

# Ulta Lab Tests

## Legend

### Result Value Colors

Normal    Result is within the clinical reference range

### Result Value Labels

L    Below Low Normal

## — Cardiovascular Health

The circulatory system, also known as the cardiovascular system (CVS), is a vast network of organs and vessels that are responsible for the flow of blood, nutrients, oxygen, other gases, and hormones to and from cells. Without the circulatory system, the body would not be able to fight disease or maintain a stable internal environment like a proper temperature and pH, referred to as homeostasis. The cardiovascular system is made up of three independent systems that work together: the heart (cardiovascular), lungs (pulmonary) and arteries, veins, coronary and portal vessels (systemic).

## Cholesterol & Triglycerides

<b>+ CHOLESTERO...</b>				
(mg/dL)				
207 H	128	124	127	
Mar 2022	Aug 2022	Oct 2022	Jan 2023	Range: <200
<b>+ TRIGLYCERIDES</b>				
(mg/dL)				
56	46	47	39	
Mar 2022	Aug 2022	Oct 2022	Jan 2023	Range: <150
<b>+ CHOL/HDLC R...</b>				
((calc))				
3.3	1.8	1.8	1.8	
Mar 2022	Aug 2022	Oct 2022	Jan 2023	Range: <5.0
<b>+ LDL/HDL RATIO</b>				
((calc))				
2.0	0.6	0.6	0.7	
Mar 2022	Aug 2022	Oct 2022	Jan 2023	Range: See Comments
<b>+ NON HDL CHO...</b>				
(mg/dL (calc))				
144 H	55	54	58	
Mar 2022	Aug 2022	Oct 2022	Jan 2023	Range: <130

### HDL Particles

High density lipoprotein (HDL) particles are often referred to as good

cholesterol, because they are associated with a decreased risk of developing cardiovascular disease.

**+** HDL CHOLEST...  
(mg/dL)

63      73      70      69

Mar 2022   Aug 2022   Oct 2022   Jan 2023   Range: > OR = 40

### LDL Particles

Low-density lipoprotein particle (LDL-P) testing evaluates LDL particles according to their number, size, density, and/or electrical charge. Low-density lipoproteins (LDL) are particles that transport lipids throughout the body. Each particle contains a combination of protein, cholesterol, triglyceride, and phospholipid molecules. Their composition changes as they circulate in the blood. Some molecules are removed and others are added, resulting in lipoprotein particles whose properties vary from large and fluffy to small and dense. LDL particle testing determines the relative amounts of particles of differing properties. Traditional lipid testing measures the amount of LDL cholesterol (LDL-C) present in the blood, but it does not evaluate the number of particles of LDL (LDL-P). Some studies have shown that increased numbers of small dense LDL particles are more likely to cause atherosclerosis than fewer light, fluffy LDL particles. An increased number of small, dense LDL could be one of the reasons that some people have heart attacks even though their total and LDL cholesterol concentrations are not particularly high."

**+** APOLIPOPROT...  
(mg/dL)

99 H	46	42	47
Mar 2022	Aug 2022	Oct 2022	Jan 2023
Range: See Comments			
<b>+</b> LDL-CHOLEST...			
(mg/dL (calc))			
129 H	42	41	47
Mar 2022	Aug 2022	Oct 2022	Jan 2023
Range: See Comments			

### Inflammation

<b>+</b> HS CRP			
(mg/L)			
<0.3	<0.3	<0.3	<0.3
Mar 2022	Aug 2022	Oct 2022	Jan 2023
Range: See Comments			

### - Metabolic & Endocrine Health

The endocrine system is the collection of glands, each of which secretes different types of hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, sleep and mood, among other things.

The endocrine system is made of eight major glands, which are groups of cells that produce and secrete chemicals. A gland selects and removes materials from the blood, processes them, and secretes the finished chemical product for use somewhere in the body. Almost every organ and cell in the body is affected by the endocrine system.

A group of glands that signal each other in sequence are usually referred to as an axis. One example is the hypothalamic-pituitary-adrenal axis, which coordinates interactions among the hypothalamus, the pituitary gland and the adrenal, also called "suprarenal" glands, which are small, conical organs on top of the kidneys.

The endocrine system sends signals throughout the body, much like the nervous system, but unlike the immediate responses triggered by the nervous system, the effects can take a few hours or weeks. Hormones released from endocrine tissue into the bloodstream where they travel to target tissue to elicit a response.

Endocrine glands are vascular and generally do not have ducts, using intracellular vacuoles, or granules, to store hormones. They differ from, exocrine glands – salivary glands, sweat glands and glands within the gastrointestinal tract – which have ducts or a hollow lumen.

The endocrine system gets some help from organs such as the kidney, liver, heart and gonads, which have secondary endocrine functions. The kidney, for example, secretes hormones such as erythropoietin and renin.

### Diabetes & Insulin Resistance

Insulin resistance is a condition in which the body produces insulin but does not use it effectively. When people have insulin resistance, glucose builds up in the blood instead of being absorbed by the cells, leading to type 2 diabetes or pre-diabetes. Most people with insulin resistance don't know they have it for many years—until they develop type 2 diabetes, a serious, lifelong disease. The good news is that if

people learn they have insulin resistance early on, they can often prevent or delay diabetes by making changes to their lifestyle.

When people with diabetes eat, the pancreas automatically produces the right amount of insulin to move glucose from blood into the cells. In people with diabetes, however, the pancreas either produces little or no insulin, or the cells do not respond appropriately to the insulin that is produced. Glucose builds up in the blood, overflows into the urine, and passes out of the body in the urine. Thus, the body loses its main source of fuel even though the blood contains large amounts of glucose. The three main types of diabetes are: type 1 diabetes, type 2 diabetes and gestational diabetes

<b>+</b> GLUCOSE (mg/dL)	76	84	Range: 65-99	
	Oct 2022	Jan 2023		
<b>+</b> INSULIN (uIU/mL)	2.6	4.4	3.1	2.3
	Mar 2022	Aug 2022	Oct 2022	Jan 2023
	Range: <19.7			

#### **-** Liver Health

The liver is one of the largest internal organs and is an important in your health. It is part of the digestive system and is connected to the small intestine by the bile duct. The liver is a multitasking organ, with many functions. Nearly all the blood that leaves the stomach and intestines passes through the liver for processing.

The liver is involved in these a group of body functions that include:

- Production of clotting factors, blood, proteins, bile, and greater than a thousand enzymes.
- Storage of energy from the food to provide fuel for muscles.
- Uses the cholesterol in the blood.
- Regulates the level of blood sugar and hormones in the body.
- Removes poisons such as drugs and alcohol from the blood.

### Liver Enzymes and Function Tests

Liver Enzymes and Function tests are used to see how well your liver is working. Your liver is the largest organ inside your body and it helps your body digest food, store energy, and remove poisons.

There are many kinds of liver diseases. Viruses cause some of them, like hepatitis A, hepatitis B and hepatitis C. Others can be the result of drugs, poisons or drinking too much alcohol. If the liver forms scar tissue because of an illness, it's called cirrhosis. Jaundice, or yellowing of the skin, can be one sign of liver disease. Cancer can also affect the liver. You could also inherit a liver disease such as hemochromatosis.

<b>+</b> PROTEIN, TOT... (g/dL)	7.2 Oct 2022	6.8 Jan 2023	Range: 6.1-8.1
<b>+</b> ALBUMIN (g/dL)	4.6 Oct 2022	4.4 Jan 2023	Range: 3.6-5.1
<b>+</b> GLOBULIN (g/dL (calc))	2.6 Oct 2022	2.4 Jan 2023	Range: 1.9-3.7

<b>+</b> ALBUMIN/GLO... ((calc))	1.8 Oct 2022	1.8 Jan 2023	Range: 1.0-2.5
<b>+</b> BILIRUBIN, TO... (mg/dL)	1.9 H Oct 2022	1.2 Jan 2023	Range: 0.2-1.2
<b>+</b> ALKALINE PHO... (U/L)	49 Oct 2022	45 Jan 2023	Range: 36-130
<b>+</b> AST (U/L)	29 Oct 2022	29 Jan 2023	Range: 10-40
<b>+</b> ALT (U/L)	28 Oct 2022	37 Jan 2023	Range: 9-46
<b>- Kidney &amp; Urinary Health</b>			

The kidney and urinary tract make up the urinary / renal system that cleanses the blood and rids the body of excess water and waste in the form of urine. The urinary tract consists of two kidneys, two ureters (one from each kidney), tubes that drain urine from the kidneys into the bladder (a storage sac), and the urethra. Muscles help control the release of urine from the bladder.

The kidneys receive blood from the aorta, filter it, and send it back to the heart with the right balance of chemicals and fluid for use throughout the body. The urine created by the kidneys is moved out of the body via the urinary tract.

The kidneys control the quantity and quality of fluids within the body.



They also produce hormones and vitamins that direct cell activities in many organs; the hormone renin, for example, helps control blood pressure. When the kidneys are not working properly, waste products and fluid can build up to dangerous levels, creating a life-threatening situation. Among the important substances the kidneys help to control are sodium, potassium, chloride, bicarbonate (HCO<sub>3</sub><sup>-</sup>), pH, calcium, phosphorus, and magnesium.

### Kidney Function Metabolic

<b>+</b> UREA NITROG... (mg/dL)	19 Oct 2022	14 Jan 2023	Range: 7-25
<b>+</b> CREATININE (mg/dL)	1.00 Oct 2022	1.01 Jan 2023	Range: 0.60-1.29
<b>+</b> EGFR (mL/min/1.73m <sup>2</sup> )	97 Oct 2022	96 Jan 2023	Range: > OR = 60
<b>+</b> BUN/CREATIN... ((calc))	NOT APPLICABLE Oct 2022	NOT APPLICABLE Jan 2023	Range: 6-22
<b>+</b> CALCIUM (mg/dL)	9.3 Oct 2022	9.4 Jan 2023	Range: 8.6-10.3

### **-** Electrolytes

Electrolytes are electrically charged minerals that are found in body

tissues and blood in the form of dissolved salts. They help move nutrients into and wastes out of the body's cells, maintain a healthy water balance, and help stabilize the body's pH level. The electrolyte panel measures the main electrolytes in the body: sodium (Na+), potassium (K+), chloride (Cl-), and bicarbonate (HCO<sub>3</sub><sup>-</sup>; sometimes reported as total CO<sub>2</sub>).

### Electrolytes

<b>+</b> SODIUM (mmol/L)	137 Oct 2022	139 Jan 2023	Range: 135-146
<b>+</b> POTASSIUM (mmol/L)	4.6 Oct 2022	4.5 Jan 2023	Range: 3.5-5.3
<b>+</b> CHLORIDE (mmol/L)	101 Oct 2022	104 Jan 2023	Range: 98-110
<b>+</b> CARBON DIOX... (mmol/L)	31 Oct 2022	28 Jan 2023	Range: 20-32

### **-** Blood Health

Blood is found in blood vessels that are made up of arteries, arterioles, capillaries, venules and veins, which take blood to and from every part of your body. Blood has several key functions that include transport, regulation & protection.

Blood transports oxygen from the lungs to the cells of the body and transports carbon dioxide from the body's cells to the lungs where it

is breathed out. Blood carries nutrients, hormones and waste products around the body. Blood regulates the acid-alkali balance of the body and plays an important part in regulating the body temperature. By increasing the amount of blood flowing close to the skin, the blood helps the body to lose heat. Blood also provides protection through both white blood cells that attack and destroy invading bacteria and other pathogens and through platelets that provide clotting and protects the body from losing too much blood after an injury.

### Platelets

Platelets are little pieces of blood cells. Platelets help wounds heal and prevent bleeding by forming blood clots. Your bone marrow makes platelets. Problems can result from having too few or too many platelets, or from platelets that do not work properly. If your blood has a low number of platelets, you can be at risk for mild to serious bleeding. If your blood has too many platelets, you may have a higher risk of blood clots. With other platelet disorders, the platelets do not work as they should. For example, in von Willebrand Disease, the platelets cannot stick together or cannot attach to blood vessel walls. This can cause excessive bleeding.

<b>+</b> PLATELET COU...	190	192	
(Thousand/uL)	Oct 2022	Jan 2023	Range: 140-400

### Red Blood Cells

Red blood cells (RBCs), also called erythrocytes, are cells that circulate in the blood and carry oxygen throughout the body. The RBC count totals the number of red blood cells that are present in a

person's sample of blood. Changes in the RBC count usually mirror changes in the hematocrit and hemoglobin level. When the values of the RBC count, hematocrit, and hemoglobin decrease below the established reference interval, the person is said to be anemic. When the RBC and hemoglobin values increase above the normal range, the person is said to be polycythemic. Too few RBCs can affect the amount of oxygen reaching the tissues, while too many RBCs can make the blood thicker, causing slowed blood flow and related problems.

<b>+</b> RED BLOOD C... (Million/uL)	4.62 Oct 2022	4.67 Jan 2023	Range: 4.20-5.80
<b>+</b> HEMOGLOBIN (g/dL)	13.1 L Oct 2022	13.1 L Jan 2023	Range: 13.2-17.1
<b>+</b> HEMATOCRIT (%)	41.2 Oct 2022	40.8 Jan 2023	Range: 38.5-50.0
<b>+</b> MCV (fL)	89.2 Oct 2022	87.4 Jan 2023	Range: 80.0-100.0
<b>+</b> MCH (pg)	28.4 Oct 2022	28.1 Jan 2023	Range: 27.0-33.0
<b>+</b> MCHC (g/dL)	31.8 L Oct 2022	32.1 Jan 2023	Range: 32.0-36.0

<b>+</b> RDW (%)	13.5 Oct 2022	12.5 Jan 2023	Range: 11.0-15.0
<b>+</b> MPV (fL)	11.0 Oct 2022	10.7 Jan 2023	Range: 7.5-12.5

### White Blood Cells

White blood cells, also called leukocytes, are cells that exist in the blood, the lymphatic system, and tissues and are an important part of the body's defense system. They help protect against infections and also have a role in inflammation, allergic responses, and protecting against cancer. The white blood cell (WBC) count totals the number of white blood cells in a person's sample of blood.

<b>+</b> WHITE BLOOD... (Thousand/uL)	4.6 Oct 2022	4.5 Jan 2023	Range: 3.8-10.8
<b>+</b> ABSOLUTE NE... (cells/uL)	2033 Oct 2022	1895 Jan 2023	Range: 1500-7800
<b>+</b> ABSOLUTE LY... (cells/uL)	2061 Oct 2022	2160 Jan 2023	Range: 850-3900
<b>+</b> ABSOLUTE M... (cells/uL)	414 Oct 2022	365 Jan 2023	Range: 200-950
<b>+</b> ABSOLUTE EO... (cells/uL)	60 Oct 2022	50 Jan 2023	Range: 15-500

<b>+</b> ABSOLUTE BA... (cells/uL)	32 Oct 2022	32 Jan 2023	Range: 0-200
<b>+</b> NEUTROPHILS (%)	44.2 Oct 2022	42.1 Jan 2023	Range: See Comments
<b>+</b> LYMPHOCYTES (%)	44.8 Oct 2022	48.0 Jan 2023	Range: See Comments
<b>+</b> MONOCYTES (%)	9.0 Oct 2022	8.1 Jan 2023	Range: See Comments
<b>+</b> EOSINOPHILS (%)	1.3 Oct 2022	1.1 Jan 2023	Range: See Comments
<b>+</b> BASOPHILS (%)	0.7 Oct 2022	0.7 Jan 2023	Range: See Comments

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