



## Thyroid Complete Blood Test

Sample

### Understanding your results

#### Optimal vs standard

Optimal ranges for results refer to the values that are considered ideal for good health and can help to prevent disease. These values may be narrower than the standard ranges, and they are based on research that suggests that certain health outcomes are associated with particular levels of specific blood markers. Optimal ranges may differ depending on the individual's age, sex, and health history.

On the other hand, standard ranges for results are the values that are considered normal for most people, based on statistical analysis of a large group of healthy individuals. These ranges are used as a reference to determine whether a patient's test results fall within the expected range for their age, sex, and overall health. Standard ranges are typically wider than optimal ranges, as they take into account a broader range of health conditions and genetic variations.

In summary, optimal ranges for test results aim to identify the most desirable values for good health, while standard ranges provide a reference point to assess a patient's overall health status. Both optimal and standard ranges are useful in interpreting test results, and their interpretation should be done in consultation with a qualified healthcare provider who can consider the individual's unique health situation

### Summary

#### Outside of normal range

<a href="#">Cholesterol</a>	6.31 mmol/L - <b>High</b>
<a href="#">Free T3</a>	4.53 pmol/L - <b>Below Optimal</b>
<a href="#">HDL</a>	1.86 mmol/L - <b>Above Optimal</b>
<a href="#">LDL</a>	4.07 mmol/L - <b>High</b>
<a href="#">TSH</a>	1.13 mU/L - <b>Below Optimal</b>

# Lipids

## Cholesterol



**6.31 mmol/L - High**

Cholesterol is a type of fat that is essential for many bodily functions. It is a key component of cell membranes and is necessary for the production of hormones, vitamin D, and bile acids that aid in digestion. High levels of cholesterol in the blood can increase the risk of cardiovascular disease.

## HDL



**1.86 mmol/L - Above Optimal**

HDL (high-density lipoprotein) is often referred to as the "good" cholesterol. It helps remove excess cholesterol from the blood and transports it to the liver for processing and removal from the body. HDL also has anti-inflammatory and anti-oxidant properties that help protect against heart disease and other health conditions. Higher levels of HDL are associated with a reduced cardiovascular risk, while low levels of HDL can increase the risk.

## LDL



**4.07 mmol/L - High**

LDL (low-density lipoprotein) is often referred to as the "bad" cholesterol. It can contribute to the buildup of plaque in the arteries under specific immune and inflammatory conditions. This increases the risk of heart disease and stroke. High levels of LDL in the blood can lead to the formation of fatty deposits in the blood vessels, which can narrow and harden them over time, reducing blood flow to vital organs.

## Triglyceride



**0.84 mmol/L - Optimal**

Triglycerides are a type of fat found in the blood that are produced in the liver and also obtained from the diet. They are used as a source of energy by the body. High levels of triglycerides can increase the risk of developing heart disease and stroke. Triglyceride levels are affected by factors such as diet, physical activity, and genetics.

# Thyroid Function

## Anti-thyroglobulin Abs



**13.0 IU/mL - Optimal**

Anti-thyroglobulin antibodies (TgAbs) are proteins produced by the immune system that attack thyroglobulin. Thyroglobulin protein is produced by the thyroid gland and is essential for the production of thyroid hormones. High levels of TgAbs in the blood may indicate autoimmune thyroid conditions. TgAb testing is often used as a complementary tool in diagnosing and monitoring thyroid-related health issues.

## Anti-thyroidperoxidase abs



**12.0 IU/mL - Optimal**

Anti-thyroid peroxidase antibodies (TPOAbs) are proteins produced by the immune system that attack thyroid peroxidase. Thyroid peroxidase is an enzyme produced by the thyroid gland that is necessary for the production of thyroid hormones. Elevated levels of TPOAbs in the blood can be associated with autoimmune thyroid conditions. Testing for TPOAbs is used to assess the risk of future thyroid dysfunction in individuals with TPOAbs.

## Free T3



**4.53 pmol/L - Below Optimal**

Free T3 (triiodothyronine) is a hormone produced by the thyroid gland. It plays a role in regulating metabolism, body temperature, and other bodily functions. Free T3 is the active form of T3 that is not bound to proteins in the blood, allowing it to freely circulate throughout the body and be available for use by cells. Measuring Free T3 levels in the blood can be used to evaluate thyroid function and diagnose conditions such as hypothyroidism or hyperthyroidism.

## Free T4



### 16.9 pmol/L - Optimal

Free T4 (thyroxine) is a hormone produced by the thyroid gland. It plays a role in regulating metabolism, growth, and other bodily functions. Free T4 is the active form of T4 that is not bound to proteins in the blood, allowing it to freely circulate throughout the body and be available for use by cells. Measuring Free T4 levels in the blood can be used to evaluate thyroid function and diagnose conditions such as hypothyroidism or hyperthyroidism.

### T4 Total



### 85.5 nmol/L - Optimal

T4 Total is a blood test that measures the total amount of thyroxine (T4) hormone in the blood, including both free T4 and T4 that is bound to proteins in the blood. T4 is produced by the thyroid gland and is important for regulating metabolism, growth, and development in the body. Out of range levels of T4 Total can indicate thyroid dysfunction, such as hypothyroidism or hyperthyroidism. However, it is important to also measure free T4 and other thyroid hormones for a complete assessment of thyroid function.

### TSH



### 1.13 mU/L - Below Optimal

Thyroid-stimulating hormone (TSH) is a hormone released by the pituitary gland in the brain. It regulates the production of thyroid hormones by the thyroid gland in the neck. TSH levels in the blood are used to assess the functioning of the thyroid gland, which produces hormones that are essential for regulating metabolism, growth, and development in the body. Out of range TSH levels can indicate an overactive or underactive thyroid gland, which can cause a range of symptoms and health problems.

## Vitamins

### Vitamin D (25 OH)



### 169.0 nmol/L - Optimal

Vitamin D (25 OH) is a blood test that measures the level of 25-hydroxyvitamin D in the bloodstream. 25-hydroxyvitamin D is a precursor of the active form of vitamin D, which is essential for maintaining healthy bones, teeth, and muscles. Vitamin D is also involved in regulating the immune system and reducing inflammation. Low levels of vitamin D can lead to bone disease, including osteoporosis, and may increase the risk of autoimmune diseases, and other health problems. Vitamin D (25 OH) testing can help to identify deficiencies and guide treatment.