).

Cardiovascular disease (CVD) develops over many years. During this time the heart's blood supply is being reduced by a build up of fatty substances - known as atheroma - in the coronary arteries (the heart's own blood supply) and many other arteries in the body. This process is more commonly known as 'hardening of the arteries'.

- When CVD affects the heart it can lead to attacks of angina (chest pain) or more seriously to a heart attack.
- If CVD affects the brain, the result can be a stroke - either a major stroke, or a mini-stroke (also known as a TIA or transient ischaemic attack).
- Peripheral vascular disease (PVD) most commonly affects the legs but it can also affect the arms and kidneys. Some people with PVD have no symptoms. However, cramping or pain in the legs usually on walking but also at rest, numbness of the hands and feet, and a feeling of coldness in the legs or feet, are some of the most common symptoms experienced.

Risk factors that *cannot* be changed

Age

The older you are, the more likely you are to develop cardiovascular disease.

Gender

Men are at greater risk of developing heart disease than women of child bearing age. Once past the menopause, a woman's risk is similar to a man's.

Family history

If your father or brother developed cardiovascular disease, that is heart disease or stroke, before the age of 55 years, or your mother or sister developed it before the age of 65 years, then your risk is increased.

Ethnic origin

Certain races can be at higher risk of developing cardiovascular disease, such as for example, those of Afro-Caribbean or Asian origin.

Risk factors that *can* be changed or controlled

Factors which can be changed, treated or controlled to improve health and reduce the risk of cardiovascular disease include:

- Hypertension (high blood pressure)
- Smoking tobacco
- Having a high blood cholesterol (fat in your blood)
- Having diabetes
- Leading an inactive lifestyle
- Being overweight/obese
- Unhealthy eating
- Drinking alcohol to excess/binge drinking.

As well as the risk factors listed, the evidence from research is beginning to recognise that, for some people at least, stress **may** contribute to the development of cardiovascular disease. It could be a number of years before it can be said for certain whether stress **directly** affects the heart and circulatory system.



Hypertension (high blood pressure)

High blood pressure is a major but largely preventable risk factor for cardiovascular disease, and once diagnosed can be treated.

Blood pressure is the force of the blood inside the arteries around the body. High blood pressure means that the blood is being delivered at increased pressure to delicate organs, such as the kidneys and eyes and putting increased strain on the major organs, such as the heart and brain. This then increases the risk of heart attack and stroke.

Blood pressure fluctuates naturally in response to an individual's level of activity. For example, blood pressure rises with exercise and falls with rest.

Most people have no physical signs or symptoms of high blood pressure. Regular check-ups with a doctor are important in the prevention and early detection of high blood pressure.

Whilst most patients do require medications to control high blood pressure, the following lifestyle changes can also help to reduce or prevent high blood pressure:

1. Stopping smoking
2. Losing weight if you need to
3. Eating less fat and more fruit and vegetables
4. Drinking alcohol responsibly
5. Avoiding salt - don't add it to food at the table or when cooking, and don't use salt substitutes such as Lo Salt. Try using herbs, spices, vinegar or mustard to flavour food instead
6. Avoiding processed foods as these are high in salt, sugar and bad fat
7. Increasing and maintaining a good level of physical activity
8. Managing stress in everyday life.

Smoking tobacco

Smoking is a major risk factor for cardiovascular disease, respiratory disease, cancer and other illnesses. Tobacco smoke can also cause gum disease, tooth decay and bad breath. If a woman smokes while pregnant she can harm her unborn baby as well as herself.

In Northern Ireland the risk of having a heart attack is **2 - 3 times greater for a smoker.**

Smoking also **doubles** the risk of suffering a stroke.

Smokers are **ten times** more likely to get lung cancer and emphysema (a chronic lung condition) than non-smokers.

Passive smoking (where you breathe in other peoples' tobacco smoke) also has health risks attached. Regular passive smoking increases the risk of:

- Stroke by 80%
- Heart Disease by 25 - 30%
- Asthma by 40 - 60%
- Lung cancer by 20 - 30%
- Regular ear, nose, throat and chest infections.



Stopping smoking can greatly reduce the risk of developing CVD and many other conditions.

These are only some of the harmful substances contained in cigarettes:

- ~ **Formaldehyde**, used to preserve dead bodies
- ~ **Toluene**, which is commonly used as an ingredient in paint thinner
- ~ **Acetone**, an active ingredient in nail polish remover
- ~ **Ammonia**, (toilet cleaner) which scientists have discovered lets you absorb more nicotine, keeping you hooked on smoking
- ~ **Methanol** (rocket fuel)
- ~ **Methane** (sewer gas)
- ~ **Carbon monoxide** (car exhaust fumes).

If you smoke, you and those around you are also inhaling **arsenic, hydrogen cyanide, lead and mercury**. In all 4,000 harmful chemicals, including 44 types of poison, of which 43 are proven cancer causing substances.

Nicotine also raises blood pressure and makes the blood clot more easily. It is a drug and is more addictive than cocaine or heroin!!! ***BUT it is an addiction which CAN be overcome.***

No matter how old you are or how long you have smoked - it's never too late to stop!

Giving up is not easy, but it is worth the effort to improve your health as well as the health of those around you.

Benefits of quitting include the following:

- Chest infections and colds become less frequent
- The smell of stale tobacco goes from your breath, clothes and hair
- Food and drink tastes and smells much better
- Finances improve. You will save approximately £2,000 per year if you smoked 20 a day
- You are likely to feel good about yourself.

Willpower and determination are vital when attempting to give up smoking, but the benefits are well worth it!

Having a high blood cholesterol

Cholesterol is a type of fat (also referred to as a lipid) which is present in the blood and it plays an essential role in how every cell in the body works. Our body makes most of its cholesterol in the liver, but some also comes from the saturated fat in the food we eat. While it is essential to our bodies, too much cholesterol can be damaging to the blood vessels which supply the heart, brain and other vital organs. Untreated high blood cholesterol will contribute over time to narrowing of these blood vessels and the result can be the development of cardiovascular disease, usually in the form of angina, a heart attack or a stroke.

Most people have no symptoms of high cholesterol, so you will only find out if your cholesterol is high when you have a blood test. This test is called a lipid profile.

'Good' cholesterol (also known as **HDL-cholesterol**) carries excess cholesterol away from our arteries and back to the liver, where it is broken down and recycled. It is beneficial to have a high level of **HDL** and being physically active on a regular basis will help to achieve this.

'Bad' cholesterol (also known as **LDL-cholesterol**) is the most commonly found cholesterol in our bodies, and although the body needs a certain amount of it, when the level becomes too high it begins to block up our arteries and cause problems. For this reason it is necessary to have low levels of **LDL** cholesterol.

What your doctor will be looking at is how much of these two types of cholesterol are in your blood.

Triglycerides are another type of fat in the blood stream, and too much of this type of fat can also contribute to the hardening and narrowing of your arteries. Often, high triglycerides occur along with high levels of cholesterol and so triglycerides are measured along with cholesterol as part of the lipid profile test. When the doctor tells you what your cholesterol level is, this will be the total amount of cholesterol in your blood, but is made up of these three different measurements (**HDL, LDL** and **triglycerides**).

Reducing a high cholesterol level can be achieved by reducing the amount of saturated fat in your diet, keeping physically active on a regular basis, managing your weight, stopping smoking, and not taking excess alcohol. For some people medication will also be necessary along with these lifestyle changes. Not everyone needs to take medication - this will be decided by your GP or a doctor in hospital.

Try to lower your **LDL** or “bad” cholesterol by reducing the amount of saturated fats in your diet. These are found in fatty meat, butter, hard cheese, pastries, biscuits and most processed foods. Instead use **monounsaturated fats** (found in olive oil, grape seed oil, and rapeseed oil) or **polyunsaturated** fats (found in sunflower oil, saffron oil, or groundnut oil). However ***all fats should be limited*** as they are high in calories.

If you have a family history of heart disease, stroke, diabetes, high blood pressure or high cholesterol, then it would be advisable to have your cholesterol checked. Like many of the other risk factors, high cholesterol once detected can be treated and managed.

Diabetes

Diabetes is a condition where there is too much sugar in the blood. High sugar levels can affect the artery walls, by encouraging fatty deposits (atheroma) to develop.

People with diabetes are more at risk of developing a heart attack, stroke or other diseases of the circulatory system. Diabetes can be treated with a healthy balanced diet and frequently medication may also be required. It can run in families and often does not develop until later in life.

Having diabetes more than doubles your risk of developing cardiovascular disease, particularly in **women**.

If you do have diabetes, it's very important to make sure that you control your blood sugar, blood pressure and cholesterol. This will help to keep your risk of cardiovascular disease as low as possible. You can also keep your risk of CVD low by:

- Giving up smoking
- Doing more physical activity
- Eating a healthy, balanced diet
- Keeping your weight and body shape under control.



Leading an inactive Lifestyle

Inactive people have **twice** the risk of developing coronary heart disease compared with active people.

Surveys have shown that 6 in every 10 men and 7 in every 10 women in the UK are not active enough to benefit their health.

However, it is never too late to start doing something. The greatest health benefit will be for those inactive people who start to take regular physical activity which is of moderate intensity (that is any exercise that makes you feel warm, makes your breathing heavier than normal, but you can still talk and exercise at the same time).

How do I know if I'm inactive?

If you add up how much physical activity you have done at a moderate level over the past week, and the total time is less than 30 minutes, you are physically inactive. If you haven't exercised for some time, you need to build up your activity levels gradually, especially if you are over 40 or have a medical condition. Get your Doctor's advice before you start.

What types of activities are best?

The type of exercise that helps your heart the most is called 'aerobic' activity. It uses large muscle groups such as the legs and arms and is a repetitive, rhythmic exercise. Aerobic activity makes the heart and circulation more efficient. An example of aerobic activity includes walking, dancing, or swimming.

There are many different ways to be more active and it is important to find activities which are safe and right for you.

You can start with being more physically active in your daily life:

- Walk rather than use the car
- Get off the bus or train a stop early and walk the rest of the way
- Climb the stairs rather than use the lift.

Once you have become a little more active, start thinking about regular physical activity. Choose things you enjoy, eg. brisk walking, cycling, or dancing. Take it slowly at first and build up gradually to 30 minutes of moderate intensity activity. You don't have to do this all in one go. You can split the 30 minutes into 10, 15 or 20 minute sessions.

Sensible precautions!

- Warm up and cool down:
As with any activity, each time you walk, begin slowly and build up gradually to the main pace. At the end, take time to slow down to allow your heart rate to return to normal, making sure you don't stop suddenly
- If you experience any dizziness, chest pain, feel sick or unwell or have difficulty breathing, stop exercising and if symptoms don't go away or if they return, talk to your doctor
- It is not safe to exercise if you have an infection, eg. a sore throat or a temperature.



Participating in regular physical activity, for 30 minutes a day, 5 days a week can be enough to benefit your health:

- It halves the risk of developing heart disease
- Reduces the risk of having a stroke
- Helps lower blood pressure and keep it low
- Reduces the chances of developing diabetes
- Can help you to lose weight if you are overweight or prevent those pounds creeping on
- Can lower the risk of osteoporosis (thinning of the bones)
- Can help improve your cholesterol levels (fat levels in the blood)
- Reduces the risk of developing peripheral vascular disease.

Physical activity also improves health in other ways. It can:

- Make you feel more energetic
- Relieve stress
- Help you to relax
- Help older people to stay independent or rely much less on other people.

Being overweight or obese

The risk of developing many health problems, such as heart disease, stroke, high blood pressure or diabetes, is increased if a person is overweight. Aim for a healthy weight. Once you achieve this, it is important to keep your weight within the healthy range for your height, as fluctuating up and down can be harmful to health too.

BMI or Body Mass Index, is the measurement of your weight in relation to your height, and is a guide to check if you are a healthy weight. A **BMI** which measures 18.5 – 25 is considered healthy. **BMI** is not accurate however for people who have a lot of muscle (as muscle weighs more than fat), during pregnancy, or for the very elderly. Use the **BMI** chart at the back of this booklet to check if you are a healthy weight for your height. If you have any concerns, do consult your GP.

Your body shape is another way of assessing your risk of cardiovascular disease. People who carry too much weight around their middle have a greater risk of developing CVD, high blood pressure and diabetes.

A waist measurement over 94cm (37”) in men, and over 80cm (32”) in women, has been shown medically to be linked to the development of cardiovascular disease and diabetes. For people of South Asian origin these figures are slightly different. A waist measurement of 80 cm (32 inches) for women and 90 cm (35”) for men puts health at risk.

The best way to lose weight and keep it off in the long term is to **do it gradually**. Remember, maintaining your current weight (that is, not gaining more) is an achievement in itself. Then you can start to make small, long term changes to your eating habits, and become more physically active at the same time. By doing both these things, you are more likely to lose weight and maintain that into the future.

Eating an unhealthy diet

There are two very important points to remember when you are trying to eat healthily:

- * You need to eat the right amount of food for how active you are
- * You need to eat a variety of foods to make sure you're getting a balanced diet.

Eating a well balanced healthy diet can reduce your risk of cardiovascular disease by:

- Reducing cholesterol levels
- Lowering blood pressure
- Maintaining a healthy weight.



1 medium apple



2 broccoli florets



2 halves of canned peaches



1 handful of grapes



1 medium banana



3 heaped tablespoons of peas

Each of the above is one portion.

A healthy balanced diet contains a variety of foods and should include:

- Five or more portions of fruit and vegetables each day - choose a variety of these from fresh, frozen, tinned, dried or juiced
- At least two portions of oily fish a week eg. salmon, herring or mackerel, as these contain omega 3 oils which have health benefits. Choose from fresh, frozen or canned, but remember that smoked and canned fish can be high in salt
- Starchy foods such as wholegrain bread and cereals, brown rice or pasta, and potatoes
- Some protein-rich foods such as lean meat, chicken, eggs, lentils, and some dairy foods
- Snacks can be a variety of fresh fruit, dried fruit, nuts and seeds, low fat yogurts, cheese, milk and spreads and high fibre cereals which helps balance good and bad cholesterol
- Overall your diet should be low in fat (especially saturated fat), salt and sugar.

Your healthy diet should be limited in:

- Processed foods, cakes & biscuits, fried & fast foods – these are high in fat, sugar and salt
- Fatty foods especially meat products such as sausages, sausages rolls, pies and streaky bacon
- Salt - adults should have no more than 6g (a teaspoonful a day). Salt alternatives are not recommended
- Alcohol - always drink within the recommended limit. Alcohol is high in calories and can lead to weight gain.

Alcohol

The effects of alcohol on cardiovascular health are twofold:

- **HARMFUL** (Detrimental effect)
- **BENEFICIAL** (Protective effect)

Harmful effects of alcohol

Drinking alcohol to **excess** increases the risk of damage to health. Alcohol if taken **should** be in moderation and it is best taken within the **recommended daily guidelines**.

Drinking too much alcohol places health at risk in several ways:

- It can be detrimental to the heart and several other major organs
- It can increase the risk of developing cardiovascular disease, potentially leading to high blood pressure, heart attack and stroke
- Over time the heart may become permanently damaged
- Alcohol can cause an irregular heart beat
- The risk of developing many cancers, liver disease and diabetes is also increased
- Excess alcohol can lead to an increased risk of violent and aggressive behaviour in some people and an increased risk of accidental injury.

What are the recommended daily guidelines for adults?

- **Men** should not drink more than **3 - 4 units** of alcohol in any one day and no more than **21 units** of alcohol in a week
- **Women** should not drink more than **2 - 3 units** of alcohol in any one day and no more than **14 units** in a week.

Units should be evenly spread over the week and it is advisable to **avoid alcohol 1 - 2 days in the week**.

The alcohol content of a drink is measured in **units** and one **unit** is equivalent to around 10mls of pure alcohol.

The number of units in any drink is related to the strength of the alcohol content (the concentration) and to the volume of the drink.

Measuring units gives us a way to keep a check on how we are drinking, as alcohol comes in many strengths and sizes of serving. For example:

½ pint of ordinary strength beer = 1 unit

1 standard glass of wine = 1 - 2 units (wines vary in strength)

1 local standard pub measure of spirits = 1 - 2 units.



Did you know?

- The liver is the organ which breaks down most of the alcohol the body consumes and most people can deal with alcohol at a rate of **1 unit per hour**.
- Drink more than **1 unit per hour** and the excess alcohol goes into the blood stream and then throughout the body, thus increasing the risk of damage to health.

It is responsible to keep alcohol intake within the recommended limits. The more you drink above recommended limits, the more harmful alcohol is likely to be to your health.

Beneficial effects of alcohol

Many experts now agree that small amounts of alcohol can be protective for the heart. There is evidence that light - moderate drinking (1 - 2 units a day) could have health benefits for men over 40 and post-menopausal women. This is because alcohol slightly reduces the clotting tendency of blood and so helps reduce the risk of harmful clots and clogging of the arteries.

Small amounts of alcohol also stimulate the liver to produce 'good' cholesterol (HDL), which in turn carries off the harmful cholesterol (LDL) for disposal.

The message is **small amounts of alcohol**.

People who don't usually drink alcohol are not advised to start, just to protect themselves against developing heart disease. There are other ways to reduce the risk of cardiovascular disease such as stopping smoking, taking more exercise and eating a healthier diet.

Visit www.knowyourlimits.info to check how many units are in what you drinking or for further information on alcohol.

Stress

Stress is anything that upsets our physical, emotional or behavioural well-being. It is something we hear a lot about these days and is often used to describe the fast pace of life that many people lead, or the way someone feels when under intense pressure. Stress generally occurs when someone feels unable to cope with the high demand that has been placed on them or not in control of a situation, for example, in their work or home life. Everyone is different in their experience and feelings when it comes to stress. Therefore how they react and cope with it will also be different.

These are just some of the more common stress warning signs and symptoms which people experience:

- **Memory problems**
- **Inability to concentrate**
- **Constant worrying**
- **Irritability or short temper**
- **Inability to relax**
- **Feeling overwhelmed**
- **Disturbed sleep pattern**
- **Eating more or less**
- **Stomach upset.**

Stress in itself isn't necessarily harmful. A little stress can be a positive influence, but too much can affect your general wellness and your health.

We have already mentioned all the well known and proven risk factors for cardiovascular disease.

What we do know about stress to date is that:

- It can lead to an increase in blood pressure and clotting in the arteries
- Stress can affect your 'attitude' or the way you think and make you rely on short term 'fixes' to cope with stress, rather than taking long term action to deal with it. For example, stress can lead to less healthy behaviours such as over-eating, drinking too much alcohol, smoking, or taking other drugs
- Stress may mean you spend less time on the healthy behaviours such as being more physically active.

Taking personal responsibility for recognising and managing stress in your life is the first step to better mental health and wellbeing.

Here are some suggestions to help you cope with stress:

- Plan ahead and be organised, especially if you know a situation causes you stress
- Talk to someone – family, friends or if necessary your GP or another professional
- Take regular exercise, maintain a steady weight and eat a healthy well balanced diet
- Find relaxation techniques that work for you and practice them regularly
- Look at the amount of caffeine and alcohol which you take and cut back if necessary
- If you smoke consider quitting and ask for help - there's lots available
- Learn to avoid or rise above stressful situations, and keep things in proportion
- Be more assertive - learn to say 'no' when you mean 'no'.

Symptoms of a heart attack

Symptoms of a heart attack vary from person to person but the most **common** symptoms include:

- Central chest pain
- The pain can spread to the arms, neck or jaw
- Some people can feel sick or sweaty as well as having central chest pain
- Some people can feel short of breath as well as having central chest pain.

The **less common** symptoms of a heart attack include:

- A dull pain, ache or 'heavy' feeling in the chest
- A mild discomfort in the chest that makes you feel generally unwell
- The pain in the chest can spread to the back or stomach
- The chest pain may feel like a bad episode of indigestion
- Feeling a bit light-headed or dizzy as well as having chest pain

Women may experience different symptoms to men

In particular they may experience shortness of breath, nausea/vomiting and back or jaw pain. Knowing the symptoms of a heart attack and acting fast could save your life or someone else's.

If you or someone you're with has chest discomfort, especially with one or more of the other signs, don't wait.

**Call 999 immediately
if you suspect a heart attack.**

Symptoms of a stroke

The first signs that someone has had a stroke are usually **very sudden**. **FAST (Face, Arm, Speech Time)** can help you recognise the signs of a stroke.

Use **FAST (Face Arm Speech Time)**

- F Facial weakness:** Can the person smile?
Has their mouth or an eye drooped?
- A Arm weakness:** Can the person raise both arms?
- S Speech problems:** Can the person speak clearly and understand what you say?
- T Time to call 999**

Other symptoms of a stroke may include:

- Sudden numbness, weakness or paralysis on one side of the body (signs of this may be a drooping arm, leg or lower eyelid, or a dribbling mouth)
- Sudden slurred speech or difficulty finding words or understanding spoken language
- Sudden loss or blurring of vision in one or both eyes
- Sudden confusion
- Sudden or severe headache with no apparent cause
- Sudden dizziness, unsteadiness or a sudden fall, especially with any of the other signs.

If these signs have all **gone away** after just a few **minutes**, then a **Transient Ischaemic Attack** or **TIA** may have occurred. A **TIA**, (known as a **mini-stroke**), should be treated as an **emergency** because **urgent medical assessment is required**. Contact your GP urgently but if not available go straight to your nearest Emergency Department.

If you see any of these signs and suspect a stroke, act FAST and call 999.

**For further information on heart disease or stroke
you can contact the following organisations:**

British Heart Foundation

Head Office
Greater London House
180 Hampstead Road
London
NW1 7AW

Tel: (020) 7554 0000
email: www.bhf.org.uk

The Stroke Association Northern Ireland

46 Cadogan Park
Belfast
BT9 6HH

Northern Ireland enquiries line:
Tel: (028) 9050 8020
Monday – Friday 9.00am - 5.00pm
website: www.stroke.org.uk
email: northernireland@stroke.org.uk

Northern Ireland Chest Heart & Stroke

Belfast Office
21 Dublin Road
Belfast
BT2 7HB
Tel: (028) 9032 0184
email: mail@nichs.org.uk

North West Office
9 - 10 Spencer House
14 - 22 Spencer Road
Waterside
Londonderry
Tel: (028) 7131 1114
email: mail@nichs.org.uk

website: www.nichs.org.uk

**If you wish to stop smoking these numbers
and websites might be helpful.**

NI Smokers Helpline

Tel: 0808 812 8008

Cancer Focus NI

Tel: (028) 9066 3281

www.want2stop.info

www.givingupsmoking.co.uk

www.quitnet.org

www.ash.org.uk

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