How can I help reduce healthcare associated infections?
Infection control is important to the well-being of our patients and for that reason we have infection control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the main entrance of the hospital and at the entrance to every clinical area before coming in to and after leaving the clinical area or hospital. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser. Staff will let you know if this is the case.

www.buckshealthcare.nhs.uk

Healthy Eating for Heart Health

Patient information leaflet
If you require a translation or an alternative format of this leaflet please call 01296 316042

Safe & compassionate care, every time

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What is Cardiovascular Disease (CVD)?

Cardiovascular disease (CVD) is a broad term and includes many diseases affecting the heart and blood vessels. The most common form of CVD is atherosclerosis (narrowing or blocking of the blood vessels). This is the most common cause of heart attacks.

Risk Factors
There are many different risk factors. Some risk factors you cannot do anything about, such as your gender, age, ethnicity and family history.
There are other factors, however, that you may be able to change through diet, medications, lifestyle and habits, e.g.:
• being overweight or obese
• abnormal blood lipids (fats) see page 11
• being physically inactive
• having high blood pressure
• smoking

What can I do?
You can help to reduce your risk of developing heart disease or having another cardiac event by:
• avoiding smoking
• losing weight (if necessary)
• being as active as possible
• eating a healthy, balanced diet which is good for your heart.
Overweight

Being overweight and carrying excess fat increases your risk of high blood pressure, diabetes and therefore CVD. Maintaining a healthy weight may reduce the risk of developing these and may help to manage these conditions if you already have them.

**Body Mass Index** (BMI) – the ratio of weight to height – is used to determine if someone is overweight or obese. Use the chart on page 4 & 5 to work out your BMI.

- **Healthy range** = 18.5 – 24.9 kg/m$^2$
- **Overweight** = BMI 25 kg/m$^2$ – 29.9kg/m$^2$
- **Obese** = BMI >30kg/m$^2$

People of Asian background have a higher percentage of body fat than Caucasian people of the same age, sex and BMI and are therefore advised to aim for a lower BMI.

**Body Shape**

Waist circumference can help to identify where the excess fat is distributed. Excess fat around the abdomen (apple shape) carries a greater risk of CVD than excess fat around the hips and thighs (pear shape).

Measure the widest part of your waist (approx. 1 inch above the bellybutton). If your waist is greater than the figures given below, you may be at increased risk of CVD.
### Body Mass Index Chart

#### Height in m Height in ft/inches

<table>
<thead>
<tr>
<th>Height in m</th>
<th>Height in ft/inches</th>
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<tbody>
<tr>
<td>1.33 6ft 4&quot;</td>
<td>13 14 15 16 15 17 16 17 18 18.7 19 19 20 20 21 21 22 22 23</td>
</tr>
<tr>
<td>1.38 6ft 2&quot;</td>
<td>14 15 16 16 17 18 18.1 18.6 19 19 20 20 21 21 22 22 23 22 23</td>
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<td>1.42 6ft 1&quot;</td>
<td>15 16 17 17.1 18.1 18.7 19 19 20 21 21 22 22 23 23 24 24 25 25 26</td>
</tr>
<tr>
<td>1.50 5ft 10&quot;</td>
<td>15 17 18.5 19 19 20 21 21 22 22 23 23 24 24 25 24 25 25 25 26 26</td>
</tr>
<tr>
<td>1.55 5ft 9&quot;</td>
<td>16 17 18.5 19 20 20 20 20 22 22 23 23 24 24 25 25 25 26 26 26 26</td>
</tr>
<tr>
<td>1.57 5ft 8&quot;</td>
<td>16 18.2 19 20 20 21 21 22 22 23 23 24 24 25 25 25 25 26 26 27 27</td>
</tr>
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<td>1.57 5ft 7&quot;</td>
<td>17 18.5 20 20 21 21 22 22 23 23 24 24 25 25 25 26 26 26 27 28 28</td>
</tr>
<tr>
<td>1.60 5ft 6&quot;</td>
<td>17 19 20 21 22 22 23 24 24 25 25 25 25 26 27 27 27 28 28 29 29</td>
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<tr>
<td>1.65 5ft 5&quot;</td>
<td>18.1 19 21 21 22 23 23 24 24 25 25 25 26 27 27 27 27 28 28 29 29</td>
</tr>
<tr>
<td>1.65 5ft 4&quot;</td>
<td>18.3 19 21 22 22 23 23 24 24 25 25 25 26 27 27 27 27 28 28 29 30</td>
</tr>
<tr>
<td>1.52 5ft 4&quot;</td>
<td>19 20 22 22 23 24 25 25 26 27 28 28 29 30 30 30 30 30 30 31 31</td>
</tr>
<tr>
<td>1.57 5ft 3&quot;</td>
<td>19 21 22 23 24 25 25 26 27 28 28 29 30 30 30 30 30 30 30 31 32</td>
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<td>1.57 5ft 2&quot;</td>
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</tr>
<tr>
<td>1.52 5ft 1&quot;</td>
<td>21 23 25 25 26 27 28 29 30 31 32 32 32 32 32 32 32 32 32 33 35</td>
</tr>
</tbody>
</table>

#### Weight in lbs

| Weight in lbs | 111 | 119 | 126 | 133 | 137 | 141 | 146 | 150 | 155 | 159 | 164 | 168 | 172 | 177 | 181 |

#### Weight in kg

| Weight in kg | 50  | 54  | 58  | 60  | 62  | 64  | 66  | 68  | 70  | 72  | 74  | 76  | 78  | 80  | 82  |

### Notes

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Food Labels

Most products have nutritional information on the label. Some products also have colour coding on the front, which tells you at a glance if the food has high (red), medium (amber) or low (green) amounts of fat, saturated fat, sugars and salt per 100g of the product – see chart below.

Most pre-packed foods show a list of ingredients. They are listed in order from largest to smallest amount. So if the first few items are high in fat, like butter, cream, oil, then the product is a high fat food.

**Low fat** means there is no more than 3g fat per 100g

**Reduced fat** means that the product is at least 30% lower in fat than the standard version of the product

**Light/Lite** mean at least 30% lower in one value than the standard product, e.g. calorie or fat content

**No Added Sugar** means no extra sugar has been added, however, it could contain naturally occurring fruit sugar (fructose) or milk sugar (lactose).

![Body Mass Index Chart](image)
Help with Losing Weight

To achieve weight loss:
- The energy you burn from being physically active must be greater than the energy you consume from food and drink—see image below.

Small, simple changes can help you to balance your food and drink choices as well as the amount of food and drink taken in.

If you would like further help with losing weight, please contact your healthcare professional who can put you in contact with a Community Dietitian or service which may suit you. Alternatively, please refer to the Live Well Stay Well Bucks Service at www.livewellstaywellbucks.co.uk.

The Cardiac Rehabilitation Team are currently offering a 10 week weight management service in Wycombe Hospital. Please contact your cardiac rehabilitation team for further information.

Other Ways to Protect your Heart

As well as being a healthy weight and shape, the following can help to protect your heart.

Cut down on salt
Eating less salt can lower your risk of high blood pressure, which is linked to heart disease and stroke. No more than 6g/day (1 teaspoon) is recommended but most of the salt we eat is already in our food and drinks.

Some tips include:
- Reduce ready-made meals and processed foods
- Choose unsalted breakfast cereals, such as a low salt and sugar muesli, shredded wheat or puffed wheat.
- Use herbs and spices instead of salt to flavour foods
- Remove salt from the table to reduce temptation
- Check labels – choose low salt versions where possible.

Reduce alcohol Intake
Drinking more than the sensible limit of alcohol can lead to heart muscle damage, high blood pressure, stroke and some types of cancer. All alcohol is high in calories so limit your intake if you want to lose weight.

It is recommended that men and women should not regularly drink more than 14 units per week. Try to have alcohol free days weekly and do not binge drink.

Choose low calorie/sugar free mixers; try a wine spritzer with sparkling water, choose half pints/small can/small glass/single measure; limit the number of drinks.

1 unit = 125 ml glass red/white wine
25 ml of spirits
50 ml sherry
½ pint normal strength beer
What about my Cholesterol?

Plant sterols and stanols
People with high cholesterol may benefit from having foods and drinks that have added plant sterols and stanols (fortified).

There is a range of dairy foods which have been fortified with plant stanols and sterols. Both branded and own-label products are available. These include fortified milk, spreads, yoghurts and yoghurt drinks.

*If you do choose* to use a plant sterol or stanol product in addition to the changes outlined, they need to be eaten every day, with meals, and in the right amount. This can help to lower your cholesterol levels by approximately 10%.

To be effective any plant sterol or stanol fortified foods or supplements need to be consumed at meal times. This is because they work by mixing with the food in your intestines.

To provide 1.5-3g (the effective dose) per day of plant sterol/stanol you need to consume either:
- one plant sterol or stanol fortified mini yoghurt drink per day or
- 2-3 portions of foods providing at least 0.8g of plant sterol per day:
  - two teaspoons fortified spread
  - one fortified yoghurt
  - a glass (250ml) of fortified milk.

The EatWell Guide

The Eatwell Guide (on the next page) describes the variety and proportions of foods and drinks to consume in a healthy, balanced diet. A variety of items from different food groups is needed to provide the range of nutrients your body needs.

The Food Groups of the EatWell Guide include:

- Fruit and vegetables
- Potatoes, bread, rice, pasta and other starchy carbohydrates
- Dairy and alternatives
- Beans, pulses, fish, eggs, meat and other proteins
- Oil & spreads
- Fluid

Websites

You may find these websites useful:

NHS Choices - [www.nhs.uk](http://www.nhs.uk)
One You – Healthy Lifestyle information - [www.nhs.uk/oneyou](http://www.nhs.uk/oneyou)
Change4Life campaign - [www.nhs.uk/Change4Life](http://www.nhs.uk/Change4Life)
British Heart Foundation - [www.bhf.org.uk/heart-health](http://www.bhf.org.uk/heart-health)
British Dietetic Association Food Fact Sheets - [www.bda.uk.com/foodfacts/home](http://www.bda.uk.com/foodfacts/home)
Active Bucks – to help increase physical activity - [http://activebucks.co.uk/](http://activebucks.co.uk/)
Diabetes UK - [www.diabetes.org.uk](http://www.diabetes.org.uk)
Eating more fibre, including wholegrains

Foods high in fibre – especially those high in soluble fibre – help to lower total cholesterol and LDL by reducing the amount of cholesterol that is absorbed into the bloodstream from your intestine. Good sources of foods that are high in soluble fibre include oats, barley, pulses such as baked beans, kidney beans, soya beans, peas, lentils and chickpeas, and certain fruit and vegetables like apples, pears, and sweet potato.

Foods high in fibre also help to fill you up, which can be helpful if you are trying to lose weight. Eating more fruit and vegetables can help you meet your fibre needs as well as helping to lower the overall risk of heart disease.

Eating a range of unsalted nuts

Unsalted nuts contain healthy unsaturated fats, antioxidants and fibre which can help lower total cholesterol and LDL. However, nuts and seeds also contain a lot of calories, so keep to the recommended one handful (30g) of unsalted nuts a day. There are lots of different nuts to choose from including almonds, pistachios, walnuts, pecans, cashews, and peanuts.

Eating soya

Soya products are naturally low in saturated fat and a good source of soluble fibre, antioxidants and protein. When used in place of high saturated fat foods, they may help to lower your cholesterol. Examples include: soya nuts, tofu (silken hard variety, marinated), soya mince, or soya milk (unsweetened).
What About my Cholesterol?

Choosing healthier fats – To help your cholesterol level, reduce saturated fats and trans fats and replace them with monounsaturated fats and polyunsaturated fats.

The Importance of Each Food Group

**Fruit and vegetables**
- Provide a variety of vitamins, minerals and dietary fibre.
- Eat a rainbow of colours of fruit and vegetables to achieve a range of vitamins and minerals and other micronutrients.
- Aim to eat at least 5 portions or more of vegetables and fruit per day (1 portion = size of your fist).
- Avoid drinking more than 1 small (150ml) glass of any fruit juice per day as it is high in natural sugar.

**Potatoes, bread, rice, pasta and other starchy carbohydrates**
- Provide energy, fibre and B vitamins.
- Opt for wholemeal/wholegrain options that help fill you up and maintain good bowel habits.
- These include: potatoes, wholewheat pasta, yams, cassava, chapatti, and other breads, grains such as bulgar wheat, buckwheat, quinoa, wholegrain rice and low sugar/high fibre breakfast cereals, e.g. Shredded Wheat.
- It is recommended to have some of these foods at each meal but it is often easy to have more of these foods than we need. When trying to lose weight, aim for a ¼ of your plate to be from this group.

**Dairy and alternatives**
- Provide calcium for strong bones and helps prevent osteoporosis.
- Low fat dairy products still have as much calcium and protein as full fat alternatives. Ensure dairy alternatives, e.g. soya, almond etc. have added vitamins and minerals. Unsweetened versions are best.
- Aim to have approx. 3 portions a day e.g. matchbox size of cheese, glass of milk and a pot of yogurt.
Beans, pulses, fish, eggs, meat and other proteins
• Provide essential proteins, minerals and healthy oils.
• Aim to have a portion from this food group at each meal.
• Aim to have 2 portions of fish per week, including one oily fish, such as mackerel, pilchards or salmon.
• To reduce saturated fat, try a meat-free meal each week. Try eggs, beans, lentils, soya mince, tofu or unsalted nuts instead.
• Limit consumption of red meat and processed meats (<70g/day) such as beef, lamb, pork, sausages and pies which contain saturated fat which can raise your cholesterol – see cholesterol section, page 11.

Oils and spreads
• A small amount of fat is needed as part of a healthy diet.
• Some fats and oils are a source of essential fatty acids and fat soluble vitamins, e.g. vitamin A, D and E.
• Vitamin D helps to absorb calcium. It is mostly made by the action of sunlight under the skin. People over 65, those who cover up when outside, darker skin tones, people who spend little time outside may be at risk of low vitamin D. Speak to your GP if you feel you would benefit from a supplement.
• All types of fat are high in calories. Aim to reduce saturated fat and replace some of these with unsaturated fats – see cholesterol section.

Foods high in sugar/salt
• No specific recommendations for these foods and drinks. A high intake of sugar can lead to weight gain and tooth decay.
• Limit confectionary, pastries, biscuits, fast food/takeaways, and sugar in hot drinks and on cereals.

Remember fluid
• Aim for 2 litres per day (8-10 glasses) to avoid dehydration and constipation. Avoid drinks that contain sugar as these can lead to weight gain and tooth decay.

What About my Cholesterol?
Choosing healthier fats
Foods containing fat are made up of a combination of saturated fats, monounsaturated fats and polyunsaturated fats.

Reducing the total amount of fat you eat – especially if you are overweight will be beneficial to your health. Choosing healthier fats can help protect your heart, but remember all fats are high in calories.

To help improve your cholesterol level, cut down on saturated fats and trans fats and replace them with monounsaturated fats and polyunsaturated fats.
• **Saturated fats** are unhealthy fats and can increase total cholesterol and LDL. LDL increases the risk of fatty deposits developing in your arteries.
• **Trans fats** are also unhealthy fats which can increase LDL and lower HDL.
• **Monounsaturated fats** are healthy fats and can lower the LDL level without lowering the level of HDL.
• **Polyunsaturated fats** are also healthy fats and include Omega-3 and Omega-6 fats (see page 16).
  • Omega-3 fats in particular can help to lower triglyceride levels, help prevent the blood from clotting and help keep the heart rhythm regular.
  • Aiming for a portion of oily fish per week can help to improve Omega-3 levels (see page 16. Vegetarian sources of Omega-3 are also given here.)
  • There is no evidence that Omega-3 supplements helps to prevent CVD. Fish oil supplements may not suit everyone. Please discuss with your GP or Dietitian if you are considering this.
  • In general, we tend to get enough Omega-6 fats by eating a healthy, varied diet.
What About my Cholesterol?

How do I lower my cholesterol?
Choosing a healthier diet can help improve your cholesterol levels. Making healthy changes to your diet benefits your heart in other ways too. For example, it can help protect against high blood pressure, diabetes and gaining weight.

The next section will expand on some ways that can help you to lower your cholesterol, including:

- **Choosing healthier fats**, including Omega-3 fats (see page 16)
- **Eating more fibre**, including wholegrains (see page 17)
- **Eating a range of unsalted nuts** (see page 17)
- **Eating soya** (see page 17)
- **Using plant sterols and stanols** (see page 18)
- **Other ways to help you protect your heart:**
  - Cut down on salt (see page 19)
  - Reduce alcohol intake (see page 19)

What is cholesterol and what does “blood lipids” mean?
Blood lipids is the name for all the fats in the blood, including cholesterol and triglycerides (page 13).

Cholesterol is a waxy substance which is mainly made in the body. Without cholesterol your body would not work as it forms part of the outer shell of every cell.

However, raised or too much cholesterol in the blood increases the risk of fatty deposits developing in your arteries (atheroma) and therefore increases the risk of CVD.

Ask your Doctor or Dietitian what your blood lipid results mean.

The liver makes some of the cholesterol in your body from the saturated fats in the foods you eat.
Dietary Cholesterol

Very little dietary cholesterol is found in foods, except for eggs, liver and kidneys, and seafood such as prawns. The cholesterol found in these foods does not contribute very much to the level of cholesterol in your blood. However, if you have familial hypercholesterolaemia (FH) you will need to be more careful about eating foods with cholesterol. Foods containing saturated fat and trans fat raise your blood cholesterol level (see pages 15-16).

LDL (“bad”) and HDL (“good”)

Cholesterol is carried through the blood system on lipoproteins. There are 2 main types of lipoproteins – LDL (low density lipoprotein) and HDL (high density lipoprotein).

LDL carries cholesterol from the liver through the bloodstream to the cells and is known as the “bad” type of cholesterol.

HDL returns extra cholesterol that is not needed from the bloodstream to the liver. HDL is a “good” type of cholesterol because it removes the cholesterol that is not needed from the blood rather than depositing it in the arteries.

What About my Cholesterol?

Triglycerides

Triglycerides are another type of fatty substance in the blood. People who are overweight, eat a lot of fatty and sugary foods, or drink too much alcohol are more likely to have a high triglyceride level.

People with a high triglyceride level have a greater risk of heart disease and stroke than people with lower levels, particularly if you have high cholesterol, diabetes, high blood pressure or you smoke.

Total Cholesterol

Your total cholesterol level is the total of the LDL, HDL and other fats in your blood.

People with a high total cholesterol have a higher risk of heart disease than those with lower levels. The risk is particularly high if you have a high LDL and a low HDL.

What causes high cholesterol?

Some people have an inherited condition which causes high cholesterol, known as Familial Hypercholesterolaemia (FH). Some people also have high cholesterol as a result of other health conditions or diet and lifestyle.

A common cause of high blood cholesterol is eating too much saturated fat, having too much alcohol and carrying weight around your waist.