

# essential health check

# Keeping track of your health has never been easier

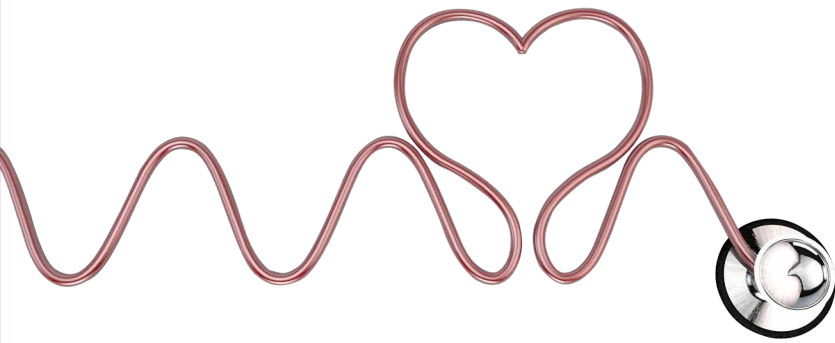
The Essential Health Check measures **vitamin D, vitamin B12, iron deficiency, cholesterol and triglycerides**, and **liver function levels** in your blood. These results provide essential information about your health that you can act upon.

Your health is influenced by many factors including your age, lifestyle, family history and diet.

The fact that you have taken the Essential Health Check indicates that you'd like to see if your diet and lifestyle could be affecting key health markers or you are aware there are risks that might be affecting your health. On the first page of your results letter you will see a summary and recommended actions. The next pages provide the details showing numerical results and units of measurement for each individual parameter e.g. 15 nmol/L.

**These numbers and units of measurement are important measures of your health.**





The highlighted visual scale shows whether each test result is acceptable (**Green**), requires lifestyle changes (**Amber**) or whether a visit to your GP is recommended (**Red**).

If results are **Green** that's great news and unless you feel unwell or suspect that you have a medical condition then you don't need to take any action in these areas. We recommend that you retest at least annually to keep your health in check.

If results are **Amber** then lifestyle changes are required which may involve dietary changes or taking a supplement. These lifestyle changes are summarised in the following pages and retest guidance is provided with your results.

If results are **Red** then a visit to your GP is recommended.

*If you are already under supervision from your GP for a medical condition then we advise that you take your results with you to show your GP at your next visit.*

**Take action!** Use this guidebook to find out more about the tests that you have taken. Identify the lifestyle guidance sections that are relevant for you, review any lifestyle changes required and make a plan.

Arrange an appointment with your GP if recommended. Set yourself lifestyle goals and track your progress with follow up testing as recommended in your results.

**Note:** Your **Essential Health Check** results are provided for informational purposes only and are not a substitute for professional medical advice. You should not use the information provided for diagnosing or treating a medical or health condition. If you feel unwell or suspect that you have a medical problem or want further advice on your test results, then promptly visit your GP or other qualified medical advisor and take these test results with you.

# Vitamin D

Vitamin D is needed by the body for both physical and mental health, but is best known for making sure that bones and muscles (including your heart) are strong and growing properly. It also helps regulate the immune system.

Vitamin D deficiency is related to conditions such as diabetes, heart disease and certain cancers. The development or worsening of mental health conditions, such as depression and low mood has also been linked to inadequate levels of vitamin D.

## You may be at an increased risk of developing vitamin D deficiency if you:



**Are not exposed to much sunlight**, for example if you are housebound, work indoors most of the day or cover up your skin for cultural or other reasons



**Are over 65**, as older skin doesn't produce vitamin D from sunlight as well as in younger people



**Have darker skin as the pigment** in the skin reduces the amount of sunlight that can be absorbed

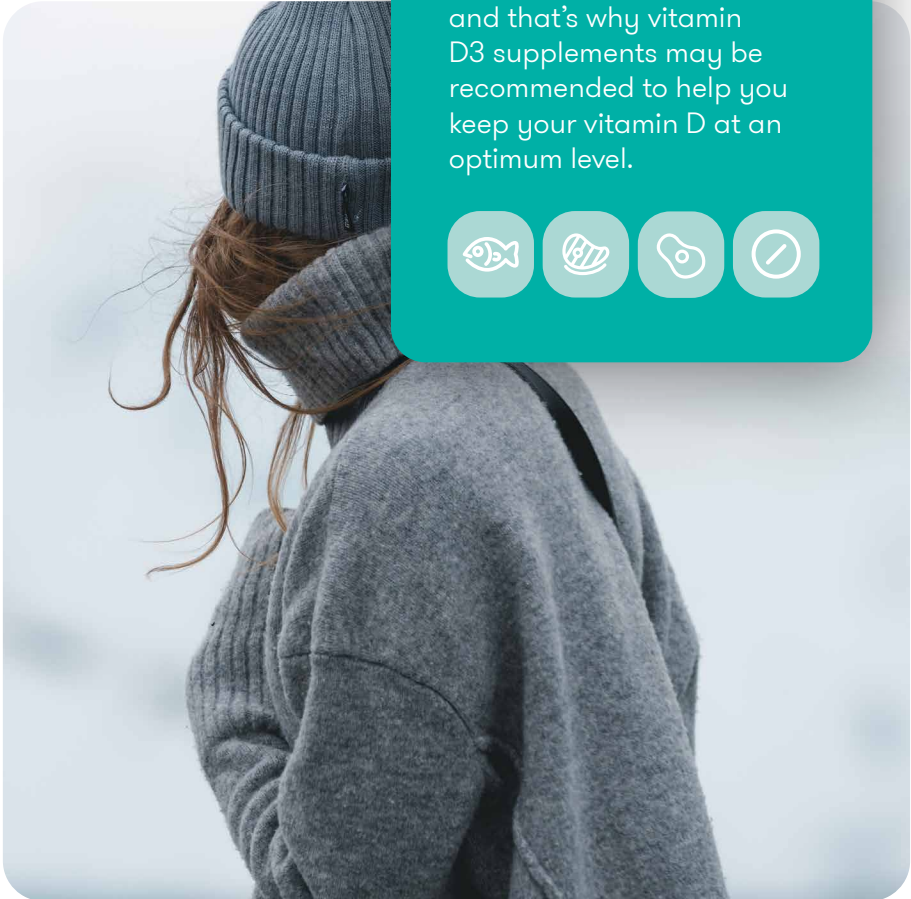


**Tip:** You cannot overdose on vitamin D through exposure to sunlight. But always remember to cover up or protect your skin if you're out in the sun for long periods to reduce the risk of skin damage and skin cancer.

Your body is able to make all the vitamin D you need from sufficient exposure to sunlight. During spring and summer extra sun exposure can help to boost your vitamin D levels.

During autumn and winter when you are less exposed to sunlight you are at increased risk of vitamin D deficiency.

You can get vitamin D from foods like oily fish, meat and eggs and fortified foods where vitamin D has been added but it's difficult to get enough through food and that's why vitamin D3 supplements may be recommended to help you keep your vitamin D at an optimum level.



# Vitamin B12

Vitamin B12 has many roles in your body. It plays a really important role in red blood cell production and helps your nervous system to function properly. Vitamin B12 levels are important for aspects including boosting your energy, improving your memory and helping prevent heart disease.

**A number of factors can contribute to vitamin B12 deficiency, these include:**

- vegan and vegetarian diets
- some medications
- pernicious anaemia; a condition which limits vitamin B12 absorption
- suffering from coeliac disease or Crohn's disease
- if you are over 50 years; because you might not produce sufficient stomach acid for the absorption of vitamin B12



To increase your levels of vitamin B12 you may want to change your diet to include more of the following:



meat especially liver and poultry



fish & shellfish



eggs



milk and dairy products



fortified milk alternatives



fortified cereals

If you're not getting enough vitamin B12 from your diet that's when a vitamin B12 supplement might be recommended. You may also need a vitamin B12 injection from your GP.



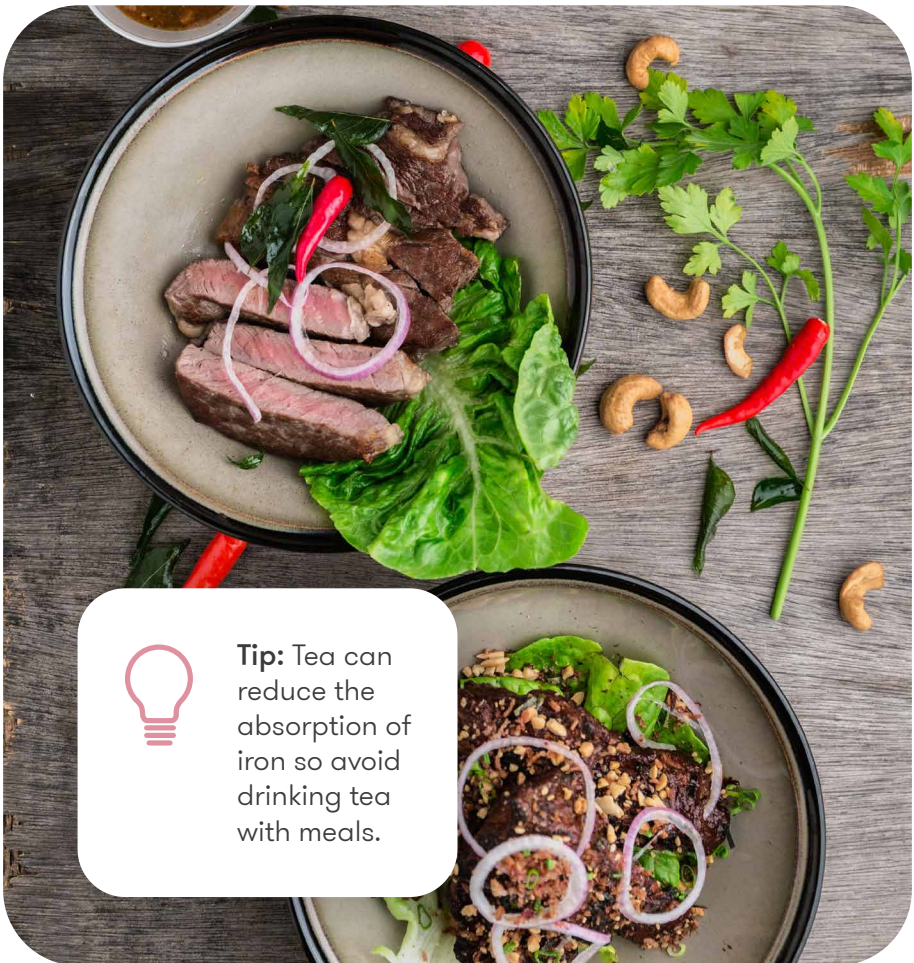
**Fact:** Vitamin B12 is a key nutrient that your body needs for many essential functions.



# Iron Deficiency

The Essential Health Check measures:

**Ferritin** which is a protein that stores iron in the body. Ferritin is the most useful indicator of iron deficiency as stores can be decreased before any blood iron levels are low. The test can also indicate if blood iron stores are too high. If your body is storing too much or too little iron this requires follow up testing from your GP.



**Tip:** Tea can reduce the absorption of iron so avoid drinking tea with meals.



## You can increase your iron levels by eating foods high in iron such as:

- liver
- oysters
- lean red meat
- dark green leafy vegetables such as spinach, kale, broccoli, parsley, Brussels sprouts
- molasses
- chicken and turkey
- fish; particularly oily fish such as mackerel, sardines and pilchards
- egg yolk
- beans, lentils and chickpeas
- whole-grain and brown bread, millet and oats
- dried fruit including apricots, raisins, figs and prunes
- nuts and seeds
- tofu
- brown rice
- baked potatoes
- cashews
- breakfast cereals fortified with iron

You may want to take an iron supplement to help boost your levels.



**Fact:** Eating foods that are rich in vitamin C can help improve the uptake of iron into your body. Try eating vitamin C rich foods such as fresh vegetables, fruit and fresh orange juice with iron containing foods. You may want to take a vitamin C supplement.

# Cholesterol and Triglycerides

When you think of cholesterol, you probably think of ‘bad’ or high cholesterol. But there’s also a ‘good’ type of cholesterol that your body needs to keep at an optimum level.

Cholesterol plays an important role in many of the body’s processes. However, it’s important that cholesterol levels don’t go out of balance.

**High-density lipoprotein (HDL)** is the good kind of cholesterol. **Low-density lipoprotein (LDL)**, **VLDL** and **non-HDL** are the bad types of cholesterol along with **triglycerides** that you want to keep in check. The **Essential Health Check** measures all of these and **total cholesterol** as well.

The test also calculates your **total cholesterol to HDL ratio** and your **triglycerides to HDL ratio** which are both useful information for a GP in determining your risk of heart problems or stroke.

The main aim is to focus on lowering your “bad” cholesterol and triglycerides, and increasing your “good” HDL cholesterol to an optimum level.





You might be at risk of high “bad” cholesterol and triglycerides, or low “good” cholesterol if you:



eat an **unhealthy diet** containing too many foods that are high in cholesterol and saturated fats



**smoke**



are **overweight**



**have diabetes** (or pre-diabetes)



drink too much **alcohol**



have a **genetic disorder** such as familial **hypercholesterolaemia**

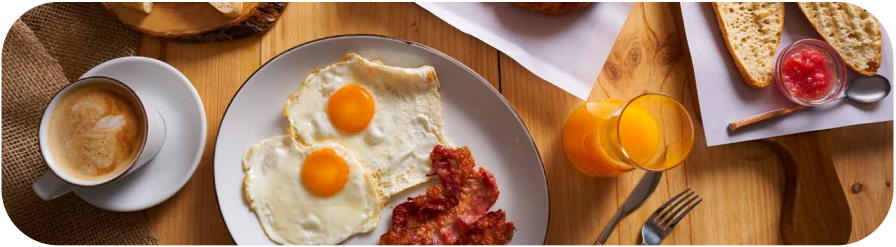


do not exercise

# Reduce your bad cholesterol and triglycerides levels

Eat less of the following foods which are high in cholesterol and saturated fats:

- cheap sausages
- fatty and cured meat
- pastries such as pies, quiches, sausage rolls and croissants
- butter, ghee, lard, suet
- cream, ice cream, crème fraiche and sour cream
- cheese
- cakes and biscuits
- milkshakes
- foods containing coconut or palm oil



**Tip:** There are some foods which are low in saturated fat but high in cholesterol. These include eggs, some shellfish and liver. It's much more important to cut down on foods which contain saturated fats (above) than these foods. Try to replace saturated fats with unsaturated fats which are better for your heart.

## It is also recommended that you:



Avoid / reduce your intake of fast food and fried foods



Eat high-fibre foods; for example fruits, vegetables and whole grains



Eat lean sources of protein; for example chicken, fish and legumes



Avoid / reduce your intake of sugary and refined foods; avoiding sugary foods and fizzy drinks



Bake, steam, grill or boil foods instead of frying them. Use a small amount healthy oil or fat spread made from vegetables or seeds. Avoid butter and other animal fats.



Eat foods rich in unsaturated fats; for example, oily fish, nuts and olive oil replacing them with foods with more unsaturated fat can help improve cholesterol levels. Go for healthy spreads, oily fish, nuts, seeds and cooking and salad oils (see Increase your good (HDL) cholesterol level section on the next page)



Exercise regularly (see page 19)



If you are overweight, then try and lose weight until you reach an optimum BMI. Use the BMI calculator included on page 20



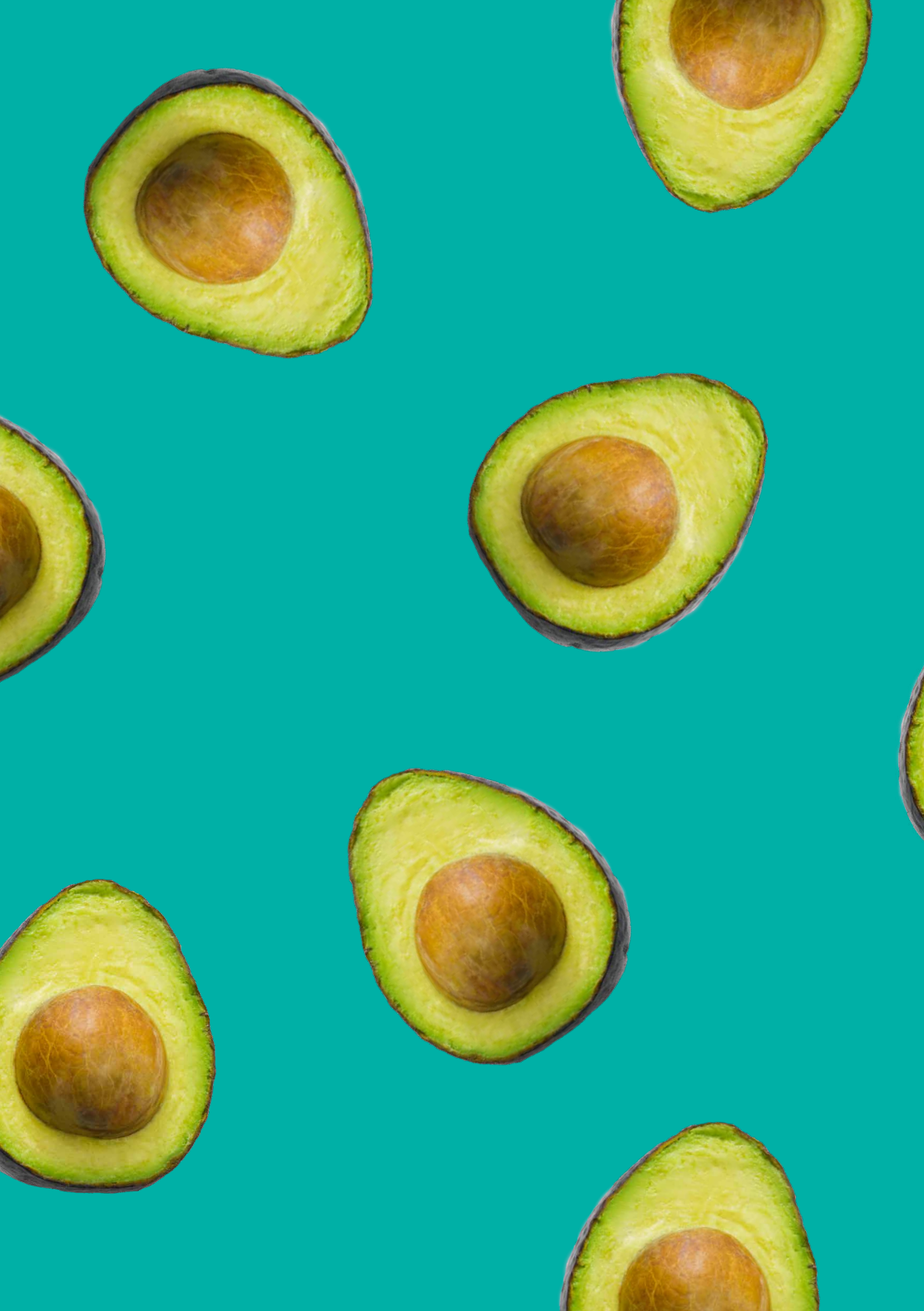
Limit alcohol intake (see page 17 for guidance)



Stop smoking



**Tip:** If you have raised triglycerides it is particularly important to maintain a healthy body weight. Regular exercise and loss of excess weight can often result in significant lowering of triglyceride levels.



# Increase your good (HDL) cholesterol level

Include the following in your diet:



Oils and spreads such as those made from flaxseed, soyabean, sunflower, olive, rapeseed (exclude those made with hydrogenated or trans fats)



Nuts such as walnuts, almonds, cashews, hazelnuts, peanuts, pecans, pistachios



Foods fortified with omega 3's



Seeds such as flaxseed, linseeds and hemp



Oily fish such as herring, pilchards, sardines, mackerel, salmon, trout and fresh tuna



# Liver Function

The liver is responsible for functions vital to life. The liver primarily processes nutrients from foods, removes toxins from the body and builds proteins. It breaks down fats, it converts glucose into energy stores and produces hormones. It also helps your body fight infections.

## What we measure:

**Albumin;** a protein that is made in your liver. It helps to transport nutrients and hormones, as well as helps to grow and repair tissues in your body.

**Globulin;** a group of proteins made in your liver. Globulins play an important role in liver function, blood clotting and fighting infections.

**Total protein;** your albumin and globulin levels combined.

**Alanine aminotransferase (ALT);** a protein enzyme that is only found in your liver, so it's a good indicator of your liver function. A high ALT level can be a sign of liver damage as the ALT protein is released into the bloodstream from the damaged liver cells.

**Alkaline phosphatase (ALP);** your liver is one of the main sources of ALP, but some is also made in your bones, intestines, pancreas, and kidneys.

**Gamma-glutamyl transferase (GGT);** a protein enzyme found mainly in the liver. A high GGT can indicate damage to the liver or bile ducts.

**Total bilirubin;** a yellow pigment. High bilirubin levels can be a sign that your liver is damaged. Sometimes high levels can be caused by Gilbert's syndrome which is a harmless inherited disorder.

Alcohol, poor nutrition and diet, lack of exercise, being overweight and hepatitis are common causes that may impact liver function.



**Take a look at your current lifestyle and focus on the following:**

### **Reduce alcohol consumption:**

Some people think that alcohol is fairly harmless and something to be enjoyed. Other than a few ill-effects the next day, and maybe putting on a bit of weight, alcohol may not seem to have any long lasting effects. But it does, and it is a mistake to think that you have to be a heavy drinker to run into problems. Although it can take years, drinking just a bit more than you should can seriously damage your liver. Just because you don't feel any side effects doesn't mean that the damage to your liver has not already started.

The good news is that the liver has a tremendous capacity to regenerate itself. If caught early, minimal liver damage can be reversed.

If you are healthy and eat a balanced diet then sensible drinking may not give you problems. But what is sensible drinking? The UK Chief Medical Officers offer the following guidelines for sensible drinking: You are safest not to drink regularly more than 14 units per week, to keep health risks from drinking alcohol to a low level. It is also advised that individuals avoid alcohol for a minimum of two days a week to give their liver a break.



## Eat healthily and ensure you maintain a healthy weight:

Since everything we eat must eventually pass by the liver in some form or other, special attention to nutrition and diet can really help to keep your liver healthy. Here are some healthy eating tips:



eat lots of fruit and vegetables and include in your diet “healthy foods for the liver” such as: garlic, legumes, onions and eggs; good sources of water-soluble fibres such as pears, oat bran and apples; vegetables such as broccoli, brussel sprouts, cauliflower and kale; carrots, turmeric and cinnamon



cut down on saturated fat (see Cholesterol and Triglycerides section) and sugar



try and be a healthy weight; if you are overweight, then lose weight until you reach an optimum BMI. Use the BMI calculator included on page 20.



drink plenty of water; you should be drinking about 6 to 8 glasses (1.2 litres) of water or other fluids a day to stop getting dehydrated.



swap table salt for mineral or rock salt



## Exercise regularly; the UK Chief Medical Officers offer the following guidelines:



aim to be physically active every day; any activity is better than none



If you can then do strengthening activities that work all the major muscles (legs, hips, back, abdomen, chest, shoulders and arms) on at least 2 days a week



do at least 150 minutes of moderate intensity activity a week or 75 minutes of vigorous intensity activity a week



reduce time spent sitting or lying down and break up long periods of not moving with some activity.

### **Beware of exposure to harmful substances**

- Certain drug interactions, including mixing alcohol with certain medications, can harm the liver. Do not take large doses of vitamins, nutritional products, or herbal remedies without consulting your doctor. Very high doses, or regular use of certain painkillers can affect the liver.
- The additives in cigarettes pose a real challenge to the liver by reducing the liver's ability to eliminate toxins.
- Insecticides and other chemicals can get to the liver through your skin and damage liver cells. Take care when using garden or household chemicals. Use harsh cleansers and aerosol products in well-ventilated rooms.
- Review and reduce your risk of contracting hepatitis; for more information visit the NHS website.

# Calculate your Body Mass Index (BMI)

Your BMI can give you an indication of your weight status.

Your BMI is a value that is representative of your weight (**kg**) and height (**m**) expressed in units of **kg/m<sup>2</sup>**.

To calculate your current BMI record your **Weight in kg** (e.g. 59.4kg) and your **Height in metres** (e.g. 1.61m)

Then multiply your Height (**m**) by your Height (**m**) to give your **m<sup>2</sup>** value.

For example if you are **1.61m** tall then your **m<sup>2</sup>** value is **1.61 × 1.61 = 2.59** Then divide your weight in kg by your m<sup>2</sup> value to give you your BMI. In this example **59.4 ÷ 2.59** equals a BMI of **22.9**

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Healthy weight
25.0 – 29.9	Overweight
30.0 – 39.9	Obesity
40.0 and above	Severe obesity



# Summary

**Congratulations** on completing your **Essential Health Check** and taking control of your health, nutrition and wellbeing. Now that you have read all the relevant information for you, you may decide that you would like some further support.

## Here are some suggested actions you can take:

- Make positive lifestyle and nutritional changes as recommended in this guidebook
- Take vitamins and supplements as appropriate
- Remember to take into account any food intolerances or allergies when changing your diet
- Diarise to order your re-test as recommended in your results letter
- Visit your GP as necessary and take your **Essential Health Check** results with you
- We recommend that you continue to monitor your health on a regular basis

Yours in good health,

**The YorkTest Team**





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