i-screen

Ella Nielson

Your test results

Well Woman Check

Summary

Congratulations on taking the Well Woman Check which puts you in control of your health data!

Dr Matt Newport

Collection Date: 16 May 2022

Female Hormone Panel

For the purposes of interpreting this test result, it is assumed that your sample was collected between 6 to 8 days after you ovulate (about day 21 of a 28 day cycle, or 17 of a 24 day cycle), and that you are not taking the contraceptive pill.

Your hormone levels are all within the normal range for the luteal phase of your cycle and don't indicate an imbalance, whilst your progesterone levels indicate you most likely have ovulated.

Oestradiol 495 pmol/L

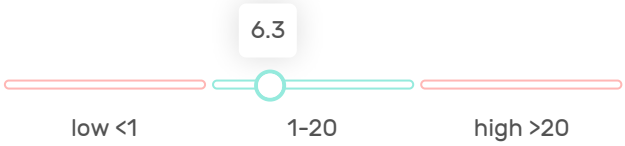
Too much oestradiol (oestrogen) is linked to acne, constipation, loss of sex drive, depression, weight gain, PMS, period pain, and thyroid dysfunction. The effects of low oestradiol are evident in menopause and include mood swings, vaginal dryness, hot flashes, night sweats and osteoporosis.

Progesterone 33 nmol/L

The sex hormone produced mainly in the ovaries following ovulation and is a crucial part of the menstrual cycle. Progesterone helps to combat PMS and period pain issues, assists fertility and promotes calmness and quality of sleep.

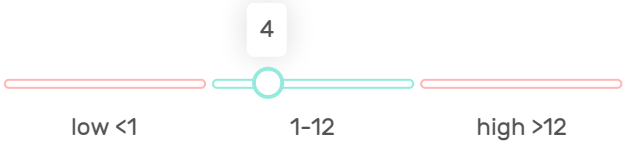
LH 6.3 IU/L

Governs the menstrual cycle, peaking before ovulation. Raised LH can signal that a woman is not ovulating, is menopausal or that the hormones are not in balance. A high LH/FSH ratio can indicate Polycystic Ovarian Syndrome (PCOS).



FSH 4 IU/L

Stimulates the ovary to mature an egg. High levels indicate poor ovarian reserves which means the quality and quantity of eggs may be low. This doesn't necessarily mean that pregnancy is impossible, but it may be more difficult to achieve.

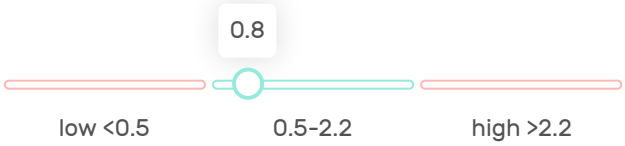


LH to FSH Ratio 1.6

Normally this ratio is about 1:1 meaning FSH and LH levels in the blood are similar. In women with polycystic ovaries the LH to FSH ratio is often higher e.g. 2:1 or even 3:1

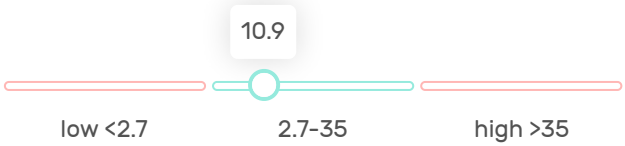
Testosterone 0.8 nmol/L

High levels commonly seen in polycystic ovarian syndrome (PCOS) which can lead to difficulties in conceiving. Symptoms can include irregular periods, loss of hair from the head, excess facial and body hair, unexplained weight gain and acne.



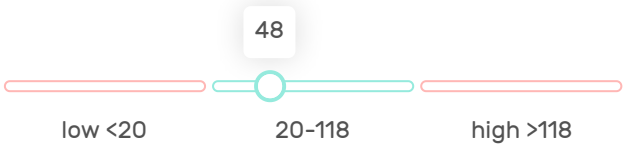
Free Testosterone 10.9 pmol/L

Most testosterone is strongly bound to sex hormone binding globulin (SHBG). This test measures the proportion of unbound testosterone which is available to the body's tissues.



SHBG 48 nmol/L

Sex Hormone Binding Globulin (SHBG) is a protein that binds tightly to testosterone and oestradiol. Changes in SHBG levels can affect the amount of hormone that is available to be used by the body's tissues.



Iron Stores

Your ferritin levels are below the normal range, which is suggestive of iron deficiency. During reproductive years iron deficiency in women is usually due to heavy menstrual losses, though other possible causes may warrant consideration. I would recommend following up on this result with your GP.

Ferritin 12 ug/L

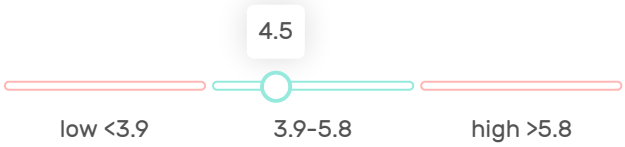
The ferritin concentration within the blood stream reflects the amount of iron stored in your body and is reduced in anaemia.

Full blood count with differential

Your blood counts are all within the normal range and don't indicate anaemia or recent infection.

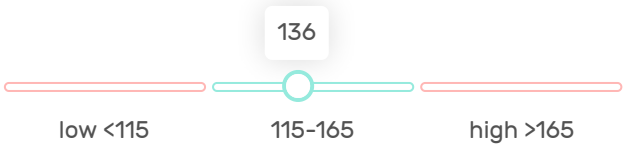
Red Blood Cell Count 4.5 x10*12/L

Responsible for carrying oxygen around the body. A high count can increase the risk of heart attack or stroke, whilst a low count can mean your body isn't getting the oxygen it needs.



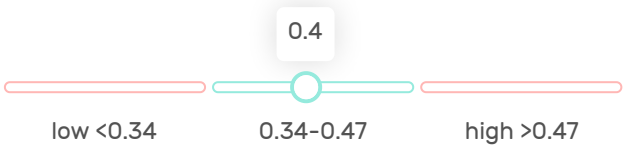
Haemoglobin 136 g/L

A good measure of your blood's ability to carry oxygen throughout your body. Elevated haemoglobin can be an indicator of lung disease, whilst a low result indicates anaemia.



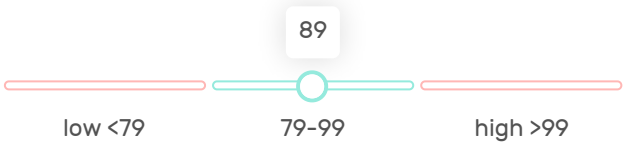
Haematocrit 0.40

A measure of the percentage of red blood cells in the total blood volume. Elevated haematocrit can increase the risk of heart attack or stroke.



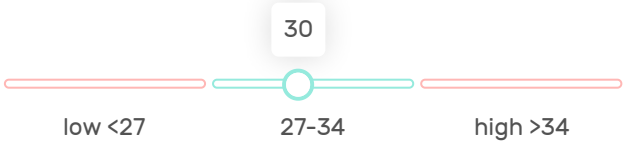
MCV 89 fL

Mean corpuscular volume (MCV) is a measure of the average size of the RBCs. The MCV is elevated when RBCs are larger than normal, eg in anaemia caused by vitamin B12 deficiency. When MCV is decreased, RBCs are smaller than normal as seen in iron deficiency anaemia.



MCH 30 pg

Mean corpuscular haemoglobin (MCH) is a calculation of the average amount of oxygen-carrying haemoglobin inside a red blood cell. Large RBCs are large tend to have a higher MCH, while small red cells would have a lower value.

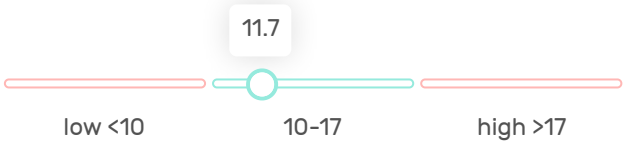


MCHC 341 g/L

Mean corpuscular haemoglobin concentration (MCHC) is a calculation of the average concentration of haemoglobin inside a red cell. Decreased MCHC is seen in iron deficiency anaemia and thalassaemia.

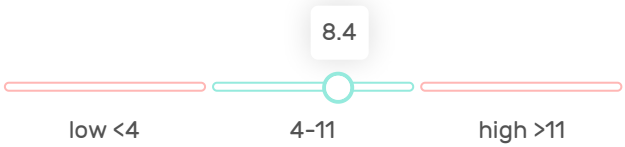
RDW 11.7 %

Red cell distribution width (RDW) is a calculation of the variation in the size of your RBCs. In some anaemias, such as pernicious anaemia (due to vitamin B12 deficiency), the amount of variation in RBC size causes an increase in the RDW.



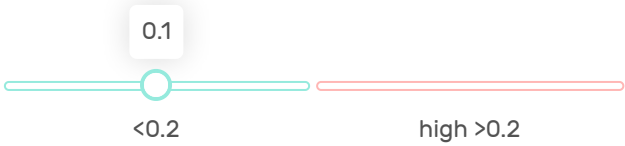
White Blood Cell Count 8.4 x10*9/L

Responsible for fighting infection. A high count can indicate recent infection and even stress, whilst a low count can result from vitamin deficiencies, liver disease and immune diseases.



Basophils 0.1 x10*9/L

Basophils are a type of white blood cell. Basophils can increase in cases of leukaemia, long-standing inflammation and hypersensitivity to food.

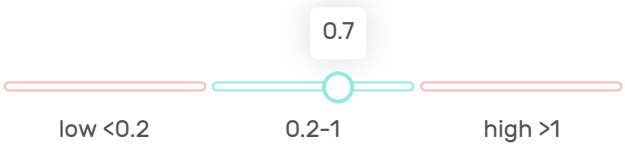


Eosinophils 0.2 x10*9/L

A type of white blood cell. Can increase in response to allergic disorders, inflammation of the skin and parasitic infections. They can also occur in response to some infections or to various bone marrow malignancies.

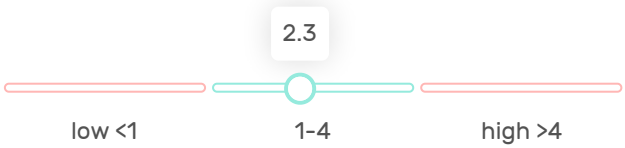
Monocytes 0.7 x10*9/L

A type of white blood cell. Can increase in response to infection as well as inflammatory disorders, and occasionally with some types of leukaemias. Decreased monocyte levels can indicate bone marrow injury or failure and some forms of leukaemia.



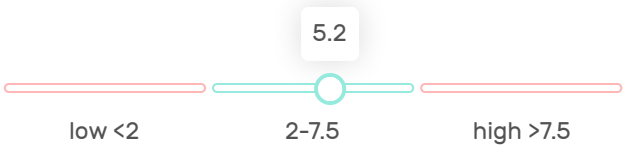
Lymphocytes 2.3 x10*9/L

A type of white blood cell. Can increase with bacterial or viral infection, leukaemia, lymphoma, radiation therapy or acute illness. Decreased lymphocyte levels are common in later life but can also indicate steroid medication, stress, lupus and HIV infection.



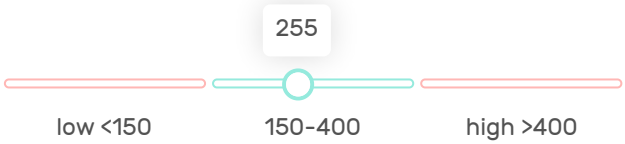
Neutrophils 5.2 x10*9/L

A type of white blood cell. Can increase in response to bacterial infection, inflammatory disease, steroid medication, or more rarely leukaemia. Decreased neutrophil levels may be the result of severe infection or other conditions.



Platelet Count 255 x10*9/L

Responsible for blood clotting and healing. A high count can indicate a risk of thrombosis, whilst a low count can lead to easy bruising.

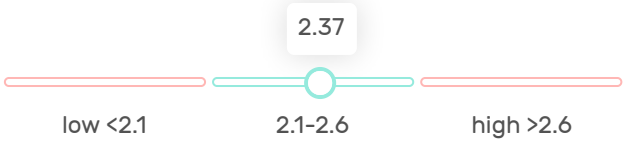


Bone Health

Calcium and phosphate work together to help build strong bones and teeth. Your markers are within the normal range and don't indicate an imbalance that could cause bone weakness.

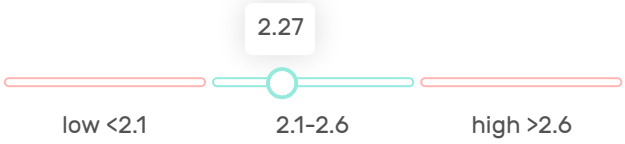
Calcium 2.37 mmol/L

plays a critical role in developing and maintaining your overall bone health.



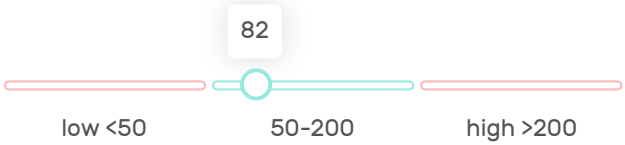
Calcium (corrected) 2.27 mmol/L

Plays a critical role in developing and maintaining your overall bone health. If the total calcium result is abnormal, a corrected calcium calculation provides further information.



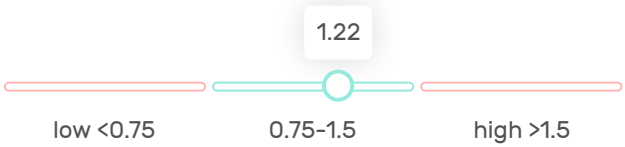
Vitamin D 82 nmol/L

Although called a vitamin, vitamin D (25-OHD) is actually a steroid hormone which is activated by sunshine on the skin. It is essential for bone strength as it helps the intestines absorb calcium.



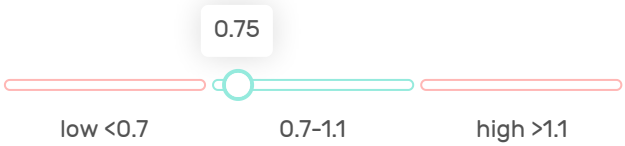
Phosphate 1.22 mmol/L

Most phosphate in the body comes from foods such as beans, peas and nuts, cereals, dairy products, eggs, beef, chicken and fish contain small amounts of phosphate. Phosphates are vital for energy production, muscle and nerve function, and bone growth.



Magnesium 0.75 mmol/L

Magnesium and calcium work together closely to maintain strong bones, and magnesium deficiency has been associated with an increased risk of osteoporosis.

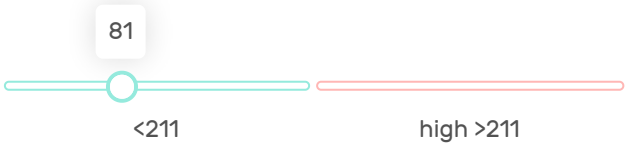


Inflammation

Your CRP and creatine kinase levels are within normal range - these are indicators of inflammation and muscle breakdown respectively.

Creatine Kinase 81 U/L

When muscle cells are injured creatine kinase enzymes leak out of the cells and enter the bloodstream. Prolonged elevated creatine kinase after periods of rest can be a sign of overtraining.



High sensitivity CRP 0.76 mg/L

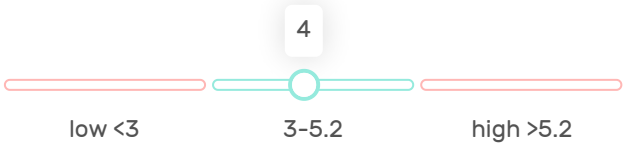
A high-sensitivity C-reactive protein (hs-CRP) test measures low levels of CRP and may be used to help evaluate an individual for risk of cardiovascular disease

Cholesterol

Your lipid profile is within the normal range. Your LDL "bad" and non-HDL cholesterol levels are within the normal range, whilst your HDL "protective" cholesterol and triglyceride levels are also normal. This typically indicates you are at relatively low risk of developing cardiovascular disease (assuming you are not already in the high risk category).

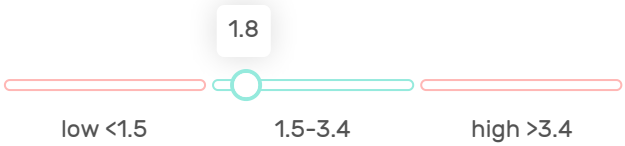
Total Cholesterol 4.0 mmol/L

High total cholesterol is a risk factor for cardiovascular disease.



LDL 1.8 mmol/L

LDL (low density lipoprotein) cholesterol is often called 'bad cholesterol' because it contributes to plaque, a thick, hard deposit that can clog arteries and make them less flexible.

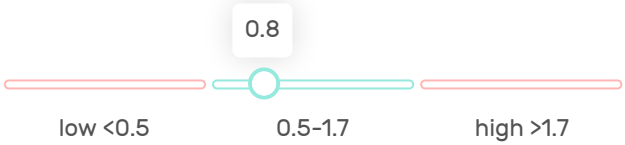


HDL 1.8 mmol/L

HDL (high density lipoprotein) cholesterol is often called 'good cholesterol' and is protective against atherosclerosis.

Triglycerides 0.8 mmol/L

The main storage form of fatty acids in the body. Elevated triglyceride levels may contribute to hardening of the arteries, and increase the risk of heart disease or stroke.



Non-HDL Cholesterol 2.2 mmol/l

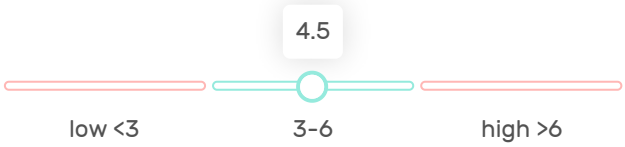
Non-HDL cholesterol is considered an effective lipid measurement for assessing cardiovascular disease risk as it is believed to reflect levels of 'bad' cholesterol. Other risk factors include smoking, high blood pressure, diabetes, obesity, physical inactivity, age, gender, ethnicity and family history.

Blood Glucose

Your fasting glucose is within the normal range and doesn't indicate increased risk of diabetes.

Fasting glucose 4.5 mmol/L

If you have diabetes your body doesn't process glucose effectively.

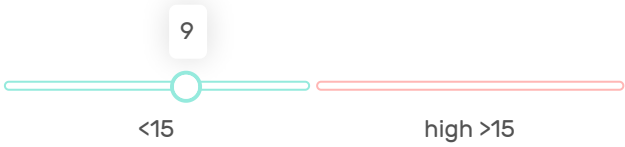


Liver Function (LFTs)

Your liver function results are within normal range which is a good indication that your liver is working as it should be.

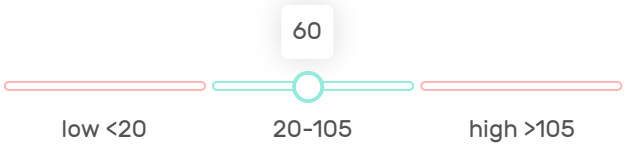
Bilirubin 9 umol/L

Bilirubin tests are use to screen for or to detect and monitor liver disorders or haemolytic anaemia.



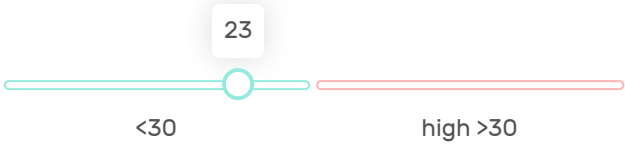
ALP 60 U/L

Alkaline phosphatase (ALP) is an enzyme located mainly in the liver and the bones. High levels can indicate liver disease.



AST 23 U/L

Aspartate aminotransferase (AST) is an enzyme created mainly by the liver and the heart. High levels can indicate damage to your liver caused by alcohol, drugs or hepatitis.

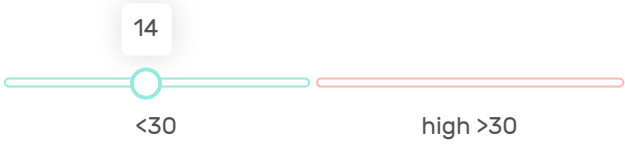


ALT 17 U/L

Alanine aminotransferase (ALT) is an enzyme mainly produced by the liver. A good indicator of liver damage caused by alcohol, drugs or hepatitis.

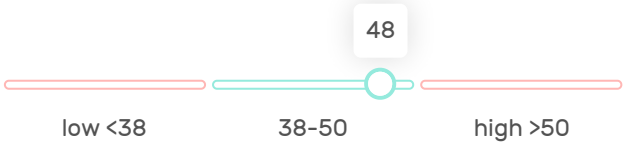
GGT 14 U/L

Gamma-glutamyl transferase (GGT) is a liver enzyme which can be used to diagnose alcohol abuse as it is typically raised in long term drinkers.



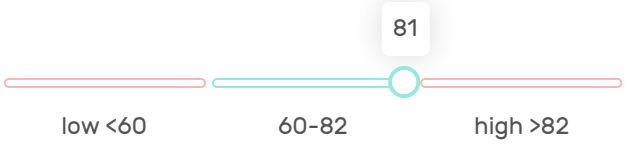
Albumin 48 g/L

Albumin is a protein which keeps fluid from leaking out of blood vessels, nourishes tissues, and carries hormones, vitamins, drugs, and ions like calcium throughout the body. Albumin is made in the liver and is sensitive to liver damage.



Total Protein 81 g/L

A measure of all of the proteins in the plasma portion of your blood. Proteins are important building blocks of all cells and tissues - they are important for body growth and health.



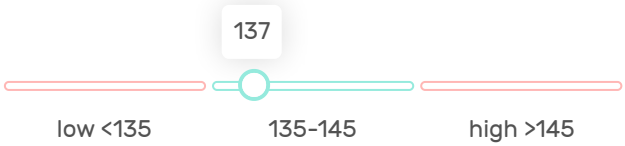
Kidney Function

Your potassium levels are *slightly* depressed, which may not be of clinical significance. Low potassium can sometimes be a result of diarrhoea and vomiting, and more rarely conditions such as hyperaldosteronism or deficient potassium intake. A repeat blood sample may be reassuring.

Your kidney function in terms of waste products (urea and creatinine), estimated filtration rate (eGFR) and other electrolytes are all within range.

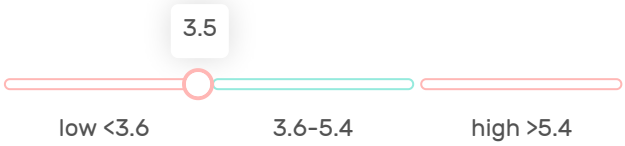
Sodium 137 mmol/L

Helps regulate the water and electrolyte balance of your body, and is important in the function of your nerves and muscles. Too much sodium can indicate kidney disease.



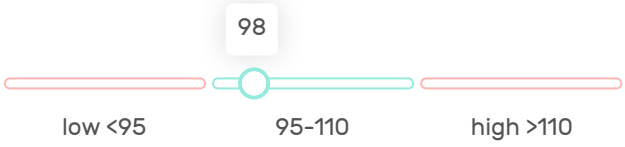
Potassium 3.5 mmol/L

Minor changes in serum potassium ca have significant consequences. An abnormal concentration can alter the function of the nerves and muscles for example, the heart muscle may lose its ability to contract.



Chloride 98 mmol/L

Chloride, like sodium, helps to maintain the balance of fluid in the body. Raised levels can be caused by eating too much salt, dehydration, diarrhoea, certain medications and also kidney disease.

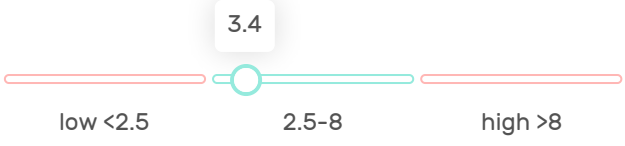


Bicarbonate 22 mmol/L

Higher than normal levels suggests trouble maintaining pH balance either by failing to remove carbon dioxide or because of an electrolyte imbalance. Elevations may be seen with severe vomiting, chronic lung problems and some hormonal disorders. Low levels may be seen with chronic diarrhoea, diabetic ketoacidosis and kidney failure.

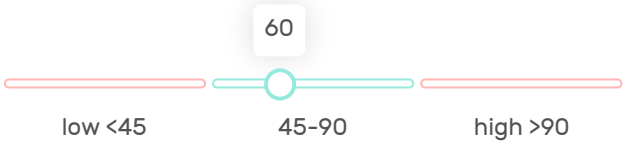
Urea 3.4 mmol/L

A high concentration of this waste product can indicate dehydration or that your kidneys aren't working properly.



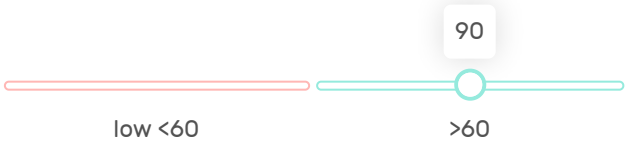
Creatinine 60 umol/L

A waste molecule generated from muscle metabolism, and an accurate marker of kidney function.



eGFR 90 mL/min/1.73m2

The estimated glomerular filtration rate (eGFR) measures how well your kidneys filter the wastes from your blood and is the best overall measure of kidney function.



Recommendations

Take your blood pressure

Blood pressure is an important cardiovascular disease risk factor, and I recommend taking your blood pressure regularly. High blood pressure puts extra strain on your arteries and heart which over time can cause the arteries to become thicker and less flexible (making them more likely to become clogged up), or to become weaker. This can lead to a heart attack, a stroke, kidney disease or dementia.

Optimise your iron

Your ferritin levels may indicate an iron deficiency. Some signs that your body is low in iron include feelings of weakness, tiredness and dizziness. Iron deficiency can result in a drop in haemoglobin levels (the protein in your blood that carries oxygen). Consider increasing the amount of iron rich food in your diet. Iron-rich food sources include meats, eggs, green leafy vegetables, (such as spinach, collard greens and kale), wheat germ, whole grain breads, cereals and raisins. I would recommend following up on this result with your GP in the first instance.

Check in with your GP

As always, please visit your GP to discuss your results. Laboratory investigations are an important aspect of healthcare, however they must be viewed in the wider context of your medical history, current health and concerns, physical examination findings and other investigations. These results do not replace the need for face to face medical consultation or regular visits to your local GP. Please contact us if you would like a copy of your lab report.