

**RANDOX**  
**HEALTH**

PID	XXXXXX
Name	Example Report
DOB	dd-Mmm-yyyy
Date	dd-Mmm-yyyy
Programme	Advanced GP3 (Male)

## Personal Health Plan

Your Personal Health Plan is outlined below to guide you through your results.

Health Status



















Health Performance

Your Results

Radox Health Scientists report upon your complete set of results and the information provided in your Physical Medical Lifestyle Questionnaire (PMLQ).

If we can be of any further assistance, please contact your Personal Coordinator.

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# Your Results of Interest

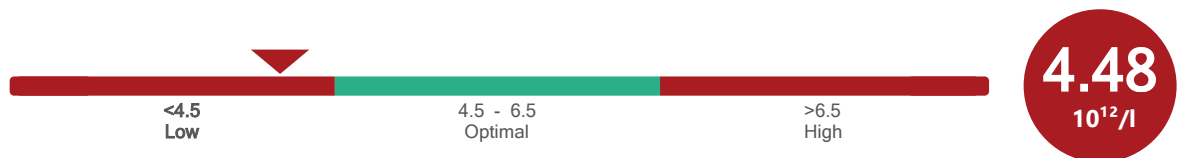
The results presented in this section are a summary of all the tests that are either positive or fall outside the reference ranges. What does this mean? A reference range is a term used to determine if your results are within what is considered to be the 'normal' range of the population. If your results 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.



## Full Blood Count

### Red Blood Cell Count

Red Blood Cell Count is a measure of the number of red blood cells (RBCs) per unit volume of blood that, in conjunction with haemoglobin and haematocrit values, can help to evaluate anaemia (too few RBCs) and polycythaemia (too many RBCs). An increased RBC count may be associated with dehydration, smoking, lung disease, excess erythropoietin production (a hormone that is essential for RBC production) or polycythaemia vera (a rare blood disorder in which the bone marrow produces too many RBCs). A decreased RBC count may be associated with nutritional deficiencies (e.g. folic acid, vitamin B12 or iron-deficiency), haemolytic anaemia (anaemia caused by RBC destruction), excessive bleeding or chronic inflammatory diseases.



## Heart Health

### LDL Cholesterol

LDL Cholesterol describes cholesterol that is bound to low-density lipoprotein (LDL). Lipoproteins are responsible for transporting cholesterol in the blood. LDL cholesterol deposits excess cholesterol in the walls of blood vessels, which can narrow blood vessels or lead to blockage of blood flow to organs such as the heart and brain (a process known as atherosclerosis). Increased LDL cholesterol levels are associated with increased risk of atherosclerosis, cardiovascular disease, stroke and liver disease.



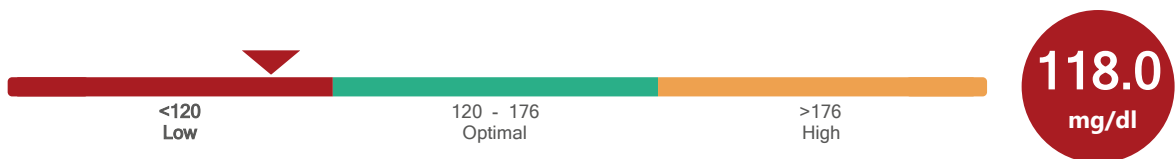
## HDL Cholesterol

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.



## Apolipoprotein A-I

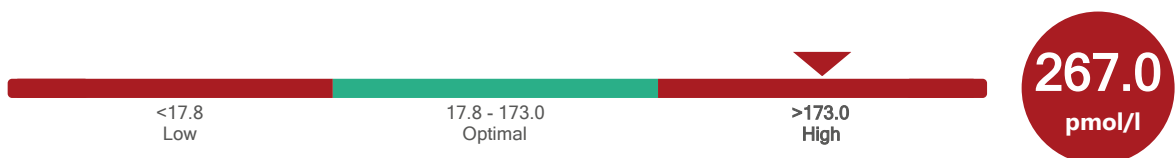
Apolipoprotein A-I is the main protein component of HDL cholesterol ('good' cholesterol). Apolipoprotein A-I (apo A-I) and HDL cholesterol transport cholesterol to the liver where it is processed and subsequently removed from the body. For this reason, a higher apo A-I level is desirable and deficiency is associated with increased risk of developing cardiovascular disease. Low apo A-I levels may be associated with uncontrolled diabetes, kidney or liver disease, obesity, smoking, high triglyceride levels or certain medications (e.g. beta-blockers). Increased levels of apo A-I may not be clinically significant but can be associated with familial hyperalphalipoproteinaemia (a rare genetic disorder), alcohol consumption, physical exercise, pregnancy, weight loss and certain prescribed drugs (such as oestrogens, oral contraceptives and statins).



## Diabetes Health

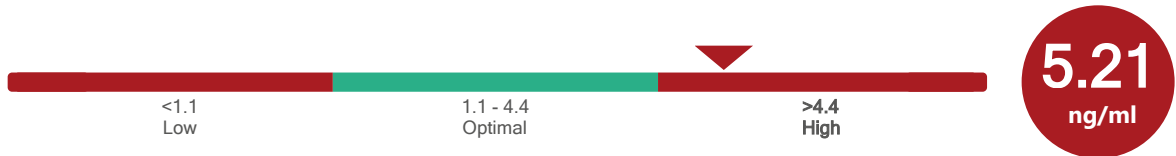
### Insulin

Insulin is a hormone produced by the pancreas that is essential for regulation of blood glucose levels. Increased insulin levels are associated with insulin resistance, which is a feature of type 2 diabetes and metabolic syndrome. An elevated insulin level may also be associated with obesity, hypoglycaemia (low blood glucose), insulinoma (a rare insulin-producing tumour of the pancreas) or Cushing's syndrome (a rare condition in which the adrenal glands are overactive). Decreased insulin levels may be associated with hypopituitarism (a rare condition in which the pituitary gland is underactive), chronic pancreatitis (inflammation of the pancreas) and type 1 diabetes.



## C-peptide

C-peptide is released from the pancreas to the bloodstream during production of insulin. C-peptide is a useful marker of insulin production and may aid the evaluation of individuals with hypoglycaemia (low blood sugar) or metabolic syndrome (a set of risk factors for diabetes and cardiovascular disease occurring simultaneously). Elevated C-peptide levels may be associated with insulin resistance (a key feature of type 2 diabetes), pregnancy, low potassium levels, kidney failure and rare conditions such as Cushing's syndrome (overactive adrenal glands) and insulinoma (an insulin-producing tumour of the pancreas).



## Metabolic Syndrome

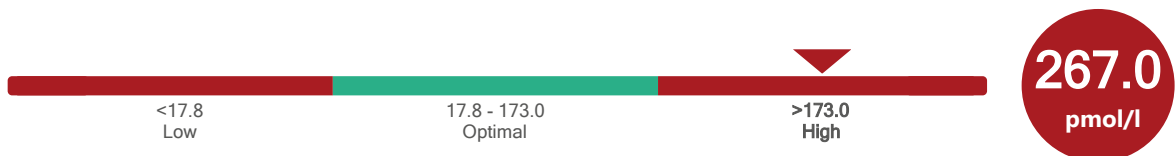
### Triglycerides

Triglycerides are obtained from the diet and are the most abundant form of fat stored by the body. Any food not immediately converted to energy by the body is stored as triglycerides for use when required. Blood triglyceride levels rise after eating a meal. Therefore, the test should be performed following a period of fasting (>12 hours). According to the National Cholesterol Educational Program (NCEP) Adult Treatment Panel III (ATP III), a fasting triglyceride level equal to or greater than 1.7 mmol/l is associated with metabolic syndrome. Additionally, individuals receiving treatment for high triglyceride levels are at risk of metabolic syndrome, irrespective of triglyceride levels.



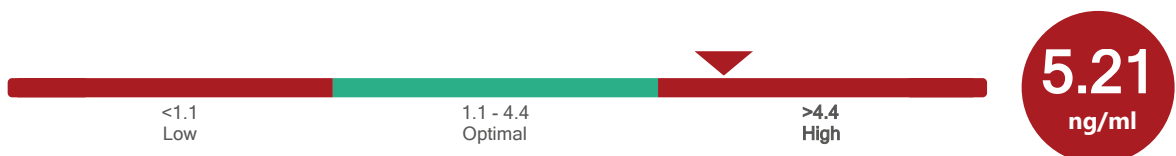
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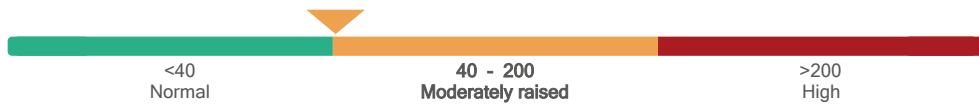




## Liver Health

### Alanine Aminotransferase (ALT)

Alanine Aminotransferase (ALT) is an enzyme mainly found in the liver. Normally, a low level of ALT exists in the serum. Liver injury or disease will release ALT into the bloodstream, thus elevating serum ALT levels. Very high levels of ALT can be due to acute (short-term) hepatitis, often resulting from a viral infection. Moderately high or mildly elevated ALT levels can be associated with chronic liver disease, such as cirrhosis (scarring of the liver), alcohol abuse, cholestasis (blockage of the flow of bile from the liver), pancreatitis (inflammation of the pancreas), mononucleosis (viral infection), kidney or heart damage, severe burns, muscle injury or the use of certain medications.



41.7  
U/l



## Pancreatic Health

### Lipase

Lipase is an enzyme, mainly produced by the pancreas, which facilitates digestion of fat from the diet. Elevated lipase levels may be observed in pancreatitis (inflammation of the pancreas), peptic ulcer disease, pancreatic or stomach cancer, inflammatory bowel disease, alcoholism and kidney or liver disease. Decreased lipase levels may be associated with permanent damage to the lipase-producing cells of the pancreas (e.g. in individuals with cystic fibrosis).



73.0  
U/l



## Digestive Health

### *H. pylori*

*H. pylori* is a type of bacteria that infects the stomach and intestine. A positive *H. pylori* antibody test may indicate a current or previous *H. pylori* infection. Infection with *H. pylori* is the most common cause of stomach ulcers, where the protective lining of the stomach is damaged, leading to gastritis (inflammation of the stomach) and symptoms such as indigestion and heartburn.



389.44  
IU/ml

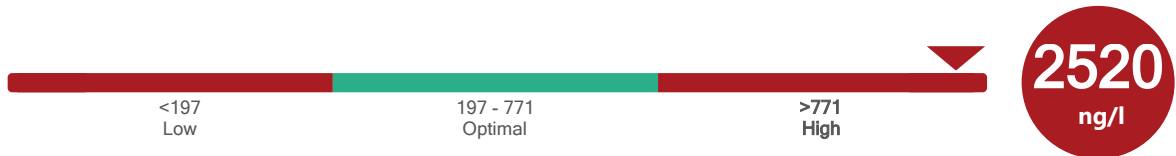




## Nutritional Health

### Vitamin B12

Vitamin B12 along with folic acid is important for the normal development of red blood cells (RBCs). Vitamin B12 is also vital for the normal functioning of nerves. Decreased vitamin B12 levels are associated with megaloblastic anaemia (anaemia due to vitamin B12 or folic acid deficiency) and pernicious anaemia (anaemia due to impaired absorption of vitamin B12 by the intestine). Low vitamin B12 levels may be due to decreased dietary intake, malabsorption disorders (conditions that affect the ability of the intestine to absorb nutrients), gastritis (inflammation of the stomach) or liver disorders that affect vitamin B12 storage. Liver injury, myeloproliferative disorders (a group of conditions in which blood cells grow abnormally) and vitamin C, vitamin A or oestrogen supplementation may cause vitamin B12 levels to rise.



## Allergy Evaluation

### Immunoglobulin E (IgE)

Immunoglobulin E (IgE) is an immune system protein involved in allergic reactions. Exposure of an individual to something that they are allergic to prompts the immune system to generate IgE, which is measurable in the blood. In addition to allergies, elevated IgE levels may also be associated with parasitic infection, asthma and eczema.



## Infection & Inflammation

### Antistreptolysin O (ASO)

Antistreptolysin O (ASO) is a blood test that detects antibodies to the streptolysin O toxin produced by streptococcal bacteria. The presence of ASO antibodies is indicative of a recent or current streptococcal infection. Streptococcal bacteria are commonly associated with throat and skin infections and in the long-term may cause complications including glomerulonephritis (inflammation of the kidney) and endocarditis (inflammation of the lining of the heart).





# Prostate Health

## Total Prostate Specific Antigen (TPSA)

Total Prostate Specific Antigen (TPSA) refers to the combined measurement of 'free' and 'bound' PSA. The prostate gland produces PSA, which exists in two forms in the bloodstream - 'bound' (where it is attached to a protein) or 'free' (not attached to a protein). Increased PSA levels may be associated with prostate cancer, benign prostatic hyperplasia (a non-cancerous swelling of the prostate), prostatitis (inflammation of the prostate), urinary tract infections and enlargement of the prostate that occurs with age. In addition, PSA levels may temporarily increase following ejaculation or vigorous physical activity, such as cycling.

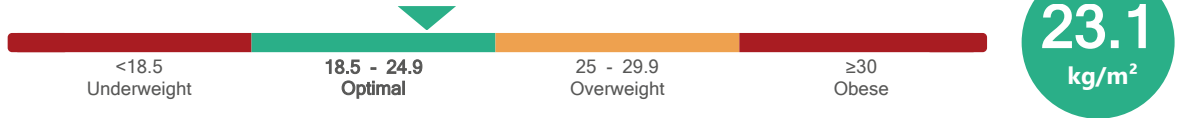




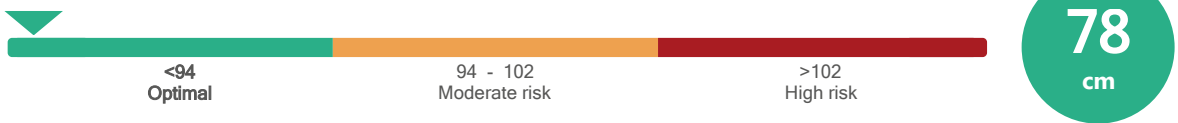
# Personal Health Measurements

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.

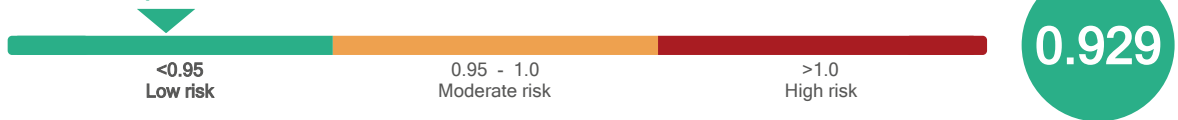
## Body Mass Index (BMI)



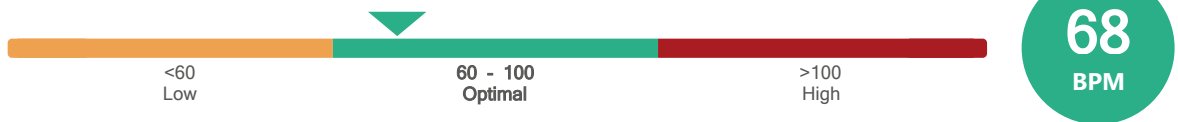
## Waist Circumference



## Waist / Hip Ratio

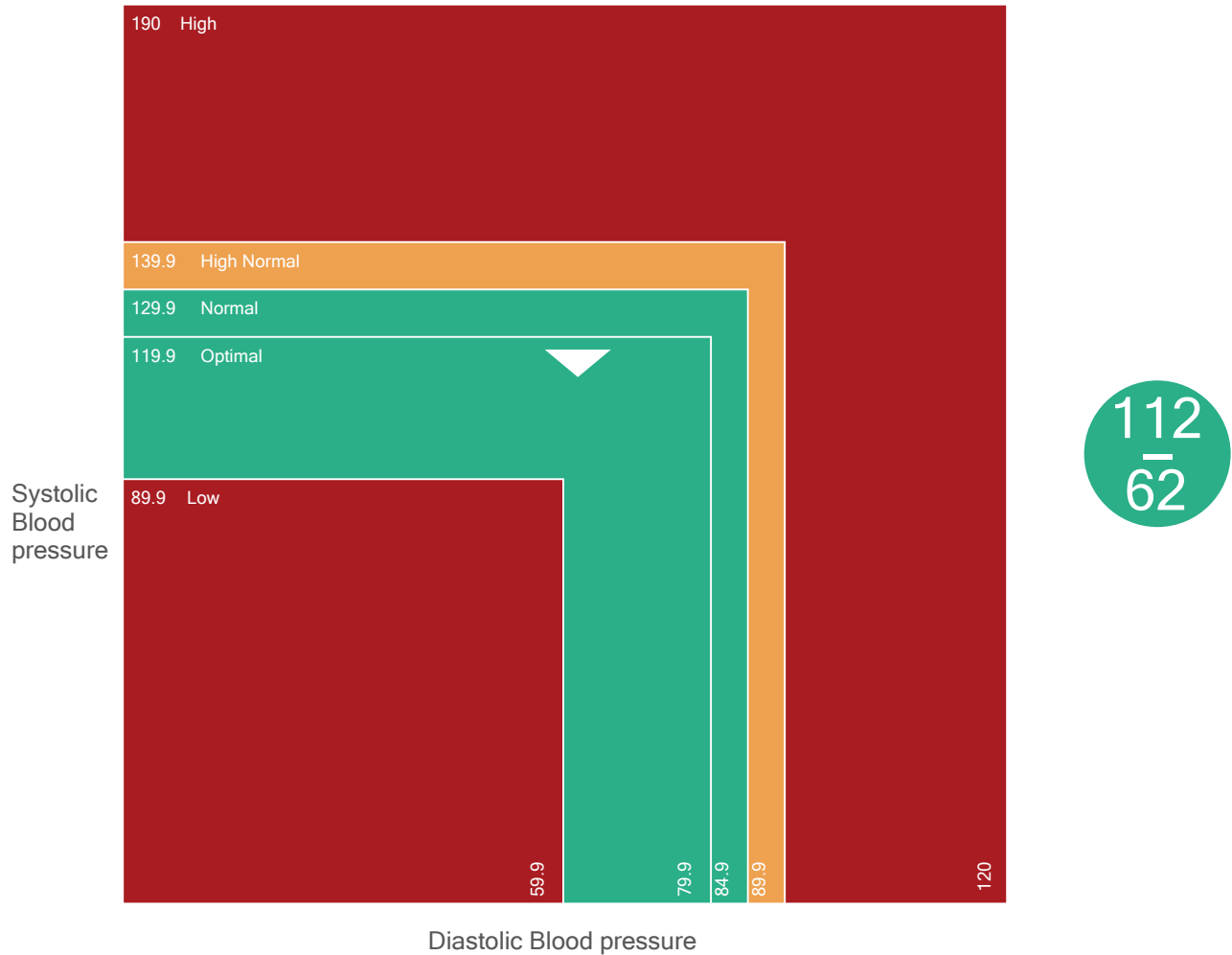


## Pulse



## 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.



## Oxygen Saturation



Height  
1.73 m

Weight  
69 kg

Hip circumference  
84 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



143  
g/l

## Haematocrit



0.441  
l/l

## Mean Cell Haemoglobin (MCH)



31.9  
pg

## Mean Cell Haemoglobin Concentration (MCHC)



324  
g/l

## Red Blood Cell Mean Cell Volume (MCV)



98.4  
fl

## Red Blood Cell Count



4.48  
 $10^{12}/l$

## Basophil Count



0.09  
 $10^9/l$

## Eosinophil Count



0.14  
 $10^9/l$

### Lymphocyte Count



**1.40**  
10<sup>9</sup>/l

### Monocyte Count



**0.48**  
10<sup>9</sup>/l

### Neutrophil Count



**2.99**  
10<sup>9</sup>/l

### White Blood Cell Count



**5.10**  
10<sup>9</sup>/l

### Platelet Count



**293**  
10<sup>9</sup>/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.

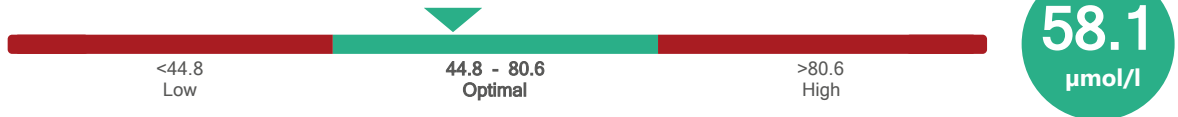
## Iron



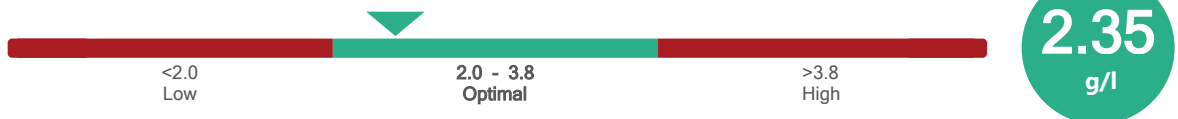
## Ferritin



## Total Iron Binding Capacity (TIBC)



## Transferrin



## Transferrin Saturation





# 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



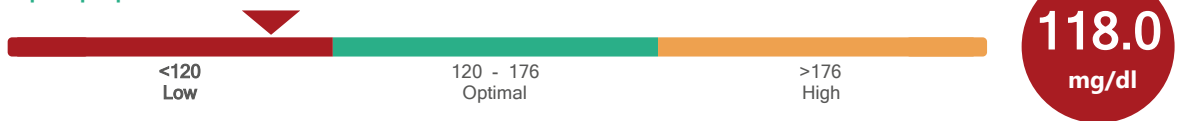
## Total Cholesterol / HDL Cholesterol Ratio



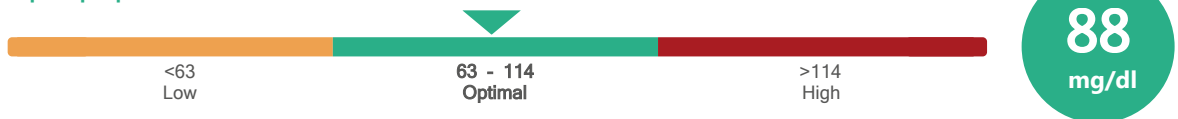
## Triglycerides



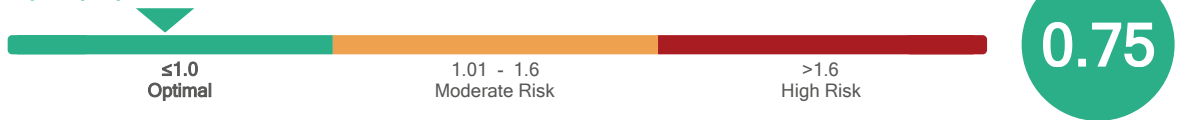
## Apolipoprotein A-I



## Apolipoprotein B



## Apolipoprotein B / A-I Ratio





### Small LDL Cholesterol



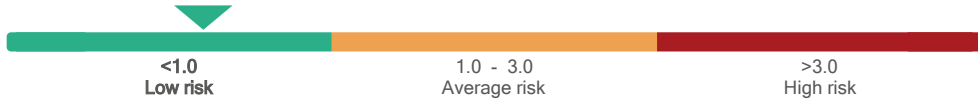
24.76  
mg/dl

### Lipoprotein (a)



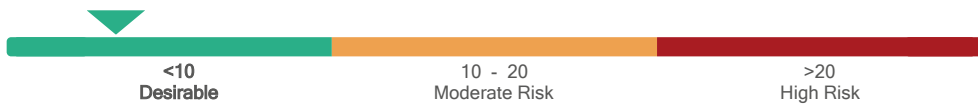
168.0  
mg/l

### High Sensitivity C-Reactive Protein (hs-CRP)



0.44  
mg/l

### Cardiovascular Risk Score



4  
%

$\leq 3\%$  for same age and gender

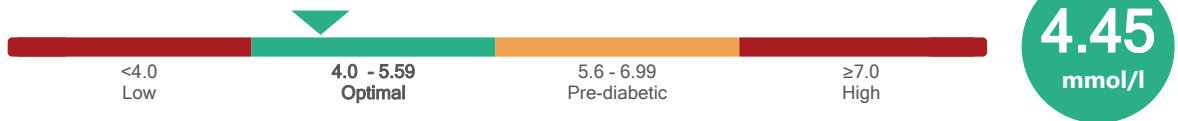
The calculation of the cardiovascular risk score is based on the age range 30 - 74. For individuals outside this age range the calculation is based on the closest limit.



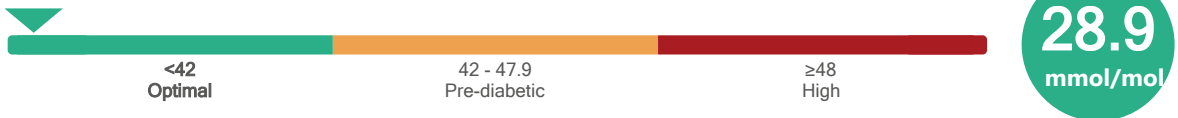
# Diabetes Health

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').

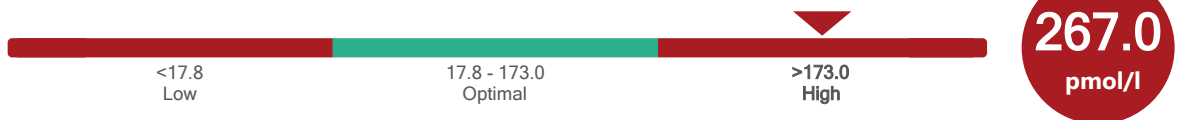
## Glucose



## HbA1c



## Insulin



## C-peptide





# Metabolic Syndrome

Metabolic syndrome refers to a collection of risk factors occurring simultaneously that together increase the risk of developing cardiovascular disease, type 2 diabetes and stroke. The National Cholesterol Educational Program (NCEP) Adult Treatment Panel III (ATP III) has defined metabolic syndrome as the presence of three or more of the following five factors: central obesity (increased body mass index (BMI) or waist circumference), high blood pressure, high fasting blood glucose, low HDL cholesterol, and elevated triglycerides. Previous diagnosis of type-2 diabetes, treatment for high blood pressure, or specific treatments for low HDL cholesterol and high triglycerides also count as factors. The risk of future heart disease, stroke or diabetes increases with the number of risk factors acquired. The Metabolic Syndrome panel includes the measurement of the five factors mentioned above and is indicative of an individual's risk of future cardiovascular disease and type-2 diabetes.

## Body Mass Index (BMI)



## Waist Circumference



## Systolic Blood pressure



## Diastolic Blood pressure



## Glucose



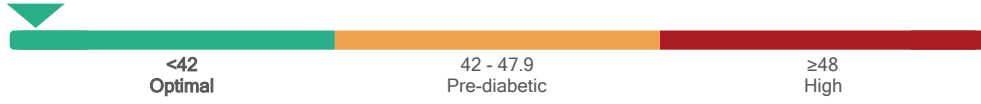
## HDL Cholesterol



## Triglycerides

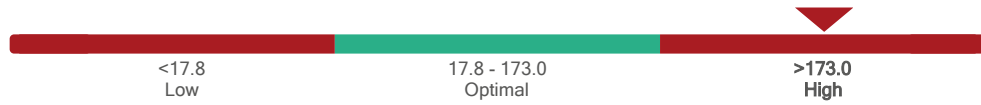


HbA1c



28.9  
mmol/mol

Insulin



267.0  
pmol/l

C-peptide



5.21  
ng/ml

High Sensitivity C-Reactive Protein (hs-CRP)



0.44  
mg/l

Height

1.73 m

Weight

69 kg



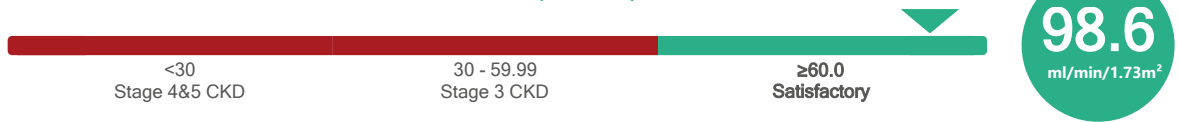
# Kidney Health

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.

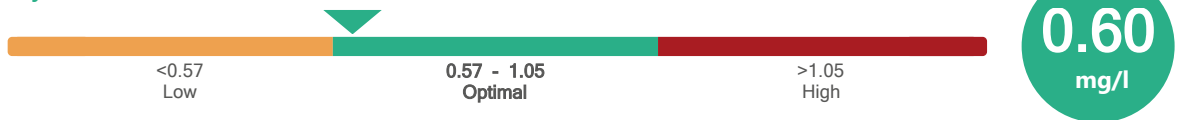
## Creatinine



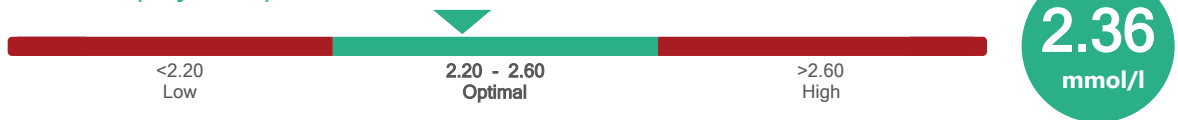
## Estimated Glomerular Filtration Rate (eGFR)



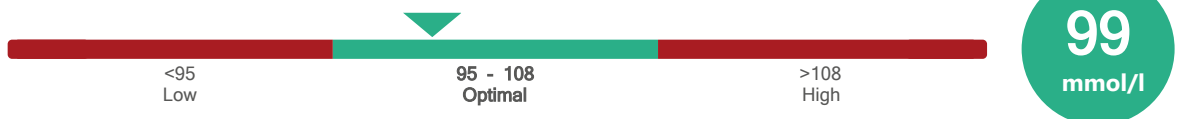
## Cystatin C



## Calcium (adjusted)



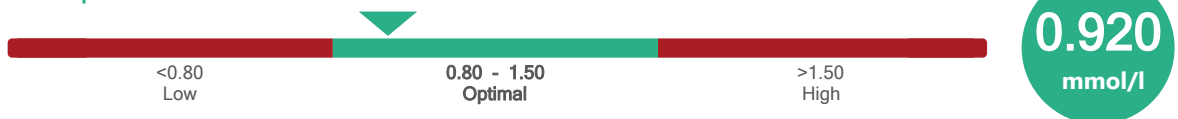
## Chloride



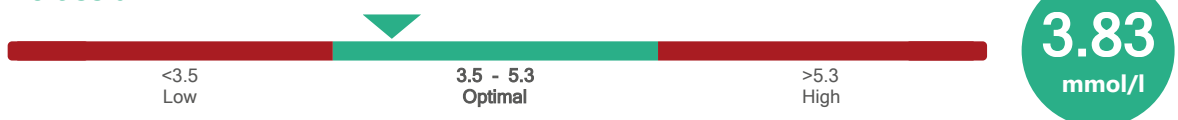
## Magnesium



## Phosphate



## Potassium



### Sodium



**136.1**  
mmol/l

### Urea



**3.87**  
mmol/l

### Uric Acid

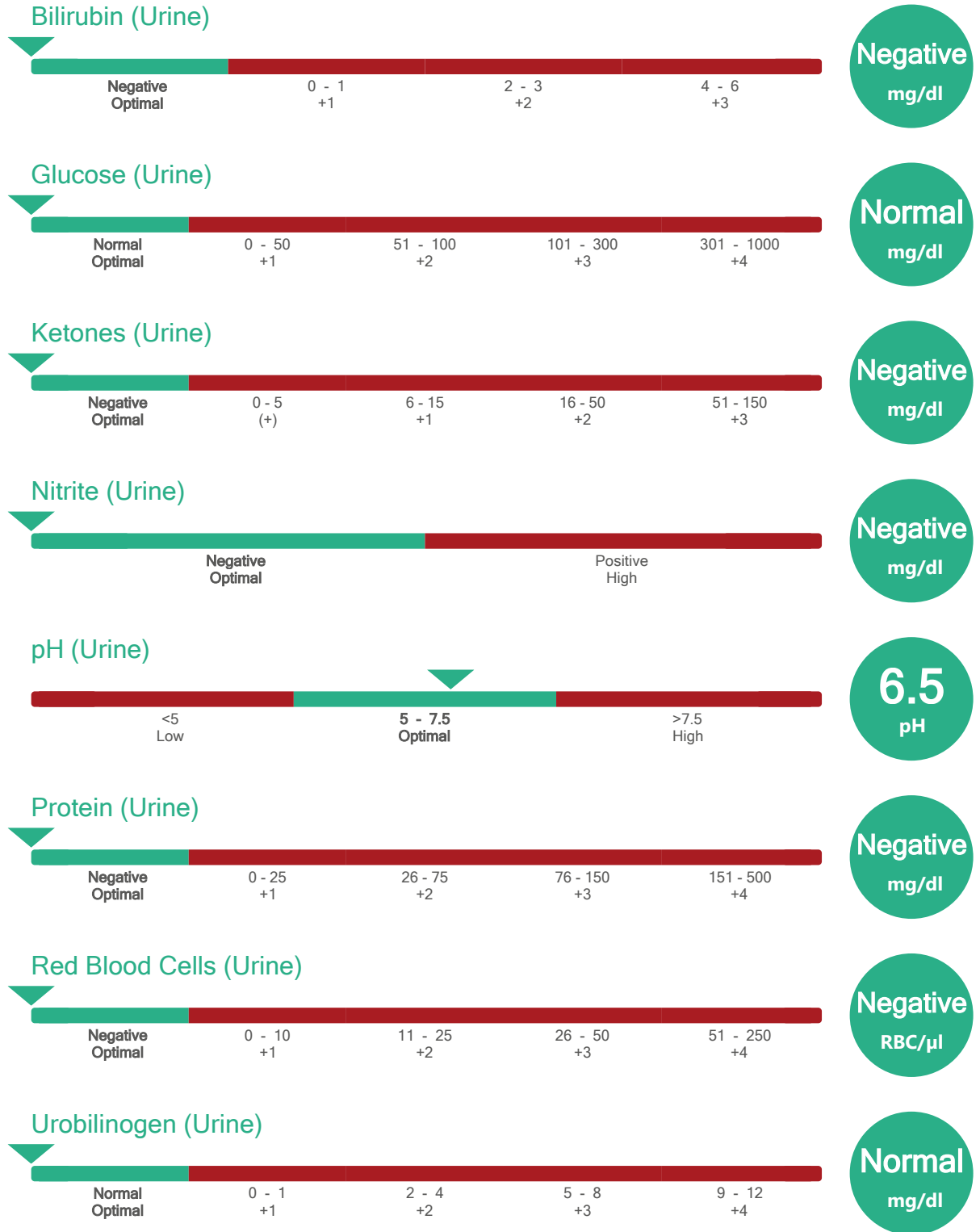


**288.2**  
μmol/l

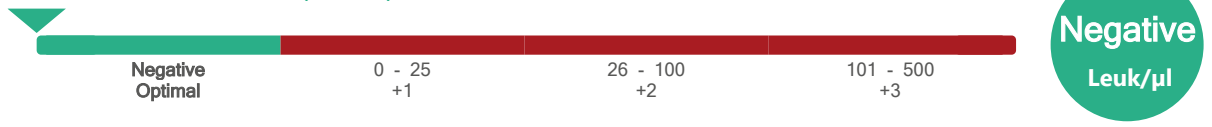


# Urinalysis

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.

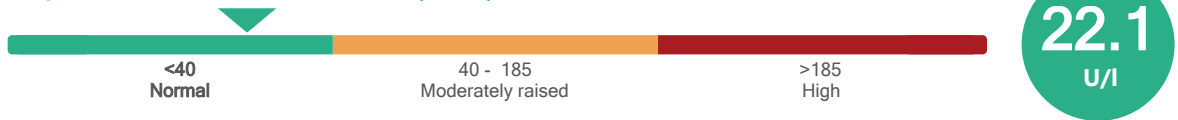
## Alanine Aminotransferase (ALT)



## Alkaline Phosphatase (ALP)



## Aspartate Aminotransferase (AST)



## Gamma-Glutamyltransferase (GGT)



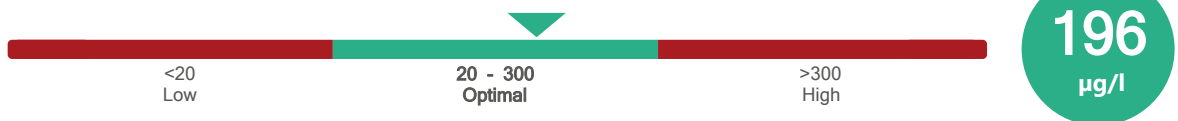
## Total Bilirubin



## Albumin



## Ferritin





# Pancreatic Health

The pancreas is a gland that produces hormones, pancreatic juice and digestive enzymes. Digestive enzymes (e.g. amylase) pass from the pancreas into the small intestine where they contribute to digestion. These enzymes help to further breakdown carbohydrates, proteins and fats in chyme (the partially digested mass of food). Pancreatic Health is useful for evaluating pancreatitis (inflammation of the pancreas) and other disorders that can affect the function of the pancreas.

## Pancreatic Amylase



## Lipase





## Digestive Health

The process of digestion occurs in the gastrointestinal tract, which encompasses the stomach and intestine. The stomach is responsible for the storage and breakdown of ingested food. Food and fluids enter the stomach via the oesophagus and mix with stomach acids and digestive enzymes to begin the process of digestion. Partially digested food then enters the intestine where digestion continues and absorption of nutrients occurs. A protective layer of mucus coats the lining of the stomach to prevent damage by digestive acids and enzymes. Anti-inflammatory drug use (such as aspirin) and infection with *H. pylori* bacteria can disrupt this protective layer and lead to gastritis (inflammation of the stomach) and stomach ulcers. Damage to the intestine impairs the ability of the body to digest food and absorb nutrients. Coeliac disease is an autoimmune disorder in which the body's immune system reacts to gluten in the diet causing inflammation of the intestine. Anti-tissue Transglutaminase (Anti-tTG) Antibody is a sensitive marker for coeliac disease; however, testing is only appropriate in individuals who continue to consume gluten. The Digestive Health panel contains markers that are useful for the evaluation of health issues such as heartburn, acid reflux and coeliac disease.

*H. pylori*



Anti-Tissue Transglutaminase Antibodies (Coeliac Disease)





# 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.

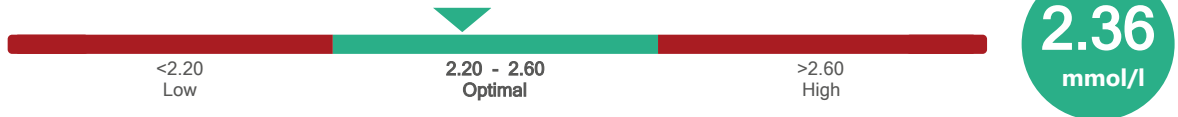
## Total Antioxidant Status (TAS)



## Albumin



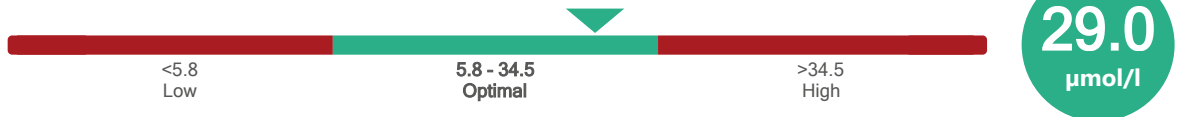
## Calcium (adjusted)



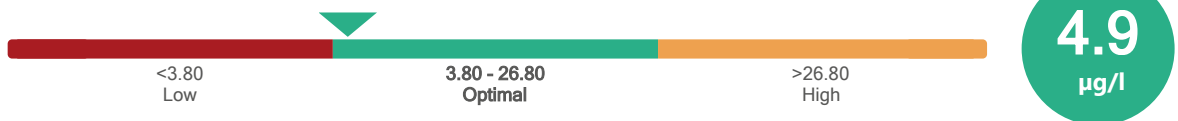
## Magnesium



## Iron



## Folic acid



## Vitamin B12



## Vitamin D

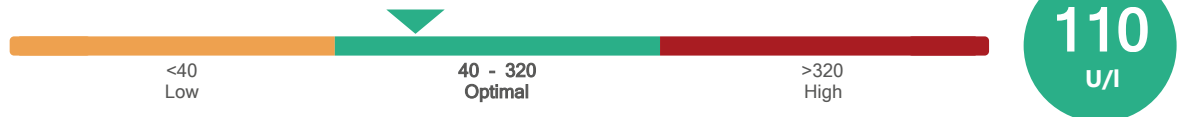




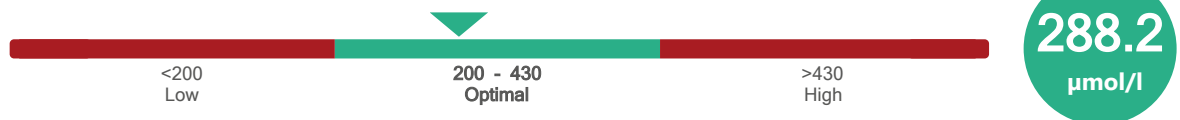
## Muscle & Joint Health

Muscles, which are composed of bundles of contractile fibres, are responsible for the movement of various parts of the body. When muscle fibres contract, movement occurs. Damage to muscles occurs in conditions such as myopathies (muscle disorders that cause muscle weakness) and myositis (inflammation of the skeletal muscles). In addition, muscle damage can arise from injury and excessive use of muscles during exercise. Joints form the connections between bones and permit movement and flexibility in various parts of the body. Arthritis is a condition characterised by inflammation, pain and stiffness of the joints and many types exist, including rheumatoid arthritis and gout. The Muscle & Joint Health panel includes markers associated with muscle damage and joint problems such as arthritis and gout.

### Creatine Kinase



### Uric Acid



### Rheumatoid Factor (RF)





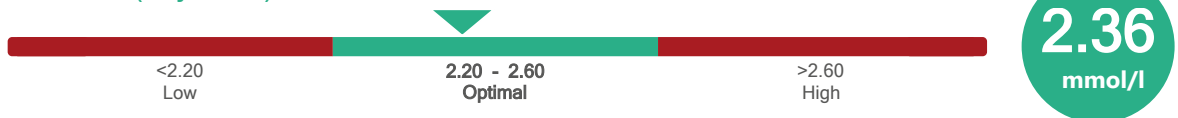
# Bone Health

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.

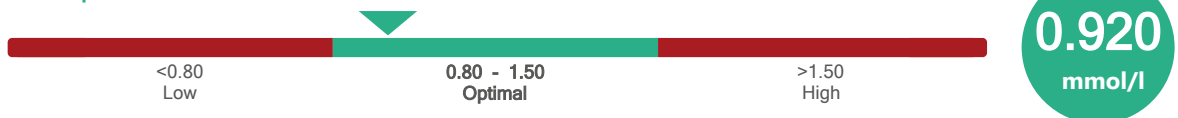
## Alkaline Phosphatase (ALP)



## Calcium (adjusted)



## Phosphate



## Vitamin D



## Parathyroid Hormone (PTH)





# Allergy Evaluation

Allergies are increasingly common, with estimates suggesting that allergies will affect 25% of the population at some stage in life. An allergy is the immune system's response to a particular food or environmental substance (allergen). This response occurs in predisposed individuals and results in the production of a particular type of immune system protein (antibody) called immunoglobulin E (IgE). Subsequent exposure to the allergen generates IgE, which in turn causes the release of chemicals into the body. This chemical release causes the characteristic symptoms of allergies such as coughing, sneezing and itching. The Allergy Evaluation measures the total IgE level in the blood. However, generation of IgE is dependent on recent exposure to an allergen. The Allergy Evaluation may prove inconclusive in individuals who have limited their exposure to suspected allergens (e.g. removal of wheat from diet or avoidance of pets).

## Immunoglobulin E (IgE)





# 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)



0.44  
mg/l

## Rheumatoid Factor (RF)



<6.72  
kU/l

## Albumin



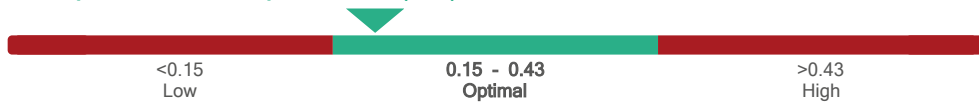
44.5  
g/l

## Complement Component 3 (C3)



0.803  
g/l

## Complement Component 4 (C4)



0.187  
g/l

## Ferritin



196  
µg/l

## Immunoglobulin A (IgA)



1.10  
g/l

## Immunoglobulin G (IgG)



10.00  
g/l



### Immunoglobulin M (IgM)



**1.40**  
g/l

### Antistreptolysin O (ASO)



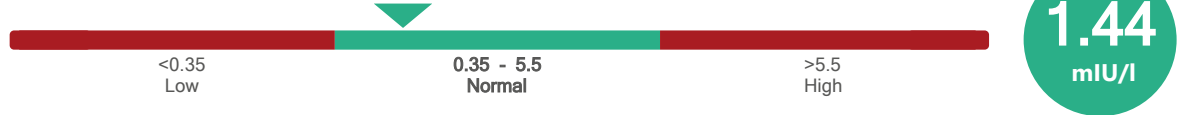
**606.3**  
IU/ml



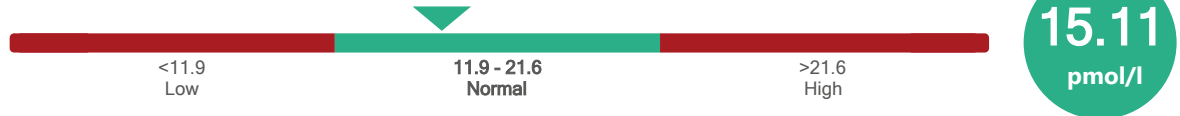
# Thyroid Health

The thyroid gland plays an important role in controlling the body's metabolism by producing hormones. The thyroid hormones help the body to use energy, stay warm and keep the heart, brain, muscle and other organs functioning properly. Thyroid Health consists of tests that can be used to help diagnose an 'underactive thyroid' (hypothyroidism) or an 'overactive thyroid' (hyperthyroidism), or to monitor the treatment of these conditions.

## Thyroid Stimulating Hormone (TSH)



## Free Thyroxine (FT4)



## Free Tri-iodothyronine (FT3)



## Anti-Thyroglobulin Antibody (Anti-Tg)



## Anti-Thyroid Peroxidase Antibody (Anti-TPO)

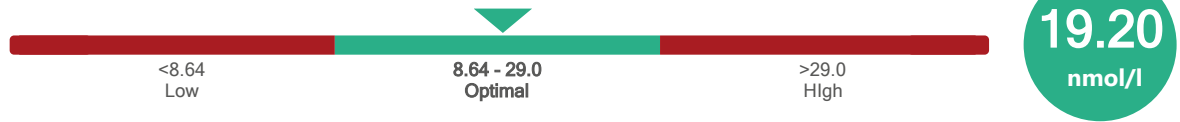




## Male Hormonal Health

A hormone is a chemical substance that is produced in response to certain changes in the physiological processes that occur in the body. Hormones carry information between cells and help regulate metabolism, growth, reproduction and mood alteration. Male Hormonal Health includes measurement of testosterone, which is useful for the evaluation of testicular function.

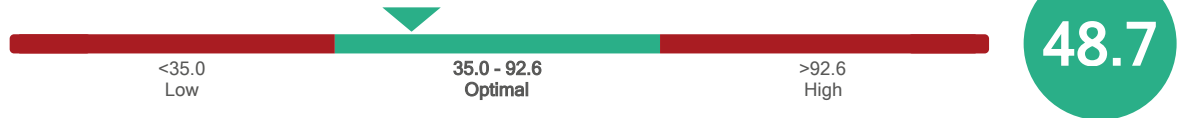
### Testosterone



### Sex Hormone Binding Globulin



### Free Androgen Index





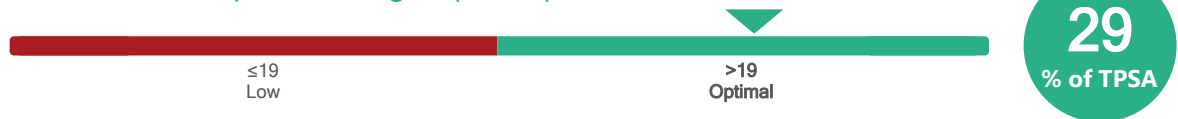
## Prostate Health

Prostate specific antigen (PSA) is a protein produced by cells of the prostate gland. Prostate specific antigen is detectable in the serum of almost all men and levels tend to increase with age and size of the prostate. Although PSA is highly specific for prostate disease, it is not specific for prostate cancer. Two forms of PSA are found in the blood; PSA that is 'free' and PSA that is 'bound' to protein. The combination of these two forms comprises the Total PSA (TPSA). In most cases, this panel consists of the measurement of TPSA alone. However, if TPSA is elevated, Free PSA (FPSA) is also measured and the percentage of FPSA to TPSA is calculated. FPSA is only applicable when TPSA is elevated. It should be noted that in men under the age of 50, no specific reference range exists for TPSA and the ranges provided are for guidance only.

### Total Prostate Specific Antigen (TPSA)



### Free Prostate Specific Antigen (FPSA)



## 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
<b>Personal Health Measurements</b>			
Height	1.73	m	N/A
Weight	69	kg	N/A
Body Mass Index (BMI)	23.1	kg/m <sup>2</sup>	18.5 - 24.9 Optimal
Waist Circumference	78	cm	<94 Optimal
Hip circumference	84	cm	N/A
Waist / Hip Ratio	0.929		<0.95 Low risk
Pulse	68	BPM	60 - 100 Optimal
Systolic Blood pressure	112	mmHg	90 - 119.9 Optimal
Diastolic Blood pressure	62	mmHg	60 - 79.9 Optimal
Oxygen Saturation	99	%	95 - 100 Optimal
<b>Full Blood Count</b>			
Haemoglobin	143	g/l	130 - 180 Optimal
Haematocrit	0.441	l/l	0.4 - 0.54 Optimal
Mean Cell Haemoglobin (MCH)	31.9	pg	27.0 - 32.0 Optimal
Mean Cell Haemoglobin Concentration (MCHC)	324	g/l	320 - 360 Optimal
Red Blood Cell Mean Cell Volume (MCV)	98.4	fl	76 - 100 Optimal
Red Blood Cell Count	4.48	10 <sup>12</sup> /l	<4.5 Low 4.5 - 6.5 Optimal >6.5 High
Basophil Count	0.09	10 <sup>9</sup> /l	0.01 - 0.1 Optimal
Eosinophil Count	0.14	10 <sup>9</sup> /l	0.04 - 0.4 Optimal
Lymphocyte Count	1.40	10 <sup>9</sup> /l	1.0 - 3.5 Optimal

Test	Result	Units	Reference Range
Monocyte Count	0.48	10 <sup>9</sup> /l	0.2 - 0.8 Optimal
Neutrophil Count	2.99	10 <sup>9</sup> /l	2 - 7.5 Optimal
White Blood Cell Count	5.10	10 <sup>9</sup> /l	4.0 - 10.0 Optimal
Platelet Count	293	10 <sup>9</sup> /l	150 - 450 Optimal
Iron Status			
Iron	29.0	µmol/l	5.8 - 34.5 Optimal
Ferritin	196	µg/l	20 - 300 Optimal
Total Iron Binding Capacity (TIBC)	58.1	µmol/l	44.8 - 80.6 Optimal
Transferrin	2.35	g/l	2.0 - 3.8 Optimal
Transferrin Saturation	49.9	%	20 - 50 Optimal
Heart Health			
Total Cholesterol	4.61	mmol/l	<5 Desirable
LDL Cholesterol	3.23	mmol/l	<3 Desirable ≥3 High
HDL Cholesterol	1.07	mmol/l	<1.55 Low ≥1.55 Desirable
Total Cholesterol / HDL Cholesterol Ratio	4.31		<5 Desirable
Triglycerides	2.08	mmol/l	<2.3 Desirable
Apolipoprotein A-I	118.0	mg/dl	<120 Low 120 - 176 Optimal >176 High
Apolipoprotein B	88	mg/dl	63 - 114 Optimal
Apolipoprotein B / A-I Ratio	0.75		≤1.0 Optimal
Small LDL Cholesterol	24.76	mg/dl	≤60.8 Optimal
Lipoprotein (a)	168.0	mg/l	<300 Optimal
High Sensitivity C-Reactive Protein (hs-CRP)	0.44	mg/l	<1.0 Low risk
Cardiovascular Risk Score	4	%	<10 Desirable

Test	Result	Units	Reference Range
<p>≤3% for same age and gender            The calculation of the cardiovascular risk score is based on the age range 30 - 74.            For individuals outside this age range the calculation is based on the closest limit.</p>			
<b>Diabetes Health</b>			
Glucose	4.45	mmol/l	4.0 - 5.59 Optimal
HbA1c	28.9	mmol/mol	<42 Optimal
Insulin	267.0	pmol/l	<17.8 Low 17.8 - 173.0 Optimal >173.0 High
C-peptide	5.21	ng/ml	<1.1 Low 1.1 - 4.4 Optimal >4.4 High
<b>Metabolic Syndrome</b>			
Height	1.73	m	N/A
Weight	69	kg	N/A
Body Mass Index (BMI)	23.1	kg/m <sup>2</sup>	≤30 Optimal
Waist Circumference	78	cm	<94 Optimal
Systolic Blood pressure	112	mmHg	<130 Optimal
Diastolic Blood pressure	62	mmHg	<85 Optimal
Glucose	4.45	mmol/l	<5.6 Optimal
HDL Cholesterol	1.07	mmol/l	≥1.03 Optimal
Triglycerides	2.08	mmol/l	<1.7 Optimal ≥1.7 Risk
HbA1c	28.9	mmol/mol	<42 Optimal
Insulin	267.0	pmol/l	<17.8 Low 17.8 - 173.0 Optimal >173.0 High
C-peptide	5.21	ng/ml	<1.1 Low 1.1 - 4.4 Optimal >4.4 High
High Sensitivity C-Reactive Protein (hs-CRP)	0.44	mg/l	<1.0 Low risk
<b>Kidney Health</b>			

Test	Result	Units	Reference Range
Creatinine	85.8	µmol/l	53 - 97 Optimal
Estimated Glomerular Filtration Rate (eGFR)	98.6	ml/min/1.73m <sup>2</sup>	≥60.0 Satisfactory
Cystatin C	0.60	mg/l	0.57 - 1.05 Optimal
Calcium (adjusted)	2.36	mmol/l	2.20 - 2.60 Optimal
Chloride	99	mmol/l	95 - 108 Optimal
Magnesium	0.83	mmol/l	0.7 - 1.1 Optimal
Phosphate	0.920	mmol/l	0.80 - 1.50 Optimal
Potassium	3.83	mmol/l	3.5 - 5.3 Optimal
Sodium	136.1	mmol/l	133 - 146 Optimal
Urea	3.87	mmol/l	2.5 - 7.8 Optimal
Uric Acid	288.2	µmol/l	200 - 430 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/µl	Negative Optimal
Urobilinogen (Urine)	Normal	mg/dl	Normal Optimal
White Blood Cells (Urine)	Negative	Leuk/µl	Negative Optimal
Liver Health			
Alanine Aminotransferase (ALT)	41.7	U/l	<40 Normal 40 - 200 Moderately raised >200 High
Alkaline Phosphatase (ALP)	57	U/l	30 - 120 Optimal



Test	Result	Units	Reference Range
Aspartate Aminotransferase (AST)	22.1	U/l	<40 Normal
Gamma-Glutamyltransferase (GGT)	29.4	U/l	10 - 71 Optimal
Total Bilirubin	8.78	µmol/l	<21 Optimal
Albumin	44.5	g/l	35 - 50 Optimal
Ferritin	196	µg/l	20 - 300 Optimal
<b>Pancreatic Health</b>			
Pancreatic Amylase	41	U/l	13 - 53 Optimal
Lipase	73.0	U/l	<5 Low 5 - 65 Optimal >65 High
<b>Digestive Health</b>			
H. pylori	389.44	IU/ml	≤81.07 Negative >81.07 Positive
Anti-Tissue Transglutaminase Antibodies (Coeliac Disease)	Negative	na	Positive Negative
<b>Nutritional Health</b>			
Total Antioxidant Status (TAS)	2.29	mmol/l	≥1.3 Optimal
Albumin	44.5	g/l	35 - 50 Optimal
Calcium (adjusted)	2.36	mmol/l	2.20 - 2.60 Optimal
Magnesium	0.83	mmol/l	0.7 - 1.1 Optimal
Iron	29.0	µmol/l	5.8 - 34.5 Optimal
Folic acid	4.9	µg/l	3.80 - 26.80 Optimal
Vitamin B12	2520	ng/l	<197 Low 197 - 771 Optimal >771 High
Vitamin D	97	nmol/l	50 - 375 Sufficiency
<b>Muscle &amp; Joint Health</b>			
Creatine Kinase	110	U/l	40 - 320 Optimal
Uric Acid	288.2	µmol/l	200 - 430 Optimal
Rheumatoid Factor (RF)	<6.72	kU/l	<20 Optimal

Test	Result	Units	Reference Range
<b>Bone Health</b>			
Alkaline Phosphatase (ALP)	57	U/l	30 - 120 Optimal
Calcium (adjusted)	2.36	mmol/l	2.20 - 2.60 Optimal
Phosphate	0.920	mmol/l	0.80 - 1.50 Optimal
Vitamin D	97	nmol/l	50 - 375 Sufficiency
Parathyroid Hormone (PTH)	1.7	pmol/l	1.6 - 6.9 Optimal
<b>Allergy Evaluation</b>			
Immunoglobulin E (IgE)	107.3	kU/l	≤100 Optimal >100 High
<b>Infection &amp; Inflammation</b>			
C-Reactive Protein (CRP)	0.44	mg/l	≤5 Optimal
Rheumatoid Factor (RF)	<6.72	kU/l	<20 Optimal
Albumin	44.5	g/l	35 - 50 Optimal
Complement Component 3 (C3)	0.803	g/l	0.8 - 1.6 Optimal
Complement Component 4 (C4)	0.187	g/l	0.15 - 0.43 Optimal
Ferritin	196	µg/l	20 - 300 Optimal
Immunoglobulin A (IgA)	1.10	g/l	0.9 - 4.5 Optimal
Immunoglobulin G (IgG)	10.00	g/l	6 - 16 Optimal
Immunoglobulin M (IgM)	1.40	g/l	0.6 - 2.5 Optimal
Antistreptolysin O (ASO)	606.3	IU/ml	≤200 Optimal >200 High
<b>Thyroid Health</b>			
Thyroid Stimulating Hormone (TSH)	1.44	mIU/l	0.35 - 5.5 Normal
Free Thyroxine (FT4)	15.11	pmol/l	11.9 - 21.6 Normal
Free Tri-iodothyronine (FT3)	5.61	pmol/l	3.1 - 6.8 Normal
Anti-Thyroglobulin Antibody (Anti-Tg)	14.5	IU/ml	≤115 Optimal
Anti-Thyroid Peroxidase Antibody (Anti-TPO)	<9.00	kU/l	≤34 Optimal

Test	Result	Units	Reference Range
<b>Male Hormonal Health</b>			
Testosterone	19.20	nmol/l	8.64 - 29.0 Optimal
Sex Hormone Binding Globulin	39.40	nmol/l	18.3 - 54.1 Optimal
Free Androgen Index	48.7		35.0 - 92.6 Optimal
<b>Prostate Health</b>			
Total Prostate Specific Antigen (TPSA)	1.53	ng/ml	≤1.4 Optimal >1.4 High
Free Prostate Specific Antigen (FPSA)	29	% of TPSA	>19 Optimal