Session 5

Introduction to screening

The aim of the session is to understand:

- ✔ **Screening for coronary heart disease.**
- ✔ **Self-assessment for coronary heart disease.**
- ✔ **Screening by health professionals.**

The information you need to get across is:

10 minutes

What is screening for coronary heart disease?

Screening means to examine or check a person for a disease or diseases. For coronary heart disease, the measurements that you can check that affect your risk are:

- waist measurement
- weight
- blood pressure
- blood cholesterol level
- blood sugar level.

What is self-assessment?

The following measurements can be checked by a health professional or by yourself:

- waist
- weight
- Body Mass Index (BMI) (See Session 13 on page 71.)

Your body shape

Everyone who carries too much weight around their middle has a greater risk of developing coronary heart disease, high blood pressure and diabetes. One way of finding out if your body shape is increasing your risk is by measuring your waist.

People of South Asian background are more likely to have a higher proportion of body fat to muscle than the rest of the UK population. They also tend to carry this fat around their middle. So South Asians have a greater risk of developing problems such as coronary heart disease at a lower waist size than other people in the UK.

Body Mass Index (BMI)

Body mass index measurement (BMI) is one that relates your weight to your height. BMI is usually expressed as a range, such as ideal weight, overweight or very overweight. BMI, however, should not be used in isolation to determine if someone is a healthy weight. It is important to look at body shape too.

BMI and South Asians

For South Asians, BMI may not be a reliable measurement to help assess their coronary heart disease risk as they are at higher risk at a lower BMI. This is because South Asians have a tendency to carry larger amounts of body fat around their middles (increasing the risk of high blood pressure and diabetes), and because body fat weighs less than muscle. So, for example, a South Asian may have the same BMI as a European, but their risk of developing coronary heart disease could be greater because their BMI is made up of more body fat than muscle[3].

Checklist

Session time:
30 minutes

You will need

- **Training card 5**
- **Visual card 5**

- **Summary sheet 5** USB

- **Case study 5** USB

What screening needs to be done by health professionals?

Everyone over the age of 40 should see their GP for a free **cardiovascular risk assessment** to find out their risk of getting coronary heart disease, having a heart attack or having a stroke.
This is sometimes called a **heart health assessment** or a **heart health risk assessment**. The assessment gives your GP information about your future risk and what they can advise you to do to keep your heart healthy.
There are several different tests to assess people's risk of coronary heart disease. Health professionals may recommend different tests for different people, depending on the person's family history:

Blood cholesterol

This is a blood test to find out your cholesterol level. It is especially important if you have a family history of high cholesterol. If you're having a risk assessment, it is likely that you will have your cholesterol measured as part of the assessment. You may be asked not to eat or drink anything other than water for 12 hours before having your blood test. (Please see the background information section for more information on cholesterol.)

Blood sugar level

This is a blood test to find out how much sugar you have in your blood. It will tell your doctor if you have, or are at risk of developing, diabetes (see Session 11 on page 53). It is done at the same time as the cholesterol test.

Blood pressure

This will tell you if your blood pressure is too high (see Session 7 on page 36). If it is, and your doctor thinks that you are at risk of developing coronary heart disease, they will arrange for you to have several readings taken over a couple of weeks. This will establish whether you have a consistently high blood pressure reading.

You can have your blood pressure and cholesterol measured by various people, eg, by the practice nurse at your local GP surgery or by some pharmacists. Although many people, such as pharmacists, are trained to carry out these tests, they do not know your full medical history, and therefore the results may not be entirely accurate. **If you have one or more of the risk factors mentioned above, you should see your doctor for a full risk assessment.** Home testing kits are not a suitable replacement for the information that your doctor can give you.

Pre-session preparation

Print out *Summary sheet 5* and *Case study 5* USB

Activities

Key activity: Case study – risk factors for coronary heart disease (small groups/pairs)

20 minutes

Case study 5

Name: Vinda Kaur
Age: 65
Gender: Female
Ethnicity: South Asian
Waist measurement: 90cms (about 35.5 inches)

Vinda Kaur is 65 years old, and lives with her husband, son and daughter-in-law. She is overweight, with a waist measurement in the 'health is at high risk' category, and knows that she should try to lose some weight.
She wants to change her diet, so that she eats more healthily and loses weight, but she doesn't want to offend her daughter-in-law by commenting on her cooking. When Vinda Kaur visits her GP surgery they tell her she needs to lose weight and change her diet, but because of her weight, she finds exercising difficult. The whole family love their food, and regularly eat snacks of lamb koftas and vegetable pakora.

Hand out the case study to each small group/pair.
Ask them to answer the following questions on the case study: **(10 minutes)**

1. What are Vinda Kaur's risk factors for coronary heart disease?

Vinda Kaur's known risk factors are:
- physical inactivity
- being overweight (waist measurement is in the 'health is at high risk' category)
- ethnic background.

Vinda Kaur may have unknown risk factors including:
- family history of heart disease
- smoking
- high blood pressure
- high cholesterol
- diabetes.

2. Which of her known risk factors are modifiable, and which are non-modifiable?

Vinda Kaur's modifiable risk factors are:
- physical inactivity
- being overweight.

Her non-modifiable risk factors are:
- ethnic background.

3. What screening should she have to assess her risk of coronary heart disease?

Vinda Kaur has several risk factors that mean she is at increased risk of developing diabetes and coronary heart disease. These include:
- being physically inactive
- having a waist measurement over 80cms
- being overweight.

Although she can measure these herself and she can have her blood pressure and cholesterol checked at a pharmacy, she should be advised to see her doctor or nurse for a full cardiovascular risk assessment.

4. Ask them to make suggestions about where Vinda Kaur could be screened?

Vinda Kaur can record the following things about herself:
- weight
- level of physical activity
- waist measurement.

A health professional will need to assess the following, which could be done at a pharmacy or GP surgery:
- blood pressure
- blood cholesterol level
- blood sugar level.

Ask each group to nominate a spokesperson and take it in turns for each group to feed back.
Ask them to write their answers on a flipchart. **(10 minutes)**

At the end of the session

Hand out *Summary sheet 5* USB

Background information

Although you now have the basic information you need to deliver Session 5, here's some more detail you might find useful.

Blood cholesterol

Cholesterol is a fatty substance found in the blood, mostly derived from the saturated fat in the food you eat. Although it plays a vital role in helping your body cells to work, too much cholesterol can increase your risk of coronary heart disease. There are two types of cholesterol:

- **LDL** is a 'bad' type of cholesterol
- **HDL** is a 'good' type of cholesterol which removes LDL from the bloodstream.

Triglycerides are another type of fatty substance in the blood. They are found in foods such as dairy products, meat and cooking oils. If you are very overweight, eat a lot of fatty foods or drink too much alcohol, you are more likely to have a high level of triglycerides. Total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL) and triglyceride levels are all measured using a blood test. They are measured in units called millimols per litre of blood or 'mmol/l'.

Familial hypercholesterolaemia

About 1 in 500 people in the UK have inherited high blood cholesterol due to a condition called **familial hypercholesterolaemia** or **FH**. In people with FH, the way LDL cholesterol is removed from the blood circulation does not work as effectively as normal and their cholesterol levels may be abnormally high. So an adult with FH may have a cholesterol level of between 8 and 12 mmol/l, and sometimes much higher. Children and young women may have lower levels, but the level is usually above 6.7 mmol/l in children.

For more information on LDL, HDL and triglycerides please see Session 12b on page 62. For more information on blood pressure readings please see Session 7 on page 36.

Primary and secondary prevention

If someone has already been diagnosed with coronary heart disease, diabetes or they have had a cardiac event (angina or a heart attack), their care is governed by treatment guidelines that deal with **secondary prevention** of heart disease, ie, trying to stop the patient's condition getting worse, or helping to reduce their chances of having a heart attack. If someone asks for information or advice on secondary prevention you should ask them to contact their GP or the BHF Heart Helpline. For individuals that have not had a cardiac event, or have not been diagnosed with coronary heart disease their treatment guidelines come under **primary prevention**.

Everyone is different. Two people with the same condition may need different treatment and specialist advice from a qualified healthcare professional.

For more information

bhf.org.uk

BHF Heart Helpline: 0300 330 3311 – for information and support on anything related to heart health. This service is available in English only.

BHF booklets:

Keep your heart healthy (in English, Polish and Welsh)

Familial hypercholesterolaemia (in English)

To order these free resources, call the **BHF Orderline** on **0870 600 6566**.