Order	xxx-xxxxxxxx
Name	Example Name
Date of Birth	xx-xxx-xxxx
Fasted For	Non-fasting Sample
Date of Sample Collection	xx-xxx-xxxx
Date of Report	xx-xxx-xxxx
Programme	Basic Screen

CONTENTS

Health Status

76 **%**

◯ Green - In Range

0 **%**

◯ Amber - In Between

24 **%**

◯ Red - Out of Range

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

Mean Cell Haemoglobin (MCH)

Mean Cell Haemoglobin (MCH) is a measure of the average amount (weight) of haemoglobin within a red blood cell. Large red blood cells generally have more haemoglobin (greater MCH) and small red blood cells generally have less haemoglobin (lower MCH). A decreased MCH can occur with iron-deficiency anaemia, which is associated with production of smaller than normal red blood cells. An increased MCH can occur with anaemia due to vitamin B12 or folic acid deficiency, which is associated with production of larger than normal red blood cells.

| <27.0 Low	27.0 - 32.0 Optimal	>32.0 High

32.8 pg
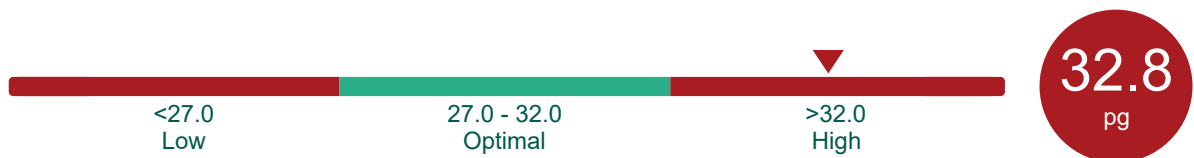
Red Blood Cell Mean Cell Volume (MCV)

Red Blood Cell Mean Cell Volume (MCV) is a measure of the average size of a single red blood cell (RBC), which is useful for determining whether anaemia is microcytic (characterised by small RBCs), normocytic (normal sized RBCs) or macrocytic (large RBCs). A common cause of macrocytic anaemia (increased MCV) is folic acid or vitamin B12 deficiency. Microcytic anaemia (decreased MCV) may indicate iron-deficiency anaemia or thalassaemia (a group of hereditary blood disorders that impair haemoglobin production).

<76.0 Low	76.0 - 100.0 Optimal	>100.0 High

100.7 fl
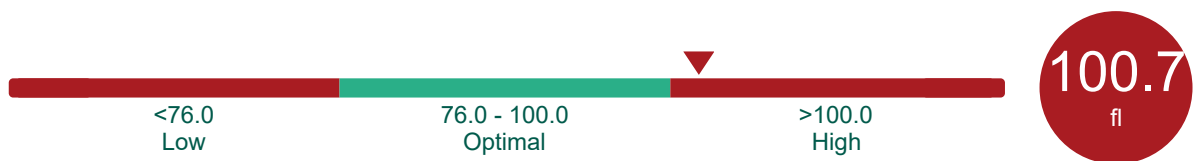
Red Blood Cell Count

Red Blood Cell Count is a measure of the number of red blood cells present in the blood. An increased red blood cell count may indicate that the body is producing too many red blood cells; however, smoking and dehydration can also cause an increase in red blood cell count. A decreased red blood cell count can indicate anaemia, where the body has too few red blood cells and may be associated with nutritional deficiencies (e.g. folic acid, vitamin B12 or iron-deficiency), excessive bleeding or chronic inflammatory diseases.

<4.5 Low	4.5 - 6.5 Optimal	>6.5 High

4.48 10^{12}/L
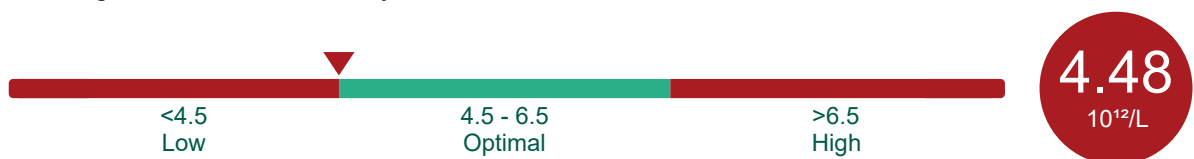
Eosinophil Count

Eosinophil Count refers to the number of eosinophils per volume of blood. Eosinophils are white blood cells that are involved in allergic reactions and in resisting infection. A high eosinophil count may be due to asthma, eczema, hay fever, parasitic infections, autoimmune disease (conditions caused by the generation of an immune response against the body's own tissues), leukaemia and certain medications. A low eosinophil count may be associated with excess production of adrenal hormones (e.g. Cushing's syndrome), alcohol intoxication and stress.

<0.04	0.04 - 0.4	>0.4
Low	Optimal	High

0.56
10⁹/L

Heart Health

Total Cholesterol

Total Cholesterol refers to the measurement of all cholesterol circulating in the blood. Cholesterol is essential for various body functions such as the formation of bile acids, which facilitate digestion and absorption of nutrients, and production of hormones, which are vital for normal growth and development. Elevated total cholesterol levels are associated with increased risk of cardiovascular disease and stroke, as accumulation of cholesterol and fat can narrow blood vessels and impair blood flow. Low total cholesterol levels are associated with decreased risk of cardiovascular disease; however, low total cholesterol may also be associated with other problems, such as malnutrition, malabsorption disorders (conditions that affect the ability of the intestine to absorb nutrients) and liver disease.

<5.0	≥5.0
Desirable	High

5.85
mmol/l

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.

<3.0	≥3.0
Desirable	High

4.5
mmol/l

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.

<1.55	≥1.55
Low	Desirable

1.14
mmol/l

Total Cholesterol / HDL Cholesterol Ratio

Total Cholesterol / HDL Cholesterol Ratio is an indicator of cardiovascular risk. As HDL cholesterol is a 'protective' form of cholesterol, a greater proportion of HDL cholesterol as part of the total cholesterol is beneficial. The ratio of total cholesterol to HDL cholesterol should be less than 5.0. If the ratio is greater than 5.0, intervention may be necessary, either with lifestyle modification and / or with cholesterol lowering medications.
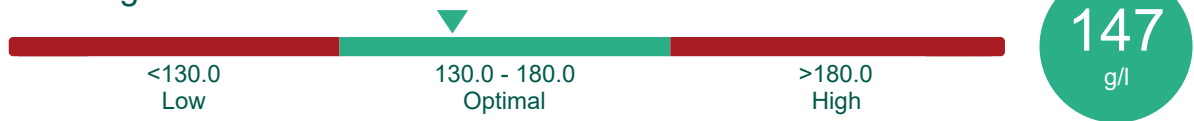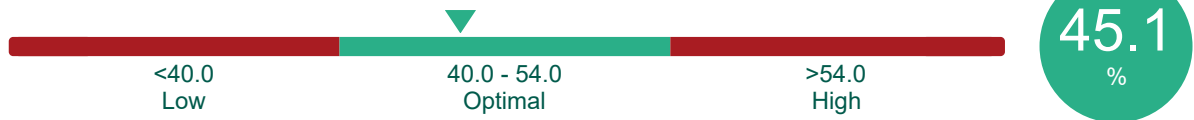
<5.0
Desirable

≥5.0
High

5.13
%

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

<130.0 Low	130.0 - 180.0 Optimal	>180.0 High

147 g/l

Haematocrit

<40.0 Low	40.0 - 54.0 Optimal	>54.0 High

45.1 %

Mean Cell Haemoglobin (MCH)

<27.0 Low	27.0 - 32.0 Optimal	>32.0 High

32.8 pg

Mean Cell Haemoglobin Concentration (MCHC)

<320.0 Low	320.0 - 360.0 Optimal	>360.0 High

326 g/l

Red Blood Cell Mean Cell Volume (MCV)

<76.0 Low	76.0 - 100.0 Optimal	>100.0 High

100.7 fl

Red Blood Cell Count

<4.5 Low	4.5 - 6.5 Optimal	>6.5 High

4.48 10^{12}/L

Basophil Count

<0.01 Low	0.01 - 0.1 Optimal	>0.1 High

0.06 10^9/L

Eosinophil Count

<0.04	0.04 - 0.4	>0.4
Low	Optimal	High
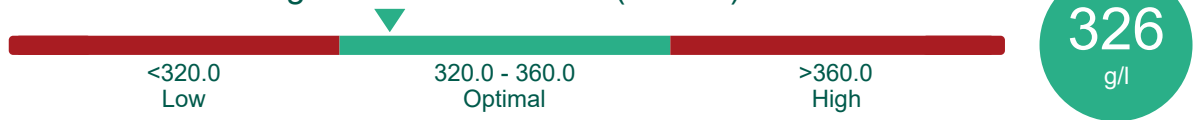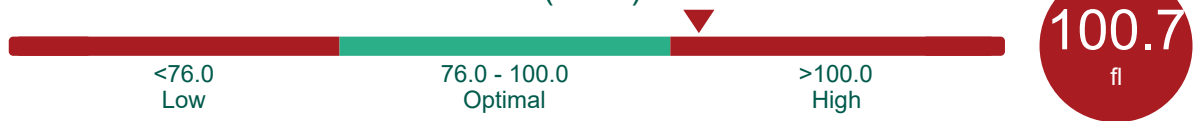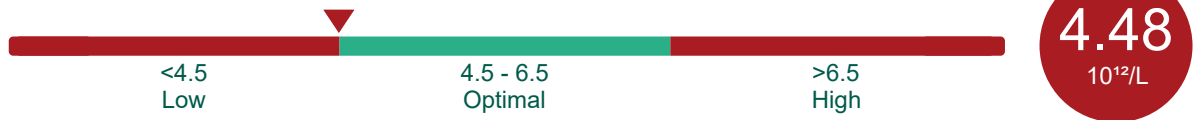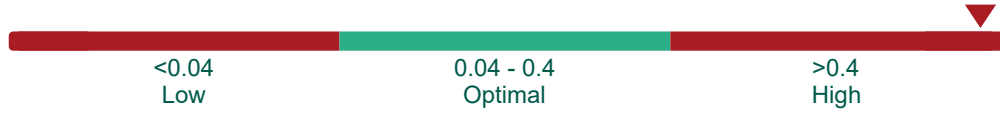
0.56 10⁹/L

Lymphocyte Count

<1.0	1.0 - 3.5	>3.5
Low	Optimal	High

3.29 10⁹/L

Monocyte Count

<0.2	0.2 - 0.8	>0.8
Low	Optimal	High

0.58 10⁹/L

Neutrophil Count

<2.0	2.0 - 7.5	>7.5
Low	Optimal	High

2.19 10⁹/L

White Blood Cell Count

<4.0	4.0 - 10.0	>10.0
Low	Optimal	High

6.68 10⁹/L

Platelet Count

<150	150 - 450	>450
Low	Optimal	High
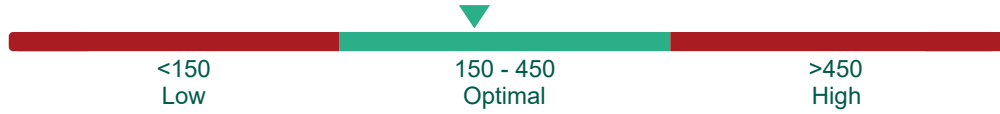
272 10⁹/L

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

<5.0 Desirable	≥5.0 High

5.85 mmol/l

LDL Cholesterol

<3.0 Desirable	≥3.0 High

4.5 mmol/l

HDL Cholesterol

<1.55 Low	≥1.55 Desirable

1.14 mmol/l

Total Cholesterol / HDL Cholesterol Ratio

<5.0 Desirable	≥5.0 High

5.13 %

Triglycerides

<2.3 Desirable	≥2.3 High

2.2 mmol/l

High Sensitivity C-Reactive Protein (hsCRP)

<1 Low Risk	1 - 3 Average Risk	>3 High Risk

0.68 mg/l

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

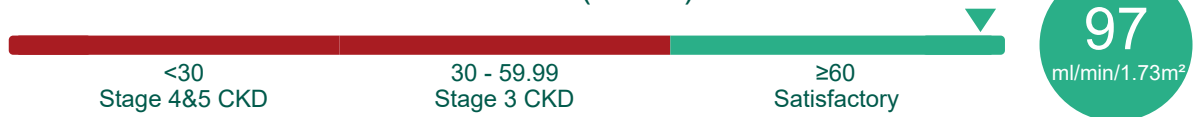| <4.00	4.00 - 5.59	5.60 - 6.99	≥7.00
Low	Optimal	Pre-diabetic	High

4.14 mmol/l

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

<53.0	53.0 - 97.0	>97.0
Low	Optimal	High

79.4 µmol/l

Estimated Glomerular Filtration Rate (eGFR)

<30	30 - 59.99	≥60
Stage 4&5 CKD	Stage 3 CKD	Satisfactory

97 ml/min/1.73m²

Chloride

<95	95 - 108	>108
Low	Optimal	High

99 mmol/l

Phosphate

<0.8	0.8 - 1.5	>1.5
Low	Optimal	High

0.9 mmol/l

Potassium

<3.5	3.5 - 5.3	>5.3
Low	Optimal	High

5.03 mmol/l

Sodium

<133.0	133.0 - 146.0	>146.0
Low	Optimal	High

139.7 mmol/l

Urea

<2.5	2.5 - 7.8	>7.8
Low	Optimal	High
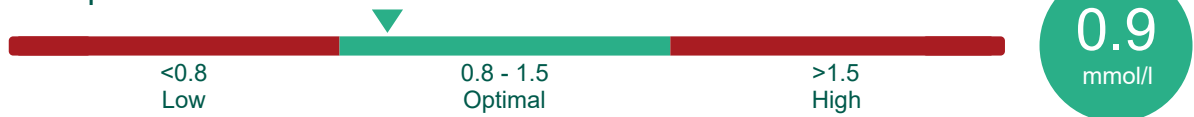
3.56 mmol/l

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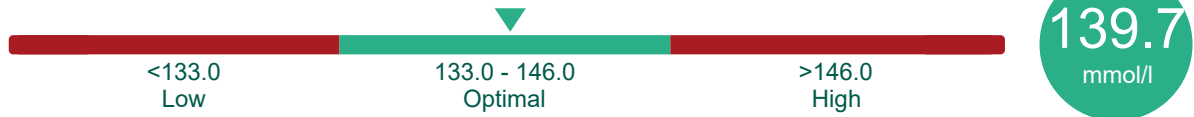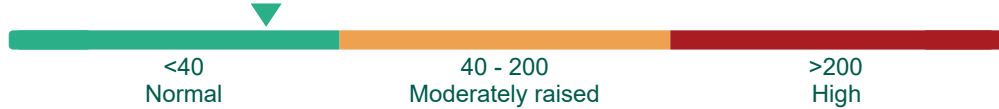, decomposition of red blood cells, removal of waste products from the blood and the production and secretion of bile. Bile is a fluid, which aids in the digestion of fats. Once secreted from the liver, bile travels through a series of ducts to the small intestine or to the gallbladder for storage. Liver 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)

<40	40 - 200	>200
Normal	Moderately raised	High

31 U/l

Alkaline Phosphatase (ALP)

<30	30 - 120	>120
Low	Optimal	High

77 U/l

Aspartate Aminotransferase (AST)

<40	40 - 185	>185
Normal	Moderately raised	High

31 U/l

Gamma-Glutamyltransferase (GGT)

<10.0	10.0 - 71.0	>71.0
Low	Optimal	High

30 U/l

Total Bilirubin

<21.0	≥21.0
Optimal	High

4.52 µmol/l

Albumin

<35.0	35.0 - 50.0	>50.0
Low	Optimal	High

41.4 g/l

Other

Additional tests.

CRP

▼

≤5.0
Optimal

>5.0
High

0.68 mg/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
Full Blood Count			
Haemoglobin	147	g/l	130.0 - 180.0 Optimal
Haematocrit	45.1	%	40.0 - 54.0 Optimal
Mean Cell Haemoglobin (MCH)	32.8	pg	<27.0 Low 27.0 - 32.0 Optimal >32.0 High
Mean Cell Haemoglobin Concentration (MCHC)	326	g/l	320.0 - 360.0 Optimal
Red Blood Cell Mean Cell Volume (MCV)	100.7	fl	<76.0 Low 76.0 - 100.0 Optimal >100.0 High
Red Blood Cell Count	4.48	10^{12}/L	<4.5 Low 4.5 - 6.5 Optimal >6.5 High
Basophil Count	0.06	10^9/L	0.01 - 0.1 Optimal
Eosinophil Count	0.56	10^9/L	<0.04 Low 0.04 - 0.4 Optimal >0.4 High
Lymphocyte Count	3.29	10^9/L	1.0 - 3.5 Optimal
Monocyte Count	0.58	10^9/L	0.2 - 0.8 Optimal
Neutrophil Count	2.19	10^9/L	2.0 - 7.5 Optimal
White Blood Cell Count	6.68	10^9/L	4.0 - 10.0 Optimal
Platelet Count	272	10^9/L	150 - 450 Optimal
Heart Health			
Total Cholesterol	5.85	mmol/l	<5.0 Desirable ≥5.0 High
LDL Cholesterol	4.5	mmol/l	<3.0 Desirable ≥3.0 High
HDL Cholesterol	1.14	mmol/l	<1.55 Low ≥1.55 Desirable
Total Cholesterol / HDL Cholesterol Ratio	5.13	%	<5.0 Desirable ≥5.0 High
Triglycerides	2.2	mmol/l	<2.3 Desirable
High Sensitivity C-Reactive Protein (hsCRP)	0.68	mg/l	<1 Low Risk
Diabetes Health			
Glucose	4.14	mmol/l	4.00 - 5.59 Optimal

Test	Result	Units	Reference Range
Kidney Health			
Creatinine	**79.4**	µmol/l	53.0 - 97.0 Optimal
Estimated Glomerular Filtration Rate (eGFR)	**97**	ml/min/1.73m²	≥60 Satisfactory
Chloride	**99**	mmol/l	95 - 108 Optimal
Phosphate	**0.9**	mmol/l	0.8 - 1.5 Optimal
Potassium	**5.03**	mmol/l	3.5 - 5.3 Optimal
Sodium	**139.7**	mmol/l	133.0 - 146.0 Optimal
Urea	**3.56**	mmol/l	2.5 - 7.8 Optimal
Liver Health			
Alanine Aminotransferase (ALT)	**31**	U/l	<40 Normal
Alkaline Phosphatase (ALP)	**77**	U/l	30 - 120 Optimal
Aspartate Aminotransferase (AST)	**31**	U/l	<40 Normal
Gamma-Glutamyltransferase (GGT)	**30**	U/l	10.0 - 71.0 Optimal
Total Bilirubin	**4.52**	µmol/l	<21.0 Optimal
Albumin	**41.4**	g/l	35.0 - 50.0 Optimal
Other			
CRP	**0.68**	mg/l	≤5.0 Optimal