

CARDIOVASCULAR DISEASE (CVD) IS A GENERAL TERM FOR CONDITIONS AFFECTING THE HEART OR BLOOD VESSELS. IT IS ONE OF THE MAIN CAUSES OF DEATH AND DISABILITY WORLDWIDE, BUT THE GOOD NEWS IS THAT IT CAN OFTEN BE PREVENTED BY LEADING A HEALTHY LIFESTYLE.

#### THE HEART

THE HEART IS A MUSCLE ABOUT THE SIZE OF YOUR FIST. IT PUMPS BLOOD AROUND YOUR BODY AND BEATS APPROXIMATELY 70 TIMES A MINUTE. AFTER THE BLOOD LEAVES THE RIGHT SIDE OF THE HEART IT GOES TO YOUR LUNGS WHERE IT PICKS UP OXYGEN. THE OXYGEN-RICH BLOOD RETURNS TO YOUR HEART AND IS THEN PUMPED TO THE BODY'S ORGANS THROUGH A NETWORK OF ARTERIES. THE BLOOD RETURNS TO YOUR HEART THROUGH VEINS BEFORE BEING PUMPED BACK TO YOUR LUNGS AGAIN. THIS PROCESS IS CALLED CIRCULATION.

CVD OCCURS WHERE THERE IS A BUILD-UP OF FATTY DEPOSITS INSIDE THE ARTERIES WHICH LEADS TO AN INCREASED RISK OF BLOOD CLOTS. THIS DOES NOT ONLY AFFECT ARTERIES IN THE HEART BUT ALSO IN THE BRAIN, KIDNEYS AND EYES.

There are many different types of CVD but the main four are:

# 1 CORONARY HEART DISEASE

This is where the flow of oxygen-rich blood to the heart muscle is blocked or reduced. This means there is an increased strain on the heart which can lead to chest pains, heart attacks and even heart failure.

#### 2 STROKES

This is where the blood supply to part of the brain is cut off, either permanently or temporarily. This can cause brain damage and, in severe cases, death.

# **3 PERIPHERAL ARTERIAL DISEASE**

This is where there is a blockage in the arteries leading to the arms or, more usually, the legs. This can lead to pain, numbness, weakness and open sores on the feet and legs.

# **4** AORTIC DISEASE

These diseases affect the aorta which is the largest blood vessel in the body carrying blood from the heart to the rest of the body. If the aorta becomes weak or starts to bulge (an aneurysm) then it could burst and cause life-threatening bleeding.

# **HIGH BLOOD PRESSURE** (HYPERTENSION)

THIS IS ONE OF THE MOST IMPORTANT RISK FACTORS FOR CVD. A CERTAIN AMOUNT OF PRESSURE IN YOUR BLOOD VESSELS IS NEEDED TO CIRCULATE BLOOD AROUND THE BODY. HOWEVER, IF THERE IS TOO MUCH PRESSURE IN YOUR BLOOD VESSELS, IT PUTS EXTRA STRAIN ON YOUR ARTERIES AND HEART, WHICH CAN LEAD TO CVD.

High blood pressure affects more than 1 in 4 adults and the only way of knowing there is a problem is to have your blood pressure checked. All adults should have their blood pressure checked regularly (at least

every year). Having this done is easy and could save your life.

Blood pressure is measured in millimetres of mercury (mmHg) and is recorded as two figures:

#### **SYSTOLIC PRESSURE -**

the pressure of the blood when your heart beats to pump blood out

#### **DIASTOLIC PRESSURE -**

the pressure of the blood when your heart rests in between beats, which reflects how strongly your arteries are resisting blood flow

AT RISK (prehypertension) Systolic: more than 120 mmHg Diastolic: more than 80 mmHg

### **NORMAL**

Systolic: less than 120 mmHg Diastolic: less than 80 mmHg

> **BLOOD PRESSURE LEVELS**

HIGH

Systolic:

140 mmHg or higher Diastolic: 90 mmHg or higher





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For example, if your doctor says your blood pressure is "140 over 90", or 140/90mmHg, it means you have a systolic pressure of 140mmHg

and a diastolic pressure of 90mmHg. A reading over 140/90mmHg indicates high blood pressure (medically known as hypertension) which should be confirmed by tests on separate occasions to reach a diagnosis. A blood pressure reading below 120/80mmHg is ideal.



- AGE (OVER 55)
- OVERWEIGHT
- FAMILY HISTORY OF CVD
- DIABETES
- TOO MUCH SALT
- LACK OF FRUIT AND VEGETABLES
- INACTIVE LIFESTYLE
- ALCOHOL
- CAFFEINE
- SMOKING

IF YOU FALL INTO ANY OF THE GROUPS LISTED **ABOVE, CONSIDER MAKING CHANGES TO YOUR** LIFESTYLE TO LOWER YOUR RISK OF CVD. ALSO, CONSIDER HAVING YOUR BLOOD PRESSURE CHECKED AT LEAST ONCE A YEAR.





# WHAT YOU CAN DO TO LOWER YOUR RISK OF CVD

THE RISK OF CVD CAN BE REDUCED BY EATING HEALTHILY, MAINTAINING A HEALTHY WEIGHT, TAKING REGULAR EXERCISE, REDUCING ALCOHOL CONSUMPTION AND NOT SMOKING. IT IS ALSO IMPORTANT TO MANAGE EXISTING CONDITIONS SUCH AS DIABETES AND TO REDUCE YOUR STRESS LEVELS WHENEVER POSSIBLE.



#### DIET

Cut down on the amount of salt in your food as **salt raises your blood pressure**. Aim to eat less than 5g (0.2oz) of salt a day, which is about a small teaspoonful, and remember that around 75% of the salt that we eat is already in everyday foods such

as bread, breakfast cereal and readymade meals. Don't add salt to your food automatically – always taste it first.

As well as cutting down on salt, remember to eat a low-fat diet that includes lots of fibre (such as wholegrain rice, bread and pasta) and plenty of fruit and vegetables – all of these will help to lower blood pressure. Fruit and vegetables are full of vitamins and minerals, together with fibre, that all keep your body in good condition. Aim to eat at least **five 80g portions of fruit and vegetables** every day. As an approximate guide, one portion would be 3 to 4 tablespoons of cooked vegetables. Tinned and frozen vegetables all count. For fruit, 1 portion is roughly 2 pieces of small fruit such as a plum or 1 piece of larger fruit such as an apple.



# **ALCOHOL**

Regularly drinking alcohol above the levels recommended by the government health authorities will increase your risk of CVD. Staying within the recommended levels is the best way to reduce your risk of developing high blood pressure.

Recommended levels do vary from country to country but in the UK the advice is:

- · not to drink more than 14 units a week regularly
- to spread your drinking over three days or more (i.e. do not drink all the units on one or two days)

How many units of alcohol are in a drink will depend on the alcohol strength and the size of the drink. As a rough guide, in a can of average strength beer, there will be two units. In a large glass of wine there will be 3 units. A single shot of spirits will be one unit. Also remember that alcohol is high in calories which will make you gain weight.



# **WEIGHT**

weight forces your heart to der to pump blood around and this can raise your risk is worth remembering that t a few kilos or pounds will ig difference to your blood and to your overall health.

It is important to **maintain a healthy body mass index** (BMI) calculated from your weight, height and age and this can be done by your doctor at a medical or by following online calculators such as:

www.nhs.uk/health-assessment-tools/calculate-your-body-mass-index/calculate-bmi-for-adults



#### **EXERCISE**

Being active and taking regular exercise helps to keep your heart and blood vessels in good condition.
Regular exercise can also help you lose weight which will also help lower your risk of CVD.

You should do at least **150 minutes** of moderate-intensity aerobic activity (such as cycling or fast walking) every week. For it to count, the activity should make you feel warm and slightly out of breath. You do not have to have access to a gym or a running track to take exercise. There are lots of online exercise programmes and ideas that can be done in a very small space and with no special equipment.



#### **SMOKING**

Smoking puts you at much higher risk of CVD as it will damage and narrow your blood vessels. If you smoke and have high blood pressure, your arteries will narrow much more quickly and your risk of heart or lung disease in the future is dramatically increased.



#### CAFFEINE

Drinking more than **four cups** of coffee a day may increase your blood pressure. If you are a big fan of coffee, tea or other caffeine-rich drinks (such as cola and some energy drinks) you should consider cutting down. It is fine to drink tea and coffee

as part of a balanced diet, but it is important that these drinks are not your only source of fluid.