

RANDOX














HEALTH

RANDOX

HEALTH

PID	
Forename	Standard Screen
Surname	Example Report
Fasted For	XX hours and XX minutes
DOB	dd-Mmm-yyyy

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Your Results of Interest

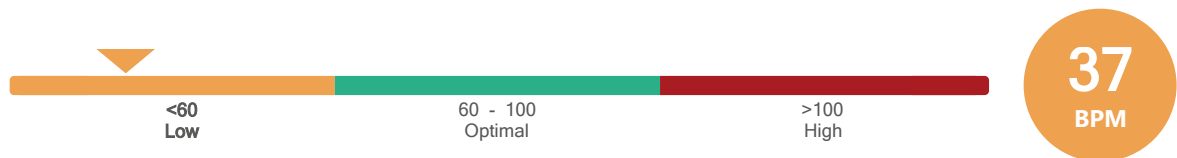
The results presented in this section are a summary of all the tests that are either positive or fall outside the reference ranges. What does this mean? A reference range is a term used to determine if your results are within what is considered to be the 'normal' range of the population. If your results are outside the range for a test, it does not automatically mean the result is abnormal. Depending on each person's individual medical history, current medications and ongoing conditions or diseases, the results must be interpreted in this context to fully understand what these results mean to you. Therefore, in this section those results that are either positive or fall outside the reference range are highlighted so that they can be reviewed by a GP / Consultant to understand the relevance to your health. These results will also appear again throughout the report alongside the other results for that profile.



Personal Health Measurements

Pulse

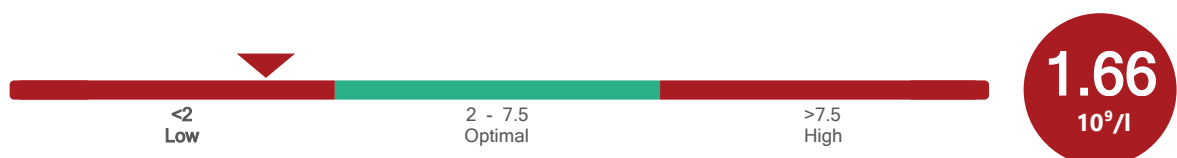
Pulse is a measurement of the heart rate, or the number of times the heart beats per minute. Increased pulse can be associated with anxiety, intense exercise, pregnancy or an abnormal heart rhythm due to an underlying cardiac condition. Trained athletes or individuals who are physically fit can have low pulse rates. However, a low pulse rate can also be associated with an underlying cardiac condition or certain prescribed medications.



Full Blood Count

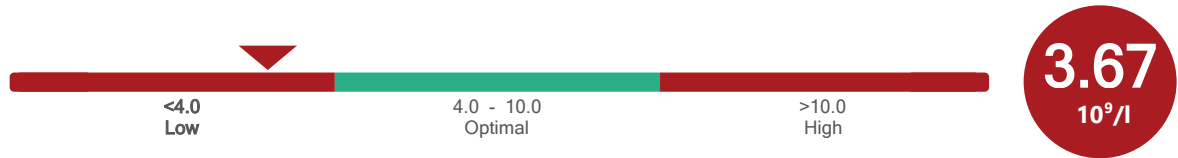
Neutrophil Count

Neutrophil Count refers to the number of neutrophils per unit volume of blood. Neutrophils are white blood cells that kill and ingest bacteria and fungi. An increased neutrophil count may be associated with infection, inflammation, myeloproliferative disorders (conditions in which the bone marrow produces cells excessively), cancer and some medications (e.g. corticosteroids). A decreased number of neutrophils may be the result of overwhelming bacterial or viral infections, dietary deficiencies (e.g. vitamin B12 or folic acid deficiency), aplastic anaemia (failure of bone marrow to produce blood cells), and the use of certain medications or radiation.



White Blood Cell Count

White Blood Cell Count refers to the total number of WBCs per unit volume of blood. White blood cells are an essential part of the immune system and help protect the body against infection. An increased WBC count may be associated infection, inflammation, tissue damage, leukaemia, trauma, stress or dehydration. A decreased WBC count may occur with overwhelming infections, dietary deficiencies (e.g. vitamin B12 or folic acid deficiency), an overactive spleen, autoimmune diseases (conditions caused by the generation of an immune response against the body's own tissues), bone marrow disorders, or medication, particularly chemotherapy.



Heart Health

HDL Cholesterol

HDL Cholesterol describes cholesterol that is bound to high-density lipoprotein (HDL). Lipoproteins are responsible for transporting cholesterol in the blood. HDL cholesterol is 'protective' as it removes cholesterol from the peripheral tissues and transports it back to the liver for removal from the body. A low HDL cholesterol level is undesirable and is associated with increased risk of atherosclerosis (accumulation of cholesterol and fatty material within blood vessel walls) and cardiovascular disease. Obesity, metabolic syndrome (a set of risk factors for diabetes and cardiovascular disease occurring simultaneously), uncontrolled diabetes, smoking, malnutrition and lack of exercise are associated with low HDL cholesterol levels.

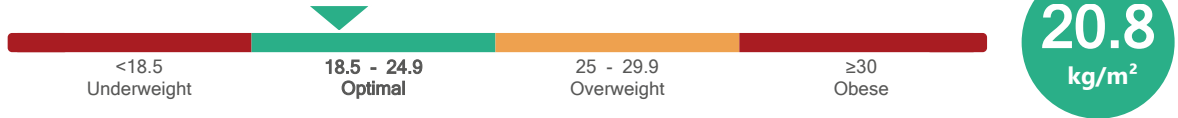




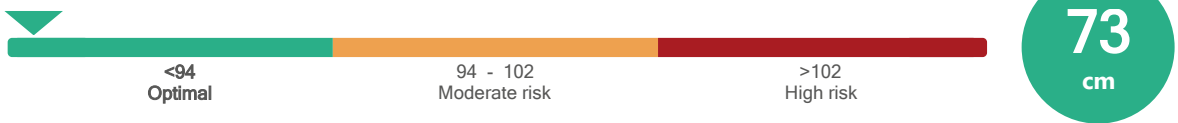
Personal Health Measurements

Measurements include pulse, blood pressure, waist circumference and calculation of body mass index (BMI). Various lifestyle and hereditary factors can influence these parameters, which are useful in the overall assessment of an individual's risk of developing conditions such as cardiovascular disease or diabetes. The measurement of oxygen saturation by pulse oximetry is also included. A low blood oxygen level, or hypoxaemia, may be associated with airway obstruction, which occurs in conditions such as asthma, emphysema and chronic obstructive pulmonary disease.

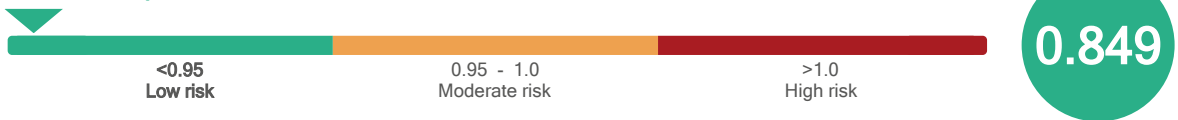
Body Mass Index (BMI)



Waist Circumference



Waist / Hip Ratio

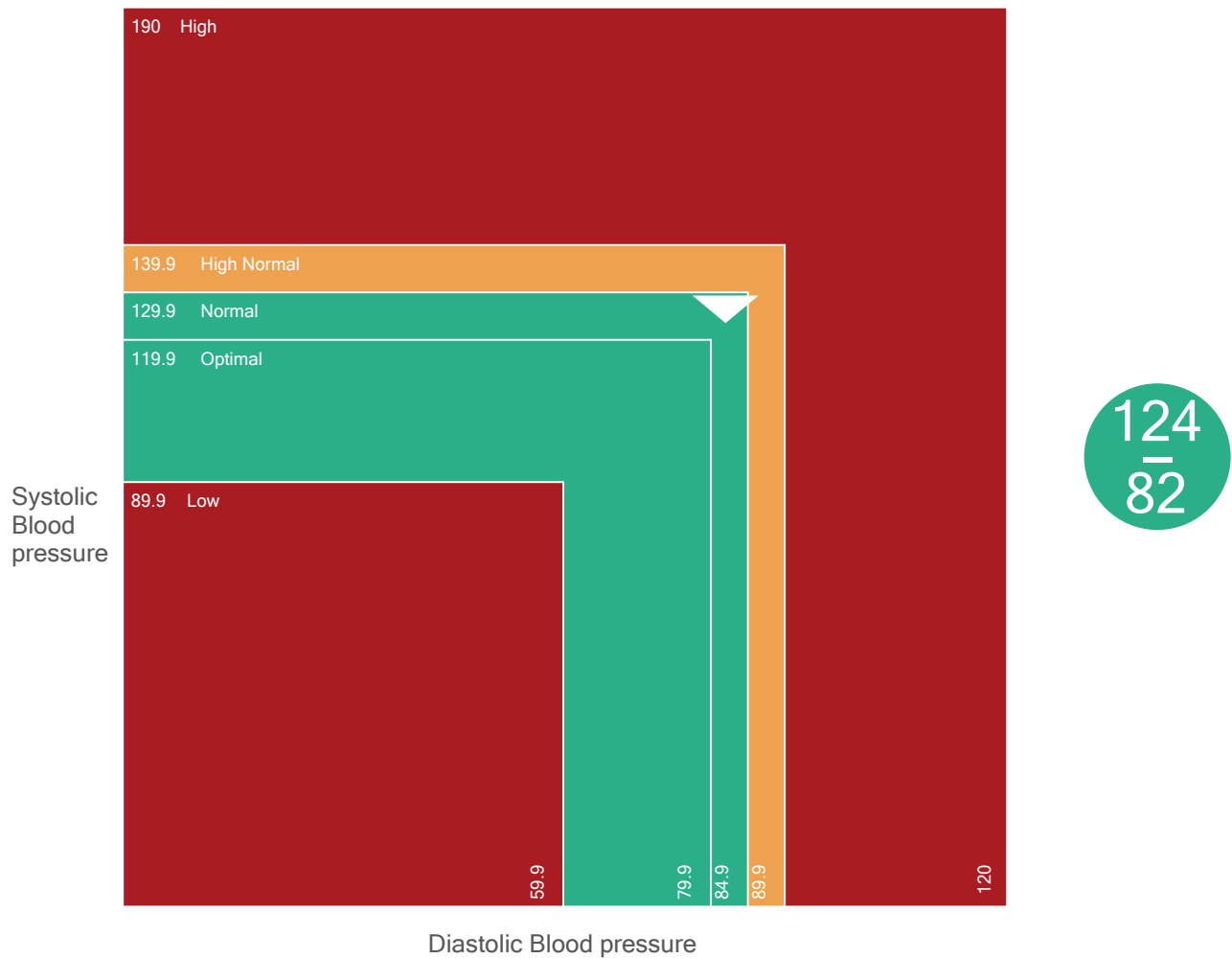


Pulse



Blood Pressure

Blood Pressure is a measurement of the force applied to the walls of the arteries as the heart pumps blood through the body. Systolic blood pressure refers to the pressure of blood as your heart contracts. Diastolic blood pressure refers to the pressure of blood as your heart rests between beats. High blood pressure is a significant risk factor for the development of heart disease, stroke, kidney disease and metabolic syndrome. Dehydration, bleeding, inflammation, infection, heart disease, pregnancy and various medications can cause low blood pressure. Physically fit individuals may have low blood pressure and in some individuals, blood pressure is naturally low.



Height
1.755 m

Weight
64 kg

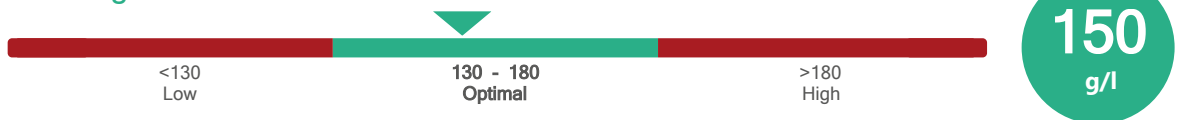
Hip circumference
86 cm



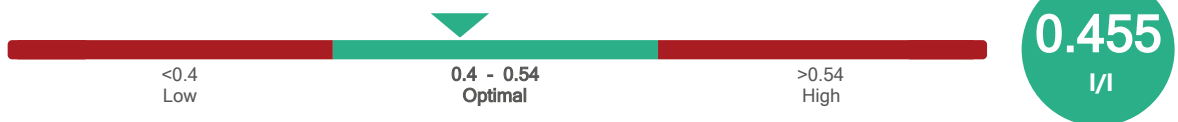
Full Blood Count

This panel provides information about the type and number of cells in the blood, including red blood cells, white blood cells and platelets. Red blood cells contain haemoglobin, a protein that carries oxygen from the lungs to all the tissues of the body and carbon dioxide back to the lungs. White blood cells form part of the immune system and help to defend the body against infection from foreign substances such as bacteria, fungi and viruses. The major types of white blood cells are neutrophils, lymphocytes, monocytes, eosinophils and basophils, with each having their own role in protecting the body from infection. Platelets are important for blood clotting. Their sticky surface enables them, along with other substances, to help wounds heal by forming clots to stop bleeding. The Full Blood Count is useful for evaluating general health status and as a screening tool for a variety of conditions, such as anaemia, infection, inflammation and other blood disorders.

Haemoglobin



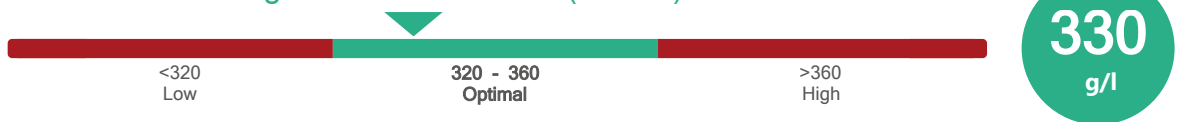
Haematocrit



Mean Cell Haemoglobin (MCH)



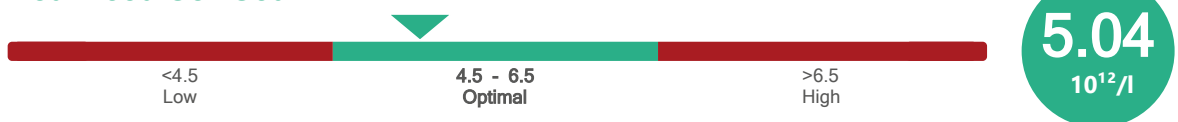
Mean Cell Haemoglobin Concentration (MCHC)



Red Blood Cell Mean Cell Volume (MCV)



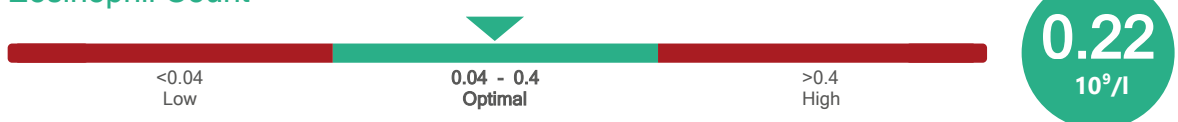
Red Blood Cell Count



Basophil Count



Eosinophil Count



Lymphocyte Count



1.23
10⁹/l

Monocyte Count



0.52
10⁹/l

Neutrophil Count



1.66
10⁹/l

White Blood Cell Count



3.67
10⁹/l

Platelet Count



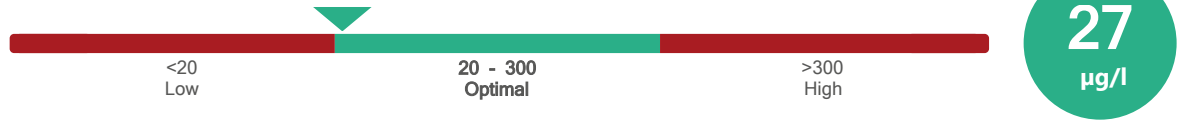
204
10⁹/l



Iron Status

Iron is essential for red blood cell formation. Most of the body's iron, approximately 70%, is present in red blood cells, where its primary role is to carry oxygen from the lungs to all the tissues of the body. Additionally, iron facilitates energy production and release from cells and participates in the functioning of the immune and central nervous systems. Iron Status is useful for evaluating conditions such as iron-deficiency, which can cause anaemia, and iron overload, which can cause organ damage, particularly to the liver.

Ferritin





Heart Health

A major contributing factor to heart disease is the gradual accumulation of fat and cholesterol within blood vessel walls, a process known as atherosclerosis. Cholesterol is a fatty substance that is vital for the normal functioning of the body. However, too much cholesterol is damaging and the risk of developing heart disease is greater in individuals with high cholesterol levels. Heart Health helps assess an individual's risk of developing cardiovascular diseases such as heart disease and stroke.

Total Cholesterol



LDL Cholesterol



HDL Cholesterol



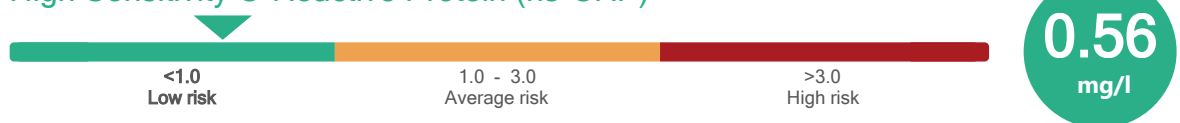
Total Cholesterol / HDL Cholesterol Ratio



Triglycerides



High Sensitivity C-Reactive Protein (hs-CRP)

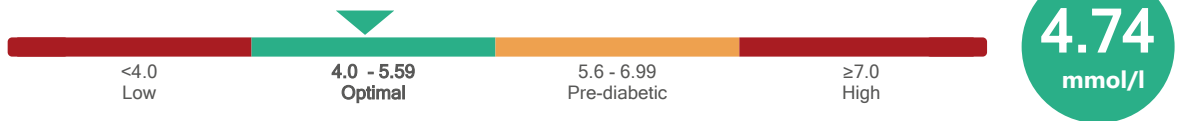




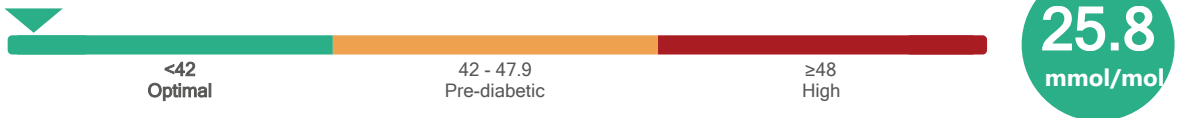
Diabetes Health

Diabetes mellitus is a chronic condition that is characterised by a high blood glucose level. Normally, insulin (a hormone produced by the pancreas) regulates blood glucose levels. Type 1 diabetes is a condition in which the insulin producing cells of the pancreas are destroyed resulting in very little or no insulin production. Type 2 diabetes is a condition in which the pancreas continues to produce insulin but blood sugar levels remain high due to an insufficient amount of insulin or insulin resistance. Although glucose provides an essential fuel for the body, long-term high levels of glucose are destructive, causing damage to blood vessels, nerves and organs. This damage can increase the risk of developing high blood pressure, heart disease, kidney disease and loss of vision. The Diabetes Health panel includes measurement of glucose and HbA1c levels in the blood, which is useful for the diagnosis and monitoring of diabetes. Higher than normal levels can be associated with a greater risk of developing diabetes in the future ('high risk' or 'pre-diabetes').

Glucose



HbA1c





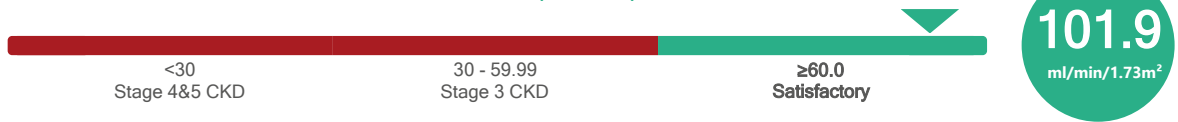
Kidney Health

The kidneys are responsible for the production of urine and regulation of water and salt levels in the blood. The kidneys filter blood to remove waste products, water and salts. The fluid containing these waste products travels through kidney tubules where re-absorption of water and salts takes place. This absorption process is crucial to the maintenance of fluid balance in the body, which is also important for blood pressure regulation. Many conditions can impair the filtering ability of the kidney or lead to destruction of kidney tissue, including urinary tract obstruction, glomerulonephritis and acute kidney injury. Kidney Health helps evaluate the filtering ability of the kidneys and can indicate how well the kidneys are functioning.

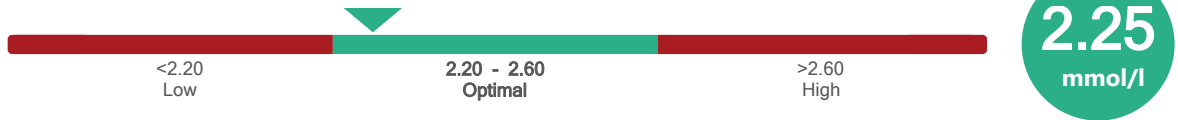
Creatinine



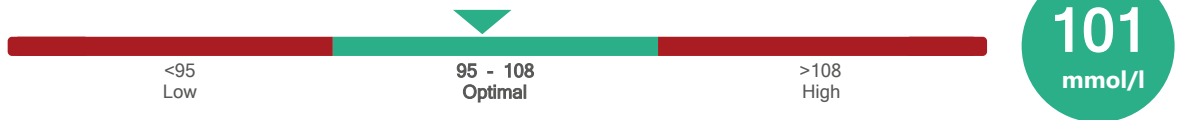
Estimated Glomerular Filtration Rate (eGFR)



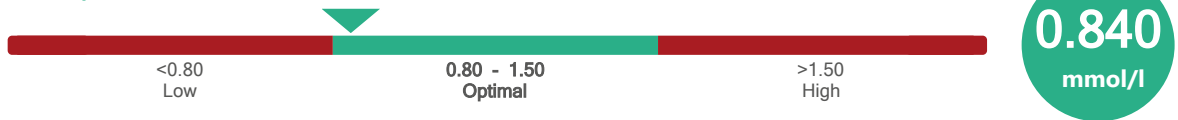
Calcium (adjusted)



Chloride



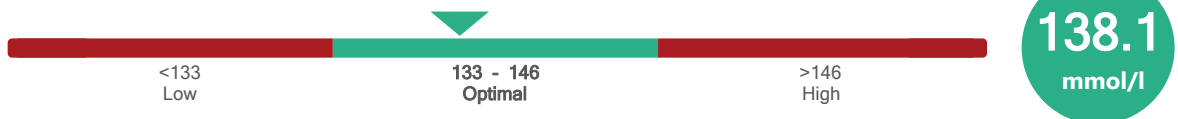
Phosphate



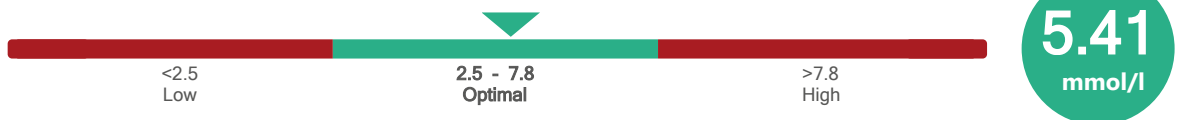
Potassium



Sodium



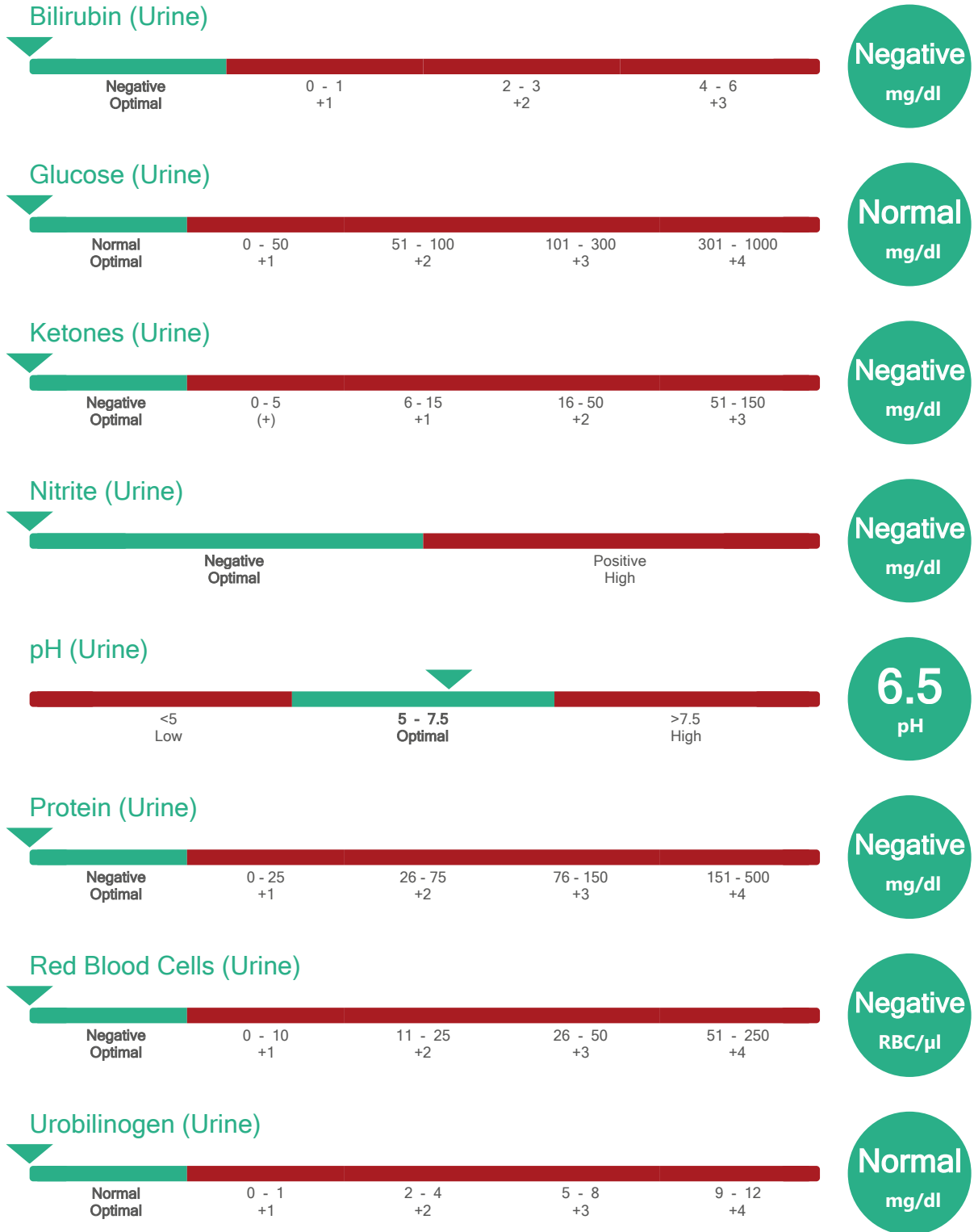
Urea



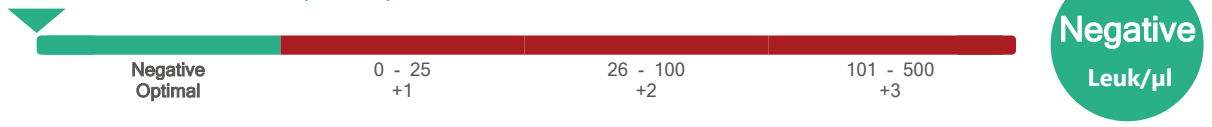


Urinalysis

Urinalysis is part of routine diagnostic and screening evaluations. It can reveal a significant amount of preliminary information about the kidneys and other metabolic processes. Urinalysis tests for substances that are normally not present or are present at low concentrations in the urine. In addition, pH measurement helps determine the acidity of urine and is indicative of acid-base balance in the body.



White Blood Cells (Urine)

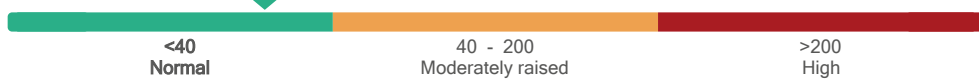




Liver Health

The liver is a vital organ that plays a major role in the regulation of metabolism. The liver performs many complex functions, which include processing of carbohydrates, proteins and fats, breakdown of harmful or toxic substances, decomposition of red blood cells, removal of waste products from the blood and the production and secretion of bile. Bile is a fluid, which aids in the digestion of fats. Once secreted from the liver, bile travels through a series of ducts to the small intestine or to the gallbladder for storage. Liver disease encompasses many conditions that can cause damage to the liver, such as cirrhosis (irreversible scarring of liver tissue), hepatitis (inflammation of the liver), fatty liver disease, gallbladder disease and bile duct obstruction. The Liver Health panel consists of tests that evaluate the function of the liver.

Alanine Aminotransferase (ALT)



30.6
U/l

Alkaline Phosphatase (ALP)



34
U/l

Aspartate Aminotransferase (AST)



33.0
U/l

Gamma-Glutamyltransferase (GGT)



18.3
U/l

Total Bilirubin



12.40
μmol/l

Albumin



49.0
g/l

Ferritin



27
μg/l



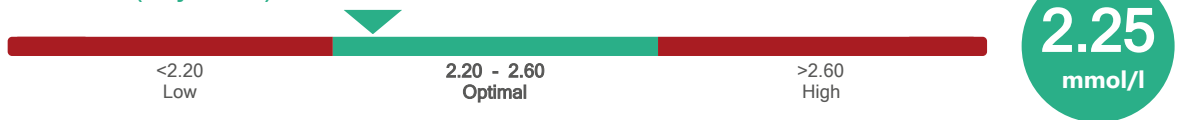
Nutritional Health

Nutrition is the supply of materials (in the form of food), which are necessary to allow the body to function normally. Vitamins and minerals support normal growth, and help organs and cells to function. Therefore, good nutrition is vital for health and wellbeing. A poor diet or malabsorption disorders (conditions caused by an impaired ability to digest and/or absorb nutrients from food) may lead to nutritional deficiency. The Nutritional Health panel evaluates the levels of various nutrients and can help identify whether an individual's nutritional status is adequate.

Albumin



Calcium (adjusted)



Vitamin D





Bone Health

Bones provide structural support for the body and offer protection to delicate organs and tissues (e.g. the ribs protect the heart and lungs and the skull protects the brain). Bones are subject to a continuous remodelling process where old bone tissue is replaced with new tissue. For bones to remain strong and healthy, various factors are required, including calcium and vitamin D. Osteoporosis is a condition in which bones lose density and become weak. Risk factors for osteoporosis include oestrogen deficiency (post-menopause), vitamin D deficiency, calcium deficiency and an inactive lifestyle. Bone Health helps evaluate the levels of these important bone-strength factors, which can be useful for identifying individuals at risk of future bone-related health problems.

Alkaline Phosphatase (ALP)



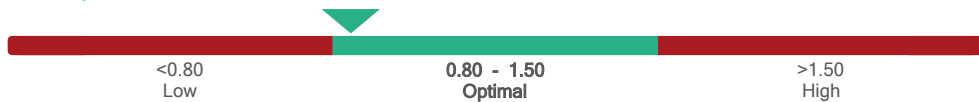
34
U/l

Calcium (adjusted)



2.25
mmol/l

Phosphate



0.840
mmol/l

Vitamin D



113
nmol/l



Infection & Inflammation

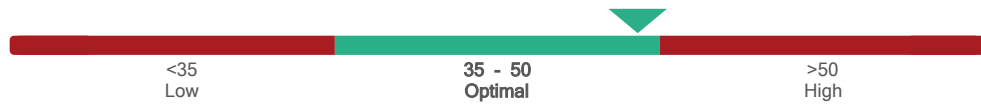
Inflammation is the body's natural response to infection, irritation or injury and is characterised by pain, swelling, warmth and redness of the affected area. Inflammation is a protective mechanism that occurs in an attempt to remove the cause of the injury or irritation and to initiate healing and repair. The Infection & Inflammation panel can indicate the presence of infection or inflammation in the body.

C-Reactive Protein (CRP)



0.56
mg/l

Albumin



49.0
g/l

Ferritin



27
µg/l

Results for your Doctor

This section contains all your test results. Your doctor may prefer to see your test results in this format. The results that are either positive or fall outside the reference range are highlighted in red.

Test	Result	Units	Reference Range
Personal Health Measurements			
Height	1.755	m	N/A
Weight	64	kg	N/A
Body Mass Index (BMI)	20.8	kg/m ²	18.5 - 24.9 Optimal
Waist Circumference	73	cm	<94 Optimal
Hip circumference	86	cm	N/A
Waist / Hip Ratio	0.849		<0.95 Low risk
Pulse	37	BPM	<60 Low 60 - 100 Optimal >100 High
Systolic Blood pressure	124	mmHg	120 - 129.9 Normal
Diastolic Blood pressure	82	mmHg	80 - 84.9 Normal
Full Blood Count			
Haemoglobin	150	g/l	130 - 180 Optimal
Haematocrit	0.455	l/l	0.4 - 0.54 Optimal
Mean Cell Haemoglobin (MCH)	29.8	pg	27.0 - 32.0 Optimal
Mean Cell Haemoglobin Concentration (MCHC)	330	g/l	320 - 360 Optimal
Red Blood Cell Mean Cell Volume (MCV)	90.3	fl	76 - 100 Optimal
Red Blood Cell Count	5.04	10 ¹² /l	4.5 - 6.5 Optimal
Basophil Count	0.04	10 ⁹ /l	0.01 - 0.1 Optimal
Eosinophil Count	0.22	10 ⁹ /l	0.04 - 0.4 Optimal

Test	Result	Units	Reference Range
Lymphocyte Count	1.23	10 ⁹ /l	1.0 - 3.5 Optimal
Monocyte Count	0.52	10 ⁹ /l	0.2 - 0.8 Optimal
Neutrophil Count	1.66	10 ⁹ /l	<2 Low 2 - 7.5 Optimal >7.5 High
White Blood Cell Count	3.67	10 ⁹ /l	<4.0 Low 4.0 - 10.0 Optimal >10.0 High
Platelet Count	204	10 ⁹ /l	150 - 450 Optimal
Iron Status			
Ferritin	27	µg/l	20 - 300 Optimal
Heart Health			
Total Cholesterol	4.22	mmol/l	<5 Desirable
LDL Cholesterol	2.29	mmol/l	<3 Desirable
HDL Cholesterol	1.54	mmol/l	<1.55 Low ≥1.55 Desirable
Total Cholesterol / HDL Cholesterol Ratio	2.74		<5 Desirable
Triglycerides	0.49	mmol/l	<2.3 Desirable
High Sensitivity C-Reactive Protein (hs-CRP)	0.56	mg/l	<1.0 Low risk
Diabetes Health			
Glucose	4.74	mmol/l	4.0 - 5.59 Optimal
HbA1c	25.8	mmol/mol	<42 Optimal
Kidney Health			
Creatinine	79.7	µmol/l	53 - 97 Optimal
Estimated Glomerular Filtration Rate (eGFR)	101.9	ml/min/1.73m ²	≥60.0 Satisfactory
Calcium (adjusted)	2.25	mmol/l	2.20 - 2.60 Optimal

Test	Result	Units	Reference Range
Chloride	101	mmol/l	95 - 108 Optimal
Phosphate	0.840	mmol/l	0.80 - 1.50 Optimal
Potassium	4.79	mmol/l	3.5 - 5.3 Optimal
Sodium	138.1	mmol/l	133 - 146 Optimal
Urea	5.41	mmol/l	2.5 - 7.8 Optimal

Urinalysis

Bilirubin (Urine)	Negative	mg/dl	Negative Optimal
Glucose (Urine)	Normal	mg/dl	Normal Optimal
Ketones (Urine)	Negative	mg/dl	Negative Optimal
Nitrite (Urine)	Negative	mg/dl	Negative Optimal
pH (Urine)	6.5	pH	5 - 7.5 Optimal
Protein (Urine)	Negative	mg/dl	Negative Optimal
Red Blood Cells (Urine)	Negative	RBC/ μ l	Negative Optimal
Urobilinogen (Urine)	Normal	mg/dl	Normal Optimal
White Blood Cells (Urine)	Negative	Leuk/ μ l	Negative Optimal

Liver Health

Alanine Aminotransferase (ALT)	30.6	U/l	<40 Normal
Alkaline Phosphatase (ALP)	34	U/l	30 - 120 Optimal
Aspartate Aminotransferase (AST)	33.0	U/l	<40 Normal
Gamma-Glutamyltransferase (GGT)	18.3	U/l	10 - 71 Optimal
Total Bilirubin	12.40	μ mol/l	<21 Optimal
Albumin	49.0	g/l	35 - 50 Optimal

Test	Result	Units	Reference Range
Ferritin	27	µg/l	20 - 300 Optimal
Nutritional Health			
Albumin	49.0	g/l	35 - 50 Optimal
Calcium (adjusted)	2.25	mmol/l	2.20 - 2.60 Optimal
Vitamin D	113	nmol/l	50 - 375 Sufficiency
Bone Health			
Alkaline Phosphatase (ALP)	34	U/l	30 - 120 Optimal
Calcium (adjusted)	2.25	mmol/l	2.20 - 2.60 Optimal
Phosphate	0.840	mmol/l	0.80 - 1.50 Optimal
Vitamin D	113	nmol/l	50 - 375 Sufficiency
Infection & Inflammation			
C-Reactive Protein (CRP)	0.56	mg/l	≤5 Optimal
Albumin	49.0	g/l	35 - 50 Optimal
Ferritin	27	µg/l	20 - 300 Optimal