











# TIPS FOR UNDERSTANDING YOUR LAB TESTS

Your lab test results are just one source of health information about you. Results should be considered in the context of all of the information your physicians and other health care providers know about you and your health. Always speak with your health care provider so you can fully understand your results.

## What do the terms used in lab results mean?

When reviewing a lab order, you may notice certain words being used:

- A **REFERENCE RANGE** is the acceptable range that lab test results usually fall into for 95% of healthy individuals.
  - If a result falls within a reference range, the test result is considered  **NORMAL**.  
NORMAL test results typically include:
    - A **NEGATIVE** result on a test that can have either "negative" or "positive" results
    - A **NORMAL** result on a test that can have either "normal" or "abnormal" results
  - If a result falls outside of a reference range, the test result is considered  **ABNORMAL**.  
ABNORMAL test results typically include:
    - A **POSITIVE** result on a test that can have either "negative" or "positive" results
    - An **ABNORMAL** result on a test that can have either "normal" or "abnormal" results
    - A **HIGH** or **LOW** result on a numeric test that can have either "normal" or "abnormal" results
    -  **GROWTH** indicates the culture detected growth of microorganisms potentially associated with infectious disease.
    -  **NO RELEVANT GROWTH** indicates the culture did not detect growth of microorganisms associated with infectious disease.
- If a result has not yet been released by the lab, the test result is marked  **PENDING** and should be available within a few days.
- A test result may be marked with the comment  **SEE DETAILS**. This means that you must view the full details of the lab test report to see the result.
- A test result is considered  **UNINTERPRETED** on Dynacare Plus if it requires your health care provider to interpret the result's significance in context of your current health.
- A test result, whether normal or abnormal, may be marked  **UNAVAILABLE** if a test result has been reported either separately from the standard lab report to your health care provider, sent directly to your health care provider from a referral laboratory or if there are technical difficulties with displaying the results. For questions, please submit a message using Contact Us on Dynacare Plus or call 1-855-748-1115.
- A test may be  **CANCELLED** if the quality of the lab sample collected was compromised during transportation or processing or if the quantity of the lab sample collected was insufficient for testing. The health care provider who ordered the test has been notified of the cancellation and may or may not instruct you to repeat the test, depending on the results of other tests and your current health.
- A test result, whether normal or abnormal, may be marked  **SENSITIVE** due to the private nature of the test. Please contact your health care provider for more details about a sensitive test result.

## What if my result is abnormal?

Keep in mind that 5% of healthy individuals will have results outside of the reference range. Being outside the reference range could be normal for you and not an indication of a health problem.

There are many reasons why a single reading from a test might be outside of a reference range and considered as abnormal. Many factors may influence a lab test range, including:

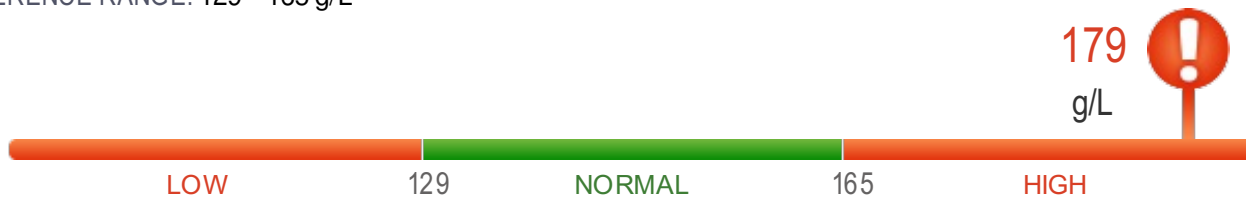
- age
- gender
- medicines you are taking
- conditions you have
- your diet
- whether or not you smoke

An abnormal result may or may not indicate a serious situation. Only your physician or other health care provider can interpret your lab results fully.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

For more information to help you understand your lab test results and to use Dynacare Plus, please visit our <https://www.dynacareplus.com/gdml/faq.html> section.

REFERENCE RANGE: 129 - 165 g/L



Your results are **179**. This is considered **HIGH**.

## About the HEMOGLOBIN test

### What is this lab test?

**Hemoglobin test:** This test measures the amount of hemoglobin, a blood protein, that is present in the red blood cells. This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The function of hemoglobin is to carry oxygen from the lungs to the different parts of the body, and to carry carbon dioxide back to the lungs from different parts of the body. High or low hemoglobin values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your hemoglobin test results were **high abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the hemoglobin lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- You may be one of the 5% of healthy individuals who have test values outside the normal range.

- There may have been some variations in the procedure to check your test levels in the laboratory. This is rare, but it does happen on occasion.

### What conditions and medications may be associated with these test results?

Health conditions and medications associated with **high** hemoglobin levels: There can be many possible causes and effects of an abnormal lab result. The following are some known health conditions and medications associated with **high** hemoglobin levels.

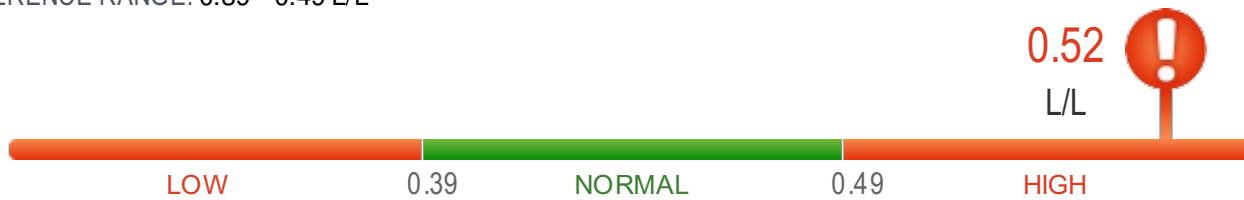
Health conditions and medications are indicated as possible causes (c) or effects (e) of a **high** test result where appropriate evidence exists.

Health conditions and medications associated with a **high** result:

#### Health conditions

- Polycythemia (c)
- Lung disease (c)
- Congenital heart disease (c)
- Smoking (c)
- Living at high altitude (c)
- Dehydration (c)
- Kidney tumours (erythropoietin-producing)

REFERENCE RANGE: 0.39 - 0.49 L/L



Your results are **0.52 L/L**. This is considered **HIGH**.

## About the HEMATOCRIT test

### What is this lab test?

**Hematocrit test:** This test measures the proportion of red blood cells that make up your total blood volume. This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The hematocrit test indicates whether you have too few or too many red blood cells. High or low hematocrit values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your hematocrit test results were **high abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the hematocrit lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- You may be one of the 5% of healthy individuals who have test values outside the normal range.
- There may have been some variations in the procedure to check your test levels in the laboratory. This is rare, but it does happen on occasion.

### What conditions and medications may be associated with these test results?

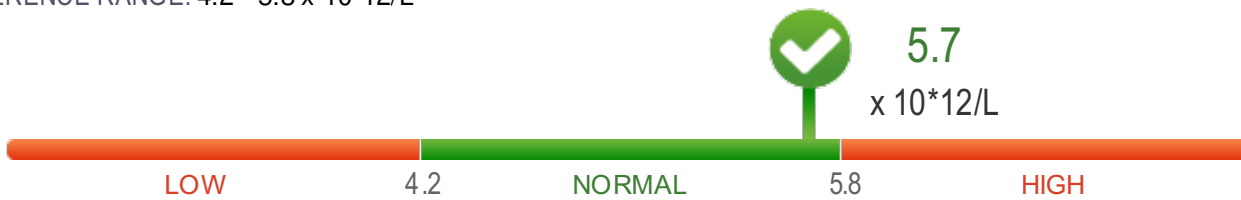
Health conditions and medications associated with **high** hematocrit levels: There can be many possible causes and effects of an abnormal lab result. The following are some known health conditions and medications associated with **high** hematocrit levels.

Health conditions and medications are indicated as possible causes (c) or effects (e) of a **high** test result where appropriate evidence exists.

Health conditions and medications associated with a **high** result:

#### Health conditions

- Severe dehydration (c)
- Polycythemia (c)
- Lung disease (c)
- Congenital heart disease (c)
- Kidney tumour (c)
- Smoking (c)
- Genetic causes (c)
- Living at high altitude (c)

REFERENCE RANGE: 4.2 - 5.8 x 10<sup>12</sup>/L

Your results are 5.7 x 10<sup>12</sup>/L. This is considered **NORMAL**.

## About the RED BLOOD CELL COUNT test

### What is this lab test?

**Red blood cell count (RBC count) test:** This test measures the number of red blood cells in circulation in the blood stream. This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. Red blood cells are produced in the bone marrow and are responsible for delivering oxygen to organs and tissues in the body. The results can be used to investigate conditions affecting red blood cells. High or low RBC count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your red blood cell count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the red blood cell count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** red blood cell count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 80 - 98 fL



Your results are 92. This is considered NORMAL.

## About the MEAN CELL VOLUME (MCV) test

### What is this lab test?

**Mean cell volume (MCV) test:** This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The mean cell volume measures the average size of the red blood cells. It is one of the measurements used to help classify and evaluate the cause of the anemia. High or low MCV values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your MCV test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

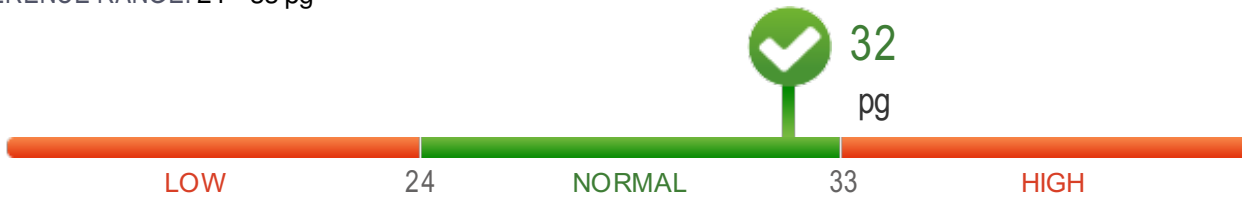
Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the MCV lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** MCV result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 24 - 33 pg



Your results are 32. This is considered NORMAL.

## About the MEAN CELL HEMOGLOBIN (MCH) test

### What is this lab test?

**Mean cell hemoglobin test:** This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The mean cell hemoglobin measures the average amount (weight) of hemoglobin in a red blood cell. It is one measurement to help assess the health of these cells. High or low MCH values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your MCH test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the MCH lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** MCH result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.



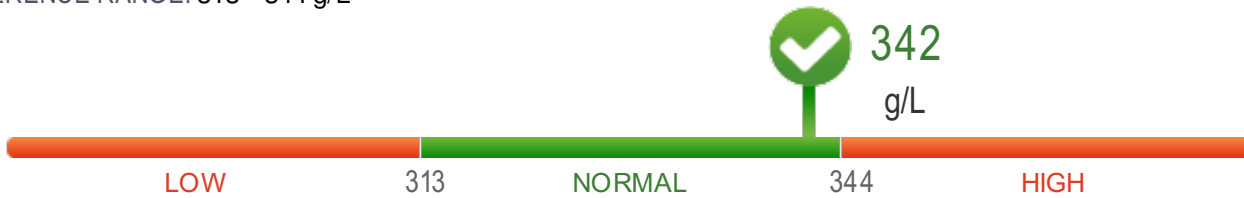
# MEAN CELL HEMOGLOBIN CONCENTRATION

TEST STATUS  
Final

REFERENCE  
313 - 344

YOUR RESULT  
342 g/L ✓ normal

REFERENCE RANGE: 313 - 344 g/L



Your results are **342**. This is considered **NORMAL**.

## About the MEAN CELL HEMOGLOBIN CONCENTRATION test

### What is this lab test?

**Mean cell hemoglobin concentration (MCHC) test:** This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The mean cell hemoglobin concentration measures the average concentration of hemoglobin in a volume of red blood cells. It is one measurement to help assess the health of these cells. High or low MCHC values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your MCHC test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the MCHC lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** MCHC result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 12.5 - 17.3 %



Your results are 15.0 %. This is considered **NORMAL**.

## About the RBC DISTRIBUTION WIDTH test

### What is this lab test?

**Red blood cell distribution width (RDW) test:** This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The red blood cell distribution width measures the variation in the size of the red blood cells. It is one measurement to help assess the health of these cells. High or low RDW values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your RDW test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

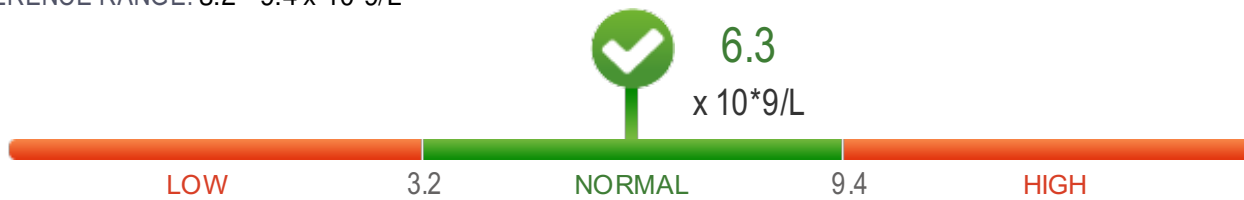
**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the RDW lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** RDW result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 3.2 - 9.4 x 10<sup>9</sup>/L

Your results are 6.3 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WHITE BLOOD CELL COUNT test

### What is this lab test?

**White blood cell count test:** This test measures the number of white blood cells (WBCs) in a blood sample. This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. The function of WBCs is to help defend the body against infections and foreign material. There are 5 types of WBCs normally found in the blood: neutrophils, lymphocytes, monocytes, eosinophils, and basophils. WBCs are produced in the bone marrow.

This test is a measure of general health and activity of the immune system and bone marrow. The WBC count is usually reported along with the WBC differential, which separates and reports the different types of WBC. High or low WBC values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your white blood cell count test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the white blood cell count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** white blood cell count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.



REFERENCE RANGE: 155 - 372 x 10<sup>9</sup>/L

Your results are 302. This is considered NORMAL.

## About the PLATELET COUNT test

### What is this lab test?

**Platelet test:** This test measures the number of platelets in your blood stream. It is a part of the complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. Platelets are produced in the bone marrow and found primarily in the blood stream. Their main role is to keep your blood vessels from leaking. If a blood vessel gets injured, platelets are activated to help form a blood clot to plug the hole until proper healing can occur. High or low platelet test values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your platelet test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

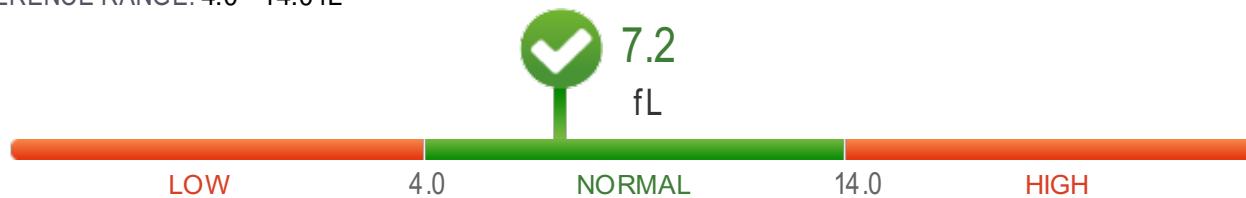
Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the platelet lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** platelet result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 4.0 - 14.0 fL



Your results are 7.2 fL. This is considered **NORMAL**.

## About the MEAN PLATELET VOLUME test

### What is this lab test?

**Mean platelet volume test:** This is one of the tests included in a complete blood count (CBC). A CBC is used as a measure of general health, but it is also used to help detect, diagnose, or monitor a number of health conditions that involve blood cells. Platelets are found primarily in the blood stream whose main role is to keep your blood vessels leak free. If a blood vessel gets injured, platelets are activated to help form a blood clot to plug the hole until proper healing can occur. The mean platelet volume test measures the average size of the platelets in the blood. It is one measurement to help assess the health of these cells.

High or low MPV values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your MPV test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

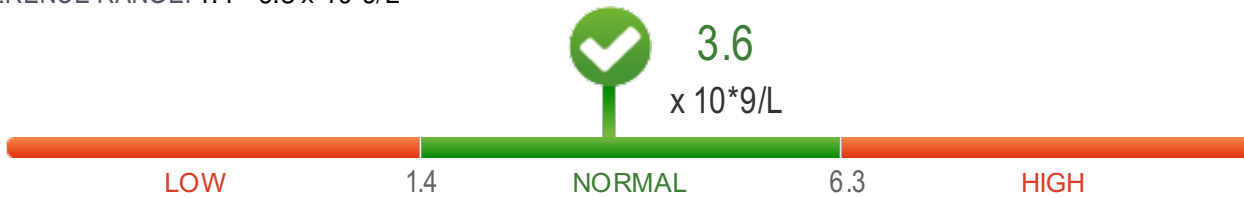
**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the MPV lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** MPV result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 1.4 - 6.3 x 10<sup>9</sup>/L

Your results are 3.6 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WBC NEUTROPHILS test

### What is this lab test?

**Absolute neutrophil count:** Neutrophils are a type of white blood cell. There are five different types of white blood cells in the body, and each has its own special function. Neutrophils are involved primarily in fighting bacterial infections. They do so by engulfing and digesting the bacteria in a process known as phagocytosis. Only mature neutrophils are normally seen in the blood stream. Immature neutrophils may also be seen in the blood stream if the neutrophils are stimulated to be produced in higher amounts by bacterial infection, trauma, or other conditions.

This test is a measure of general health, as well as activity of the immune system and bone marrow. The neutrophil count is usually part of a larger screen of your white blood cell health called the white blood cell differential. High or low neutrophil count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your absolute neutrophil count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the absolute neutrophil count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** absolute neutrophil count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already

done so.



REFERENCE RANGE: 1.0 - 2.9 x 10<sup>9</sup>/L

Your results are 2.1 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WBC LYMPHOCYTES test

### What is this lab test?

**Absolute lymphocyte count:** Lymphocytes are a type of white blood cell. There are five different types of white blood cells in the body, and each has its own special function. Lymphocytes are involved primarily in fighting acute viral infections and chronic bacterial infections. Although there are three main types of lymphocytes - B cells, T cells, and natural killer cells - this test does not differentiate between the three. This test is one measure of general health as well as activity of the immune system and bone marrow. The lymphocyte count is usually part of a larger screen of your white blood cell health called the white blood cell differential.

High or low absolute lymphocyte count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your absolute lymphocyte count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

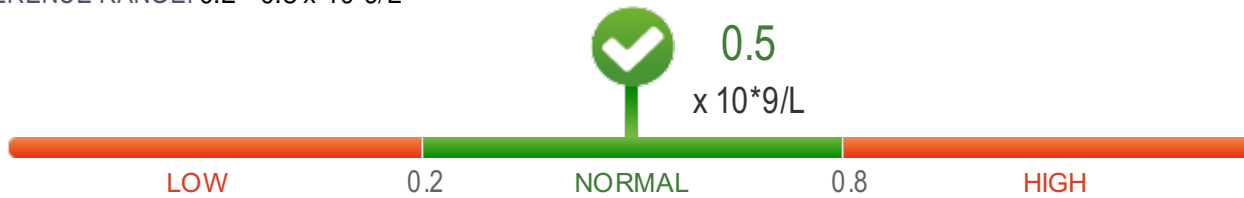
Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the absolute lymphocyte count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** absolute lymphocyte count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.



REFERENCE RANGE: 0.2 - 0.8 x 10<sup>9</sup>/L

Your results are 0.5 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WBC MONOCYTES test

### What is this lab test?

**Absolute monocyte count:** Monocytes are a type of white blood cell. There are five different types of white blood cells in the body, and each has its own special function. Monocytes are involved primarily in fighting bacterial infections. They do so by engulfing the bacteria in a process known as phagocytosis. Monocytes are usually the second line of defense against infections, after neutrophils. Additionally, monocytes produce a protein called interferon which stimulates the immune system. This test is one measure of general health as well as activity of the immune system and bone marrow. The monocyte count is usually part of a larger screen of your white blood cell health called the white blood cell differential.

High or low absolute monocyte count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your absolute monocyte count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

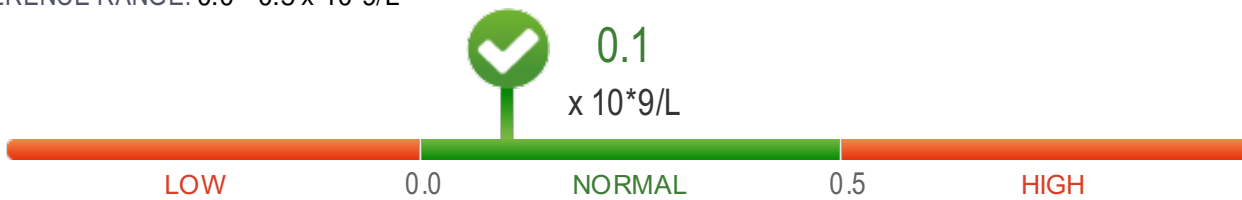
Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the absolute monocyte count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** absolute monocyte count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.



REFERENCE RANGE: 0.0 - 0.5 x 10<sup>9</sup>/L

Your results are 0.1 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WBC EOSINOPHILS test

### What is this lab test?

**Absolute eosinophil count:** Eosinophils are a type of white blood cell. There are five different types of white blood cells in the body, and each has its own special function. Eosinophils are involved in allergic reactions and do not typically respond to bacterial or viral infections, whereas some other white blood cell types do. This test is one measure of general health as well as activity of the immune system and bone marrow. The eosinophil count is usually part of a larger screen of your white blood cell health called the "white blood cell differential."

High or low absolute eosinophil count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your absolute eosinophil count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the absolute eosinophil count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** absolute eosinophil count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

REFERENCE RANGE: 0.00 - 0.09 x 10<sup>9</sup>/L

Your results are 0.06 x 10<sup>9</sup>/L. This is considered **NORMAL**.

## About the WBC BASOPHILS test

### What is this lab test?

**Absolute basophil count:** Basophils are a type of white blood cell. There are five different types of white blood cells in the body, and each has its own special function. Basophils are involved in allergic reactions and do not typically respond to bacterial or viral infections, whereas some other white blood cell types do. This test is one measure of general health as well as activity of the immune system and bone marrow. The basophil is usually part of a larger screen of your white blood cell health called the "white blood cell differential."

High or low absolute basophil count values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your absolute basophil count results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the absolute basophil count lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** absolute basophil count result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

**NORMAL**

PLATELETS APPEAR ADEQUATE


**NORMAL**

RED CELLS APPEAR NORMAL

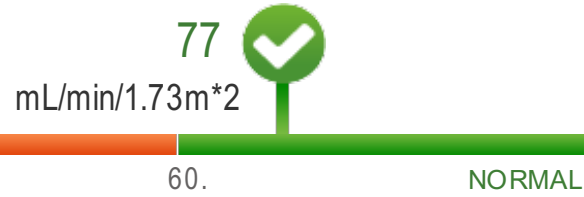


# ESTIMATED GLOMERULAR FILTRATION RATE

TEST STATUS  
Final

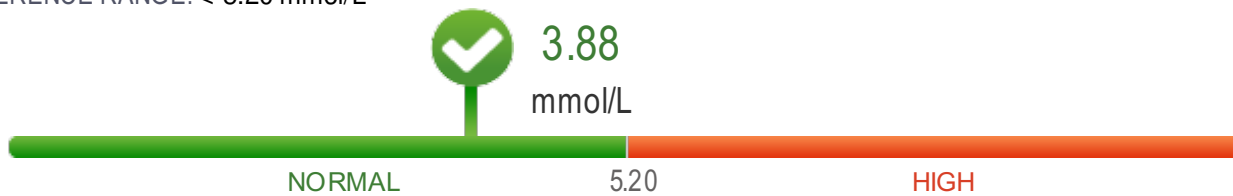
REFERENCE  
≥ 60.  
YOUR RESULT  
77 mL/min/1.73m<sup>2</sup>  normal

REFERENCE RANGE: ≥ 60. mL/min/1.73m<sup>2</sup>



Your results are 77. This is considered NORMAL.

REFERENCE RANGE: &lt; 5.20 mmol/L



Your results are 3.88 mmol/L. This is considered **NORMAL**.

## CHOLESTEROL, TOTAL

Total cholesterol and HDL-C used  
for risk assessment and to calculate non-HDL-C.

## About the CHOLESTEROL, TOTAL test

### What is this lab test?

**Total cholesterol (TC) test:** The total cholesterol (TC) test measures all cholesterol in the blood, including high-density lipoprotein (HDL), low-density lipoprotein (LDL), and very low-density lipoprotein (VLDL). The majority of cholesterol found in your body is made by the body, and a lesser amount is obtained through dietary sources. Although cholesterol is an essential component of every cell in your body, too much cholesterol may increase your risk for heart disease. Your TC blood level is used in combination with other tests and risk factors to calculate your Framingham Risk Score, which is an estimate of your 10-year risk for heart disease. The other risk factors include smoking status, age, blood pressure, family history of heart disease, history of heart disease, diabetes mellitus, and lipid values. Your physician will use all of this information with your LDL cholesterol levels to decide what treatment is necessary to reduce your risk for heart disease.

The total cholesterol test can be ordered as part of a routine physical examination, or as part of a panel routinely ordered by your doctor. It is also ordered by doctors as a part of the diagnostic process. The test can also be used by your health care professional to monitor the response of an existing condition that you have to a treatment.

### What can my result mean to me?

Your total cholesterol results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. Total cholesterol lab tests are typically ordered for one or more of 5 different reasons, depending on your particular health circumstances:

#### **Routine health screening** to identify health problems before symptoms occur.

Your doctor may order certain lab tests as part of routine health screening to identify changes in your health before any symptoms occur. Early identification of health conditions with routine screening provides the best chance of addressing underlying issues before serious health problems occur. Your doctor's choice of lab tests for routine health screening depends on many factors, including your age, gender, family history, current health

and living/working environment.

A normal total cholesterol test result gives an indication to your doctor that your body functions associated with total cholesterol levels are healthy, but the result may have to be looked at in the context of other test results and your general health.

**To help diagnose or rule out a health condition suspected by your health care professional based on your current health status.**

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with total cholesterol levels.

A normal total cholesterol test result gives an indication to your doctor that health conditions associated with total cholesterol levels may not be affecting you. However, the result may have to be looked at in the context of other test results and your general health.

**To help plan for a new treatment of a diagnosed or suspected health condition.**

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **normal** total cholesterol test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

**To help monitor a current treatment for potential side effects and therapeutic levels.**

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **normal** result could mean:

- That a treatment for a health condition may not be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

**To track the progression of a health condition.**

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your total cholesterol test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: &lt; 1.70 mmol/L

1.85  
mmol/L

Your results are **1.85** mmol/L. This is considered **HIGH**.

## TRIGLYCERIDES

If nonfasting,  
triglycerides <2.00 mmol/L desired.

## About the TRIGLYCERIDES test

### What is this lab test?

**Triglyceride (TG) test:** Your triglycerides are usually ordered with total cholesterol, LDL-C, and HDL-C as part of a lipid profile to assess your risk for heart disease. The TG value is an important measure in the calculation of LDL cholesterol and is usually part of a standard lipid profile. High levels of TG may increase the risk of heart disease. TGs are a form of fat in the bloodstream. They can be taken in from certain high-fat foods and can also be synthesized by the liver.

High TG values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your triglyceride results were **high abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. Triglyceride lab tests are typically ordered for one or more of 4 different reasons, depending on your particular health circumstances:

**To help diagnose or rule out a health condition suspected by your health care professional based on your current health status.**

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with TG levels.

A high triglyceride test reading can be associated with:

- Heart disease
- Atherosclerosis
- Pancreatitis

- Hypothyroidism

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions or worry about any lab test result in isolation - other tests will likely have to be done for a proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

**To help plan for a new treatment of a diagnosed or suspected health condition.**

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **high** TG test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

**To help monitor a current treatment for potential side effects and therapeutic levels.**

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **high abnormal** result could mean:

- That a treatment for a health condition may be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

**To track the progression of a health condition.**

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- There is a chance that you may not have closely followed the lab test preparatory instructions. This can affect your lab results.
- There may have been some variations in the procedure to check your triglyceride test levels in the laboratory. This is rare, but it does happen on occasion.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your triglyceride test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

## What conditions and medications may be associated with these test results?

Conditions, diseases and medications associated with high triglyceride levels: There are many possible causes of a high triglyceride lab result. The following are some known conditions and medications that may be a cause (c) or effect (e) of high triglyceride levels.

**Health conditions**

- Hyperlipidemias (c)

- High carbohydrate diet (c)
- Familial hypertriglyceridemia (c)
- Heart disease (e)
- Atherosclerosis (e)
- Pancreatitis (c)
- Hypothyroidism (c)
- Heart attack (e)
- High blood pressure (e)
- Diabetes (c)
- Xanthoma (e)
- Obesity (c)

Medications (including supplements and foods)

- Corticosteroids (c)
- Protease inhibitors (c)
- Oral contraceptives (c)
- Estrogen (c)

REFERENCE RANGE: ≥ 1.00 mmol/L

  
0.84  
mmol/L

Your results are 0.84 mmol/L. This is considered **LOW**.

## HDL CHOLESTEROL

HDL-C <1.00 mmol/L indicates risk for metabolic syndrome.

## About the HDL CHOLESTEROL test

### What is this lab test?

**High-density lipoprotein (HDL) cholesterol test:** This test measures high-density lipoprotein cholesterol (HDL-C) levels in the blood. HDL-C is usually ordered with total cholesterol, LDL-C, and triglycerides as part of a lipid profile to predict risk of developing heart disease. HDL is also known as "good" cholesterol, and high levels of this cholesterol may actually lower your risk of heart disease. Your HDL-C blood level is used in combination with other tests and risk factors to calculate your Framingham Risk Score, which is an estimate of your 10-year risk for heart disease. The other risk factors include smoking status, age, blood pressure, family history of heart disease, history of heart disease, diabetes mellitus, and lipid values. Your physician will use this information with your LDL cholesterol levels to decide what treatment is necessary to reduce your risk for heart disease.

High or low HDL-C values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your HDL-C results were **low abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. HDL-C lab tests are typically ordered for one or more of 5 different reasons, depending on your particular health circumstances:

#### **Routine health screening to identify health problems before symptoms occur.**

Your doctor may order certain lab tests as part of routine health screening to identify changes in your health before any symptoms occur. Early identification of health conditions with routine screening provides the best chance of addressing underlying issues before serious health problems occur. Your doctor's choice of lab tests for routine health screening depends on many factors, including your age, gender, family history, current health and living/working environment.

A low HDL-C test reading can be associated with:

- Coronary artery disease

- Type 2 diabetes

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions, or worry about any abnormal lab test result in isolation - other tests will likely have to be performed for proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

**To help diagnose or rule out a health condition suspected by your health care professional based on your current health status.**

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with HDL-C levels.

A low HDL-C test reading can be associated with:

- Coronary artery disease
- Type 2 diabetes mellitus
- Familial hypoalphalipoproteinemia (e.g., Tangier disease)

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions or worry about any lab test result in isolation - other tests will likely have to be done for a proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

**To help plan for a new treatment of a diagnosed or suspected health condition.**

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **low** HDL-C test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

**To help monitor a current treatment for potential side effects and therapeutic levels.**

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **low abnormal** result could mean:

- That a treatment for a health condition may be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

**To track the progression of a health condition.**

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- There is a chance that you may not have closely followed the lab test preparatory instructions. This can affect your lab results.
- There may have been some variations in the procedure to check your HDL-C test levels in the laboratory. This is rare, but it does happen on occasion.



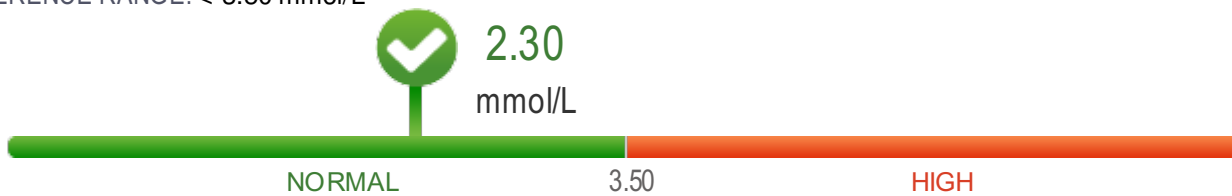
Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your HDL-C test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

### What conditions and medications may be associated with these test results?

Conditions, diseases, and medications associated with low HDL-C levels: There are many possible causes of a low HDL-C lab result. The following are some known conditions that may be a cause (c) or effect (e) of low HDL-C levels.

- Heart disease (e)
- Diabetes (c)
- Obesity (c)
- High blood pressure (e)
- Smoking (c)
- Lack of physical activity (c)
- Poor diet (c)
- Rare genetic disorders (e.g., familial hypoalphalipoproteinemia) (c)

REFERENCE RANGE: &lt; 3.50 mmol/L



Your results are 2.30 mmol/L. This is considered **NORMAL**.

## LDL CHOLESTEROL

Triglycerides exceed 1.50 mmol/L. For dyslipidemia assessment, refer to apoB or non-HDL-C

LDL-C was calculated using the NIH equation.

For additional LDL-C and non-HDL-C thresholds based on risk stratification, refer to 2021 CCS Guidelines.

## About the LDL CHOLESTEROL test

### What is this lab test?

**Low-density lipoprotein cholesterol (LDL-C) test:** This test measures low-density lipoprotein cholesterol (LDL-C) levels in the blood. LDL-C is usually ordered with total cholesterol, HDL-C, and triglycerides as part of a lipid profile to predict risk of developing heart disease. The LDL-C value is a calculation of the amount of low-density lipoproteins in the blood based on the results of a standard lipid profile. The Friedewald equation is most commonly used to estimate LDL-C, although it becomes less accurate when triglyceride levels are increased. LDL is known as "bad" cholesterol because high levels of this may increase the risk of heart disease. Your LDL-C level is used in combination with other tests and risk factors to calculate your Framingham Risk Score, which is an estimate of your 10-year risk for heart disease. The other risk factors include smoking status, age, blood pressure, family history of heart disease, history of heart disease, diabetes mellitus, and lipid values. Your physician will use this information with your LDL cholesterol levels to decide what treatment is necessary to reduce your risk for heart disease.

High or low LDL-C values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your LDL-C results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. LDL-C lab tests are typically ordered for one or more of 5 different reasons, depending on your particular health circumstances:

**Routine health screening to identify health problems before symptoms occur.**

Your doctor may order certain lab tests as part of routine health screening to identify changes in your health before any symptoms occur. Early

identification of health conditions with routine screening provides the best chance of addressing underlying issues before serious health problems occur. Your doctor's choice of lab tests for routine health screening depends on many factors, including your age, gender, family history, current health and living/working environment.

A normal LDL-C test result gives an indication to your doctor that your body functions associated with LDL-C levels are healthy, but the result may have to be looked at in the context of other test results and your general health.

**To help diagnose or rule out a health condition suspected by your health care professional based on your current health status.**

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with LDL-C levels.

A normal LDL-C test result gives an indication to your doctor that health conditions associated with LDL-C levels may not be affecting you. However, the result may have to be looked at in the context of other test results and your general health.

**To help plan for a new treatment of a diagnosed or suspected health condition.**

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **normal** LDL-C test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

**To help monitor a current treatment for potential side effects and therapeutic levels.**

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **normal** result could mean:

- That a treatment for a health condition may not be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

**To track the progression of a health condition.**

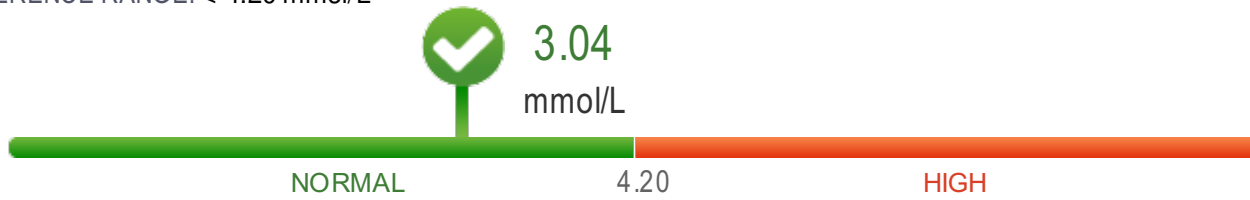
Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your LDL-C test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

NON-HDL-  
CHOLESTEROL(CALC)TEST STATUS  
FinalREFERENCE  
< 4.20YOUR RESULT  
3.04 mmol/L ✓ normal

REFERENCE RANGE: &lt; 4.20 mmol/L



Your results are 3.04 mmol/L. This is considered **NORMAL**.



Your results are 4.6. This has not been interpreted.

REFERENCE RANGE: 3.7 - 5.4 mmol/L



Your results are 4.7 mmol/L. This is considered **NORMAL**.

## About the POTASSIUM test

### What is this lab test?

**Serum potassium test:** This test measures the amount of potassium in your blood stream. Potassium is a very important electrolyte used in many processes of the body such as nerve functioning and muscle contractions. It is also one of many components necessary to maintain proper fluid balance and pH in the body. High or low potassium test values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your serum potassium test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

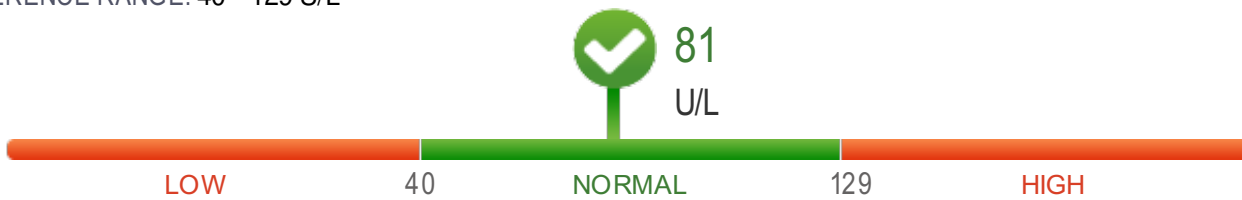
Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the serum potassium lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** serum potassium result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 40 - 129 U/L



Your results are **81**. This is considered **NORMAL**.

## About the ALKALINE PHOSPHATASE (ALP) test

### What is this lab test?

**Total alkaline phosphatase test:** This test measures the total activity of alkaline phosphatase, which is an enzyme found in the bones, liver, and intestine, and in the placenta of pregnant women. Total activity of alkaline phosphates increases during bone growth, liver disease, and pregnancy. However, the presence of abnormal levels of total alkaline phosphatase in your blood can be caused by many different things, some related to your health and some not. Normally children and adolescents have high levels during growth spurts.

This test is usually ordered to diagnose and monitor bone or liver conditions. Abnormal findings in the total alkaline phosphatase levels are usually followed up by another test called alkaline phosphatase isoenzyme. This follow-up test helps distinguish between the different forms (isoenzymes) of ALP produced by different types of tissues in the body.

### What can my result mean to me?

Your total alkaline phosphatase test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the total alkaline phosphatase lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** total alkaline phosphatase result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.

REFERENCE RANGE: &lt; 46 U/L

✓ 37  
U/L

NORMAL

46

HIGH

Your results are 37. This is considered **NORMAL**.

## About the ALANINE AMINOTRANSFERASE (ALT) test

### What is this lab test?

**Alanine aminotransferase (ALT):** This test measures the activity of alanine aminotransferase (ALT) in your blood stream. ALT is a protein enzyme primarily made by the liver. Because of this, increased levels of ALT indicate liver problems. This test is typically ordered to help diagnose or track the progression of liver disease/damage. It may be ordered along with other liver function tests such as the aspartate aminotransferase (AST) test. Increased ALT levels can be caused by many reasons, some related to your health, some not. Health care professionals may also look at how high your ALT levels are because small, moderate, or large increases can indicate different liver problems.

### What can my result mean to me?

Your ALT test results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Lab tests are typically ordered for one or more of 5 different reasons:

**For routine health screening** to identify health problems before symptoms occur.

**To help diagnose or rule out a condition/disease** suspected by your health care professional based on your current health status and family history.

**To help plan for a treatment** of a condition/disease you have been diagnosed with or suspected of having.

**To help monitor a current treatment** for potential side effects and therapeutic levels.

**To track the progression of a disease/condition** you have been diagnosed with having.

Your lab test result could have different meanings depending on why your health care professional ordered it. Additionally, the result of the ALT lab test is considered non-specific. This means there are too many factors that can affect the results, some health related and some not.

However, a **normal** ALT result gives an indication to your doctor that health conditions associated with the lab test may not be affecting you. The result may have to be looked at in the context of other test results and your general health.

Please do not jump to conclusions or worry about any lab test result in isolation. No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your test result.



REFERENCE RANGE: &lt; 6.0 %

  
5.5  
%

Your results are 5.5 %. This is considered **NORMAL**.

#### HEMOGLOBIN A1C (HB A1C)

NON-DIABETIC: < 6.0 Percent

PREDIABETES: 6.0 - 6.4 percent

DIABETIC: > 6.4 Percent

OPTIMAL CONTROL: < 7.0 Percent

SUB-OPTIMAL CONTROL: 7.0 - 8.4 Percent

INADEQUATE CONTROL: > 8.4 Percent

## About the HEMOGLOBIN A1C (HB A1C) test

### What is this lab test?

**Glycated hemoglobin (A1C) test:** Diabetes is a chronic disease where the body is unable to either make or respond to insulin. Insulin functions as a gatekeeper of glucose by allowing the body's cells to take up glucose from the blood. If insulin is absent or is not recognized, this leads to uncontrolled high blood glucose, which, if not treated, causes many medical complications. Regular monitoring of blood glucose is an important step in managing and maintaining normal levels of glucose in the blood. Another test used to assess blood glucose control is the hemoglobin A1C test. This test measures how much glycated hemoglobin (also called hemoglobin A1C) is in the blood.

Hemoglobin A1C is formed when blood glucose attaches to the hemoglobin of red blood cells. As blood glucose levels rise, so does the frequency of glucose attachment and from that the levels of hemoglobin A1C. Since red blood cells live for about 3 months, the hemoglobin A1C level indicates how well the blood glucose has been controlled over the last 3 months.

Hemoglobin A1C should be measured several times a year if you have diabetes. However, if your blood glucose is high or your diabetes medication regimen is changed, your doctor may want to measure the hemoglobin A1C more frequently (e.g., every 3 months) until your blood glucose returns to an acceptable range.

Measurement of hemoglobin A1C is an accurate way to monitor how well your diabetes treatment plan is working. If your hemoglobin A1C is high, changes to your medication or lifestyle (exercise or diet) may be required.

The hemoglobin A1C test may also be used to screen for and diagnose diabetes.

## What can my result mean to me?

Your hemoglobin A1C results were **normal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. Hemoglobin A1C lab tests are typically ordered for one or more of 5 different reasons, depending on your particular health circumstances:

### **Routine health screening** to identify health problems before symptoms occur.

Your doctor may order certain lab tests as part of routine health screening to identify changes in your health before any symptoms occur. Early identification of health conditions with routine screening provides the best chance of addressing underlying issues before serious health problems occur. Your doctor's choice of lab tests for routine health screening depends on many factors, including your age, gender, family history, current health and living/working environment.

A normal hemoglobin A1C test result gives an indication to your doctor that your body functions associated with hemoglobin A1C levels are healthy, but the result may have to be looked at in the context of other test results and your general health.

### **To help diagnose or rule out a health condition** suspected by your health care professional based on your current health status.

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with hemoglobin A1C levels.

A normal hemoglobin A1C test result gives an indication to your doctor that health conditions associated with hemoglobin A1C levels may not be affecting you. However, the result may have to be looked at in the context of other test results and your general health.

### **To help plan for a new treatment** of a diagnosed or suspected health condition.

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **normal** hemoglobin A1C test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

### **To help monitor a current treatment** for potential side effects and therapeutic levels.

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **normal** result could mean:

- That a treatment for a health condition may not be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

### **To track the progression of a health condition.**

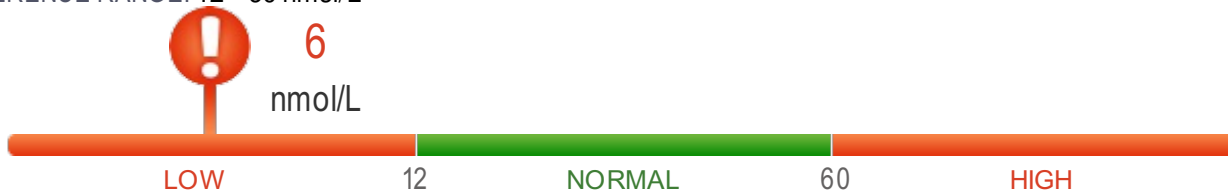
Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your hemoglobin A1C test result. If your health care professional feels

there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

REFERENCE RANGE: 12 - 60 nmol/L



Your results are **6**. This is considered **LOW**.

SEX HORMONE BINDING GLOBULIN

REPEATED

## About the SEX HORMONE BINDING GLOBULIN test

### What is this lab test?

**Sex-hormone-binding globulin test:** This test measures the amount of sex-hormone-binding globulin (SHBG) in your blood stream. Most of the testosterone in the blood stream is bound to the proteins SHBG (60%) and albumin (38%). Only a small amount is in the unbound (free) biologically active form.

Testosterone stimulates the development of male characteristics. It is present in males and females at different levels, depending on their stage of sexual maturity. In males, the majority of testosterone is produced by the testicles. In females, testosterone is produced by fat tissue, the adrenal gland, and the ovaries. In males, testosterone is used for the development of male sexual characteristics, the production of sperm, and sex drive. The role of testosterone in females is less clear, but it is known that high testosterone levels in women can cause masculine features.

This test is typically ordered to diagnose late puberty and ambiguous sexual traits in males, masculine features in females, and infertility in males when total testosterone test results are not clear. This test measures the total amount of sex-hormone-binding globulin (SHBG) manufactured by the liver. Low amounts of SHBG can mean more biologically active free testosterone in the blood stream. High amounts of SHBG can mean less biologically active free testosterone in the blood stream. High or low SHBG test values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your SHBG results were **low abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. SHBG lab tests are typically ordered for one or more of 4 different reasons, depending on your particular health circumstances:

**To help diagnose or rule out a health condition** suspected by your health care professional based on your current health status.

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some

weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with SHBG levels.

A low SHBG test reading can be associated with:

- Obesity
- Polycystic ovarian syndrome
- Hypothyroidism
- Acne
- Abnormal body hair growth

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions or worry about any lab test result in isolation - other tests will likely have to be done for a proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

#### To help plan for a new treatment of a diagnosed or suspected health condition.

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **low** SHBG test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

#### To help monitor a current treatment for potential side effects and therapeutic levels.

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **low abnormal** result could mean:

- That a treatment for a health condition may be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

#### To track the progression of a health condition.

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- You may be one of the healthy individuals who have SHBG test values in the low range.
- There may have been some variations in the procedure to check your SHBG test levels in the laboratory. This is rare, but it does happen on occasion.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your SHBG test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

### What conditions and medications may be associated with these test results?

Conditions, diseases, and medications associated with low SHBG levels: There are many possible causes of a low sex-hormone-binding globulin lab result. The following are some known conditions and medications that may be a cause (c) or effect (e) of low SHBG levels.

#### Health conditions

- Obesity (c)
- Polycystic ovarian syndrome (c)
- Hypothyroidism (c)

#### Symptoms and signs associated with low SHBG levels:

- Acne in males (e)
- Early puberty in males (e)
- Masculine physical traits in females (e)

#### Medications (including supplements and foods)

- Androgen use (c)

REFERENCE RANGE: 7.6 - 31.4 nmol/L



Your results are 37.0 nmol/L. This is considered **HIGH**.

## About the TESTOSTERONE, TOTAL test

### What is this lab test?

**Total testosterone test:** This test measures the amount of total testosterone, bound and free, in your blood stream. Testosterone is present in both males and females at different levels, depending on their stage of sexual maturity. In males, the majority of testosterone is produced by the testicles and a minority by the adrenal glands. In females, testosterone is produced by the adrenal glands and the ovaries. In males, testosterone stimulates the development of male sexual characteristics, the production of sperm, and sex drive. The role of testosterone in females is less clear, but it is known that high testosterone levels in women can cause masculine features.

Most of the testosterone in the blood stream is bound to the proteins sex-hormone-binding globulin (SHBG) and albumin. Only a small amount (1-4%) is in the unbound (free) biologically active form. This test measures the total amount of testosterone, including free and bound forms.

This test is typically ordered to help evaluate early or late puberty, loss of sex drive and infertility in males, and ambiguous sexual traits, masculine features, and infertility in females. High or low total testosterone test values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your total testosterone test results were **high abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. Total testosterone lab tests are typically ordered for one or more of 4 different reasons, depending on your particular health circumstances:

**To help diagnose or rule out a health condition suspected by your health care professional based on your current health status.**

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with total testosterone levels.

A high total testosterone test reading can be associated with:

- Testicular tumour
- Adrenal tumour
- Hyperthyroidism
- Congenital adrenal hyperplasia

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions or worry about any lab test result in isolation - other tests will likely have to be done for a proper diagnosis. Always remember: your result could be due to

non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

#### To help plan for a new treatment of a diagnosed or suspected health condition.

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **high** total testosterone test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

#### To help monitor a current treatment for potential side effects and therapeutic levels.

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **high abnormal** result could mean:

- That a treatment for a health condition may be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

#### To track the progression of a health condition.

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- You may be one of the healthy individuals who have serum total testosterone test values in the high range.
- There is a chance that you may not have closely followed the lab test preparatory instructions. This can affect your lab results.
- There may have been some variations in the procedure to check your serum total testosterone test levels in the laboratory. This is rare, but it does happen on occasion.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your total testosterone test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

## What conditions and medications may be associated with these test results?

Conditions, diseases, and medications associated with high serum testosterone levels: There are many possible causes of a high serum testosterone lab result. The following are some known conditions and medications that may be a cause (c) or effect (e) of high serum testosterone levels.

Health conditions

- Testicular tumour (c)
- Adrenal tumour (c)



- Virilizing ovarian tumor (c)
- Hyperthyroidism (c)
- Congenital adrenal hyperplasia (c)
- Polycystic ovarian syndrome (c)
- Testosterone resistance syndromes (c)

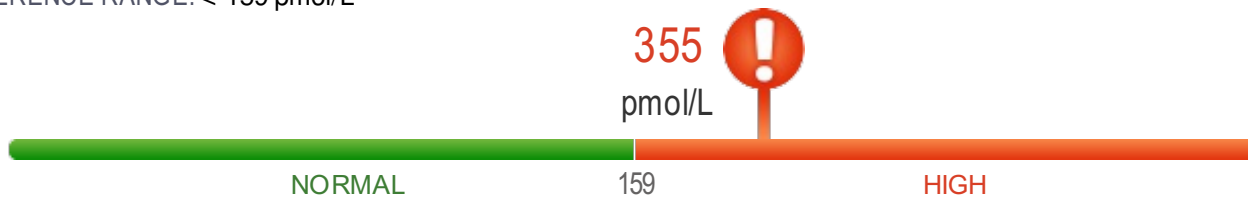
Some symptoms associated with elevated serum total testosterone include:

- Early puberty (males) (e)
- Masculine physical traits in females (e)
- Male-pattern body hair growth (hirsutism) in females (e)
- Acne (females) (e)
- Irregular or absent menstrual cycles (females) (e)

Medications (including supplements and foods)

- Estrogen therapy (c)
- Anticonvulsants (c)
- Barbiturates (c)
- Clomiphene (c)

REFERENCE RANGE: &lt; 159 pmol/L



Your results are **355**. This is considered **HIGH**.

## About the ESTRADIOL test

### What is this lab test?

**Estradiol test:** This test measures the amount of estradiol in your blood stream. There are 3 major forms of estrogens: estrone (E1), estradiol (E2), and estriol (E3). Estradiol is the main and most potent estrogen. Its levels are typically used to evaluate menstruation, fertility, menopause, sexual stage of maturity, gynecomastia, and feminization in males. It is also a tumour marker for some ovarian tumours. Estrone is the major circulating estrogen after menopause. Estriol is the major estrogen during pregnancy.

High or low estradiol test values can be caused by many different things, some related to your health and some not.

### What can my result mean to me?

Your estradiol test results were **high abnormal**. Only your health care professional knows why this test was ordered, how to interpret it, and what it means to you. Your lab test result could have different meanings depending on why your health care professional ordered it. Estradiol lab tests are typically ordered for one or more of 5 different reasons, depending on your particular health circumstances:

#### **Routine health screening** to identify health problems before symptoms occur.

Your doctor may order certain lab tests as part of routine health screening to identify changes in your health before any symptoms occur. Early identification of health conditions with routine screening provides the best chance of addressing underlying issues before serious health problems occur. Your doctor's choice of lab tests for routine health screening depends on many factors, including your age, gender, family history, current health and living/working environment.

A high estradiol test reading can be associated with:

- Early puberty
- Gynecomastia

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions, or worry about any abnormal lab test result in isolation - other tests will likely have to be performed for proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

#### **To help diagnose or rule out a health condition** suspected by your health care professional based on your current health status.

Any current unexplained symptoms you may be experiencing could have prompted your health care professional to order this test. Like a detective, your health care professional is looking for clues and evidence to help solve a case. Not all lab tests are equal; some provide strong evidence, some weaker evidence. The result of this test can help diagnose or rule out a health condition your doctor suspects could be associated with estradiol levels.

A high estradiol test reading can be associated with:

- Ovarian tumours
- Adrenal tumours
- Hyperthyroidism
- Liver cirrhosis

A more complete list of associated health conditions and medications can be found near the end of this report. Please do not jump to conclusions or worry about any lab test result in isolation - other tests will likely have to be done for a proper diagnosis. Always remember: your result could be due to non-health-related reasons, less significant or insignificant health reasons, or something you are eating or taking.

#### To help plan for a new treatment of a diagnosed or suspected health condition.

Your health care professional may have ordered this test because you have been diagnosed or strongly suspected of having a health condition that requires treatment. Sometimes providing the appropriate treatment plan requires prior knowledge of lab test results. This can include lab tests that are indicators of the health condition being treated. It can also include lab tests that are indicators of the health of other body functions when the treatment option is known to have potentially harmful side effects on those body functions.

A **high** estradiol test result can tell your health care professional what treatment plan may be appropriate. If your doctor is using this test result to plan for a treatment, he or she will discuss the treatment plan with you.

#### To help monitor a current treatment for potential side effects and therapeutic levels.

Your health care professional may have ordered this test because you are currently undergoing treatment for a health condition. Some health condition treatments require monitoring using lab test results. These can include lab tests that monitor the therapeutic level of the treatment in your body. They can also include lab tests that are indicators of the health of other body functions. This helps monitor potentially harmful side effects on body functions known to be affected by a particular treatment.

This test is not used to monitor therapeutic levels of a treatment. However, it could be used to monitor potential harmful side effects of a treatment. If your health care professional ordered this test to monitor the side effects of a treatment, your **high abnormal** result could mean:

- That a treatment for a health condition may be affecting normal body functions associated with this test.

However, side effects of some treatments can affect many different normal body functions. This means your result may have to be looked at in the context of other test results and your general health to determine if a treatment is causing harmful side effects. Based on their overall assessment, your health care professional may or may not change your treatment. This decision depends on weighing the risks against the benefits.

#### To track the progression of a health condition.

Your health care professional may have ordered this test because you have been diagnosed with a health condition and they want to track the progress of that health condition over time. The progression of some health conditions can be tracked using lab tests whose results are associated with the severity of a health condition.

The test result could mean your health condition is getting better, getting worse, or staying the same. Your current results have to be looked at in the context of your previous results, your health care professional's set targets, and results on other tests.

Your health care professional will also consider non-health-related reasons that could explain your results.

Potential non-health-related reasons for your result:

- You may be one of the 2.5% of healthy individuals who have estradiol test values in the high range. The closer your abnormal reading is to the normal range, the more likely your reading could be normal for you.
- There is a chance that you may not have closely followed the lab test preparatory instructions. This can affect your lab results.
- There may have been some variations in the procedure to check your estradiol test levels in the laboratory. This is rare, but it does happen on occasion.

Always remember: No lab test result is interpreted on its own. Your health care professional will likely need to consider the results of other tests, any symptoms you have, and your medical history to interpret the significance of your estradiol test result. If your health care professional feels there is anything urgent required, he or she will likely contact you shortly, if he or she has not already done so.

### What conditions and medications may be associated with these test results?

Conditions, diseases, and medications associated with high estradiol levels: There are many possible causes of a high estradiol lab result. The following are some known conditions and medications that may be a cause (c) or effect (e) high estradiol levels.

#### Health conditions

- Ovarian tumours (c)
- Adrenal tumours (c)
- Hyperthyroidism (c)
- Liver cirrhosis (c)

#### Medications (including supplements and foods)

- Corticosteroids (c)
- Tetracycline (c)
- Estrogen-containing drugs (e.g., estrogen therapy) (c)



## YOUR RESULTS ARE PENDING

Dynacare Plus cannot display the result of this test, as it has not yet been released by the lab. You will receive an inbox message and an email letting you know when your results are available.

## About the TESTOSTERONE, FREE test

## What is this lab test?

**Free testosterone test:** This test measures the amount of free testosterone in your blood stream. Most of the testosterone in the blood stream is bound to proteins, including sex-hormone-binding globulin (SHBG; 60%) and albumin (38%). Only a small amount (1-4%) is in the unbound (free) biologically active form. Testosterone is present in both males and females at different levels, depending on their stage of sexual maturity. In males, testosterone is primarily produced in the testicles and a small portion in the adrenal glands. In females, testosterone is produced by the adrenal gland and the ovaries. In males, testosterone stimulates the development of male sexual characteristics, the production of sperm, and sex drive. The role of testosterone in females is less clear, but it is known that high testosterone levels in women can cause masculine features.

This test is typically ordered to diagnose delayed puberty and ambiguous sexual traits in males, masculine features in females, and infertility in males. High or low free testosterone test values can be caused by many different things, some related to your health and some not.

## What conditions and medications may be associated with these test results?

Conditions, diseases, and medications associated with high serum testosterone levels: There are many possible causes of a high serum testosterone lab result. The following are some known conditions and medications that may be a cause (c) or effect (e) of high serum testosterone levels.

## Health conditions

- Testicular tumour (c)
- Adrenal tumour (c)
- Hyperthyroidism (c)
- Congenital adrenal hyperplasia (c)
- Polycystic ovarian syndrome (c)
- Encephalitis (c)
- Testosterone resistance syndromes (c)

Some symptoms associated with elevated serum total testosterone include:

- Early puberty (males) (e)
- Masculine physical traits in females (e)
- Male-pattern body hair growth (hirsutism) in females (e)
- Acne (females) (e)
- Irregular or absent menstrual cycles (females) (e)

## Medications (including supplements and foods)

- Anabolic steroids (c)
- Estrogen therapy (c)

- Anticonvulsants (c)
- Barbiturates (c)
- Clomiphene (c)



## YOUR RESULTS ARE PENDING

Dynacare Plus cannot display the result of this test, as it has not yet been released by the lab. You will receive an inbox message and an email letting you know when your results are available.

# WHAT'S NEXT?

Visit [DynacarePlus.com](https://DynacarePlus.com) to view your lab results and explore our library of health information.