

BLOOD TEST RESULTS - NORMAL RANGES BLOODBOK.COM

"Information for Life"



BLOOD TESTS 'NORMAL' REFERENCE BLOOD TEST RANGES AND BLOOD TEST RESULTS FOR FEMALE, BLOOD TEST RESULTS FOR MALE, OTHER BLOOD TESTING AND RARE BLOOD TESTING RESULTS.

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Blood test results, made possible by the taking of Blood tests, are one of the most important tools that your doctor uses in evaluating your health status. It is important to realize that your Blood test result may be outside of what is called the 'normal range' for many reasons. Blood tests, including various Blood chemistry and hematology 'Blood tests' offered by most test labs, represent an economical way by which quality information about a patient's physical condition, at the time of the Blood testing, can be made available to the physician. These Blood test results, after review and interpretation by a qualified Blood professional, play an important part in an overall diagnosis. Blood test results are compared and measured in 'normal ranges' for a given population group. Low cost Blood tests, discount Blood testing and even free Blood tests are available and listed in your local community.

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There are more Blood facts indexed by category. Please [CLICK HERE](#).

A large number of laboratory Blood tests are widely available. Many Blood tests are specialized to focus on a particular disease or group of diseases. Many different Blood tests are used commonly in many specialties and in general practice.

[SEE HIV HOME BLOOD TEST KIT INFORMATION - TEST FOR HIV/AIDS AT HOME](#)

Because most Blood test reference ranges (often referred to as 'normal' ranges of Blood test results) are typically defined as the range of values of the median 95% of the healthy population, it is unlikely that a given Blood sample, even from a healthy patient, will show "normal" values for every Blood test taken. Therefore, caution should be exercised to prevent overreaction to mild abnormalities without the interpretation of those tests by your examining physician. Again, a Blood test, though important, is only a part of the final diagnosis of a health problem. Often, you

can get your Blood tested at the [Bloodmobile](#).

Most Blood tests fall within one of two categories: screening or diagnostic.

Screening Blood tests are used to try to detect a disease when there is little or no evidence that a person has a suspected disease. For example, measuring cholesterol levels helps to identify one of the risks of heart disease. These screening tests are performed on people who may show no symptoms of heart disease, as a tool for the physician to detect a potentially harmful and evolving condition. In order for screening tests to be the most useful they must be readily available, accurate, inexpensive, pose little risk, and cause little discomfort to the patient.

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Diagnostic Blood tests are utilized when a specific disease is suspected to verify the presence and the severity of that disease, including allergies, HIV, AIDS, Hepatitis, cancer, etc.

What is a Blood test? Blood tests are an essential diagnostic tool. Blood is made up of different kinds of cells and contains other compounds, including various salts and certain proteins. Blood tests reveal details about these Blood cells and, Blood compounds, salts and proteins

The liquid portion of the tested Blood is plasma. When our Blood clots outside the body, the Blood cells and some of the proteins in Blood turn into a solid. The remaining liquid is called serum, which can be used in chemical tests and in other Blood tests to find out how the immune system fights diseases. Doctors take Blood samples and grow the organisms, found in Blood tests, that cause illness, to evaluate each, microscopically.

How is a Blood test carried performed? Blood samples taken for Blood testing can be taken either from a vein or from an artery. A few drops of Blood are needed, most of the time. It is often enough to take a small drop from the tip of your finger and then squeeze the Blood out for Blood testing. Most Blood tests are taken from a vein (veins carry Blood FROM the heart,) most often from those veins near the elbow. First a tourniquet is tied around the upper arm to make the vein easy to find and take the Blood for the Blood test.

The place where the injection is to take place is then made sterile and then a hollow needle is put into the vein. The needle will be attached either to a Blood test sample bottle or to a syringe where the plunger is pulled back to create low negative pressure. When the needed amount of Blood for testing has been removed from the vein, the needle is removed. The area is then re-cleaned and pressure is placed on the area with a small ball of cotton. This is pressed against the area for a couple of minutes before applying a bandage. Blood tests are relatively painless.

Platelet testing is a Blood test that is often used by doctors. First lets define platelets. Platelets are very small cells in the Blood. These clump together at places where injury to Blood vessels occur. They are the basis of the Blood clot that normally forms when the skin is broken.

A Blood test revealing a low platelet count can make us vulnerable to bleeding, sometimes even without an injury that

we see. Some of the causes of a low Blood platelet count include autoimmune diseases, where the effected individual produces an antibody to his or her own platelets, chemotherapy, leukemia, viral infections and some medicines. High numbers of platelets make an individual more vulnerable to Blood clotting. High Blood platelet counts are always found where a condition involving bone marrow such as leukemia, cancer and other Blood borne conditions that are revealed by Blood test results.

Pharmacy shelves are stocked with do-it-yourself home tests for Blood glucose, Blood cholesterol paternity tests and pregnancy tests. OraSure Technologies Inc., makes and sells a 20-minute, at-home test that screens for two HIV strains using a swab device that tests saliva.

No Blood test is completely accurate all of the time. Sometimes a test result is incorrectly abnormal in a person who does not have the suspected disease (a false-positive result). Sometimes a test result is incorrectly normal in a person who has the disease (a false-negative result). Tests are rated in terms of their sensitivity (the probability that their Blood testing results will be positive when a disease is present) and their specificity (the probability that their test results will be negative when a disease is not present). A very sensitive test is unlikely to miss the disease in people who have it, however, it may falsely indicate disease in healthy people. A very specific test is unlikely to indicate disease in healthy people. Although, it may miss the disease in some who have it. Problems with sensitivity and specificity can be largely overcome by using several different Blood tests.

Because your physician can not always be sure whether or not the reported result of a particular test from a particular person is false or true, a person with an abnormal result may often need to be re-tested or undergo a different type of testing.

Normal test result values are expressed as a reference range, which is based on the average values in a healthy population; 95% of healthy people have values within this range. These values vary somewhat among laboratories, due to methodology and even geography. Blood tests and Blood testing methods and quality vary widely in different parts of the world and in different parts of many countries, due to **characteristics in the population**, both racial Blood differences and ethnic Blood characteristics, among other factors.

American Blood laboratories use a different version of the metric system than does most of the rest of the world, which uses the Systeme Internationale (SI). In some cases translation between the two systems is easy, but the difference between the two is most pronounced in the measurement of chemical concentration. The American system generally uses mass per unit volume, while SI uses moles per unit volume. Since mass per mole varies with the molecular weight of the substance being analyzed, conversion between American and SI units requires many different conversion factors.

Keep in mind that there are three Blood test "normal ranges."

Normal Range Results

The results of virtually all Blood tests ordered in North America are compared to "normal ranges" as provided on a "Lab Results Report." If your tests indicate that you are within the normal range, you are most often considered normal. A "normal" Blood test result does not necessarily mean that you are healthy. The problem with these lies in how "normal ranges" are determined at that particular Blood testing laboratory.

Population Best/Optimum Ranges

In our opinion, every Blood test result must be compared to Blood test result scores other than the accepted lab "norms." Your potential statistical best possible Blood test ranges must be considered. These Blood test range "best" results should be interpreted considering your physiology and unique biochemistry such as your height your weight, age, gender, health history since childhood. Further, the inter-relationship with your other blood test scores must be considered. One imbalance often causes another. Blood test range scores outside your unique Blood test range results can be affected by sleep, diet, exercise, medicines, and vitamin supplements.

Your Personal Norms

Your Blood test score, chronicled over time, will vary by few points, one way or the other. These Blood test results, considering sleep, diet, exercise, medicines, and vitamin supplements, etc. will most certainly vary. Each person on any given day has their own set of Blood test results.

Consider your gas mileage in your car. If reviewed over time, each time you fill up and record your gas mileage, it varies. The car is the same, the driver is the same, the gas is the same, but the mileage, from fill-up to fill-up varies. We recommend periodical **Personal Blood Testing**.

Your personal norms must be considered over time. Each individual has his or her own unique personal Blood test normal range, best for you. Remember, if you do not get Blood tests, and if you do not keep track of them, and if you do not have them available to your doctor, You will not know and can not use your normal Blood test range.

 [View "What Does My Blood Test Mean Pages?"](#) 

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The following Blood Test Reference Range Chart is presented in the "American Metric" format (exceptions as noted.)
View Measurements section [HERE](#).

BLOOD TEST REFERENCE RANGE CHART

Test	Reference Range (conventional units*)
17 Hydroxyprogesterone (Men)	0.06-3.0 mg/L
17 Hydroxyprogesterone (Women) Follicular phase	0.2-1.0 mg/L
25-hydroxyvitamin D (25(OH)D)	8-80 ng/mL
Acetoacetate	<3 mg/dL
Acidity (pH)	7.35 - 7.45
Alcohol	0 mg/dL (more than 0.1 mg/dL normally indicates intoxication) (ethanol)
Ammonia	15 - 50 µg of nitrogen/dL
Amylase	53 - 123 units/L
Ascorbic Acid	0.4 - 1.5 mg/dL
Bicarbonate	18 - 23 mEq/L (carbon dioxide content)
Bilirubin	Direct: up to 0.4 mg/dL Total: up to 1.0 mg/dL
Blood Volume	8.5 - 9.1% of total body weight
Calcium	8.5 - 10.5 mg/dL (normally slightly higher in children)
Carbon Dioxide Pressure	35 - 45 mm Hg
Carbon Monoxide	Less than 5% of total hemoglobin
CD4 Cell Count	500 - 1500 cells/µL
Ceruloplasmin	15 - 60 mg/dL
Chloride	98 - 106 mEq/L
Complete Blood Cell Count (CBC)	Tests include: hemoglobin , hematocrit , mean corpuscular hemoglobin , mean corpuscular hemoglobin concentration , mean corpuscular volume , platelet count , white Blood cell count Please click each to view an individual test value.
Copper	Total: 70 - 150 µg/dL
Creatine Kinase (CK or CPK)	Male: 38 - 174 units/L Female: 96 - 140 units/L

Creatine Kinase Isoenzymes	5% MB or less								
Creatinine	0.6 - 1.2 mg/dL								
Electrolytes	Test includes: calcium, chloride, magnesium, potassium, sodium Please click each to view an individual test value.								
Erythrocyte Sedimentation Rate (ESR or Sed-Rate)	Male: 1 - 13 mm/hr Female: 1 - 20 mm/hr								
Glucose	Tested after fasting: 70 - 110 mg/dL								
Hematocrit	Male: 45 - 62% Female: 37 - 48%								
Hemoglobin	Male: 13 - 18 gm/dL Female: 12 - 16 gm/dL								
Iron	60 - 160 µg/dL (normally higher in males)								
Iron-binding Capacity	250 - 460 µg/dL								
Lactate (lactic acid)	Venous: 4.5 - 19.8 mg/dL Arterial: 4.5 - 14.4 mg/dL								
Lactic Dehydrogenase	50 - 150 units/L								
Lead	40 µg/dL or less (normally much lower in children)								
Lipase	10 - 150 units/L								
Zinc B-Zn	70 - 102 µmol/L								
Lipids:									
Cholesterol	Less than 225 mg/dL (for age 40-49 yr; increases with age)								
Triglycerides	<table border="0"> <tr> <td>10 - 29 years</td> <td>53 - 104 mg/dL</td> </tr> <tr> <td>30 - 39 years</td> <td>55 - 115 mg/dL</td> </tr> <tr> <td>40 - 49 years</td> <td>66 - 139 mg/dL</td> </tr> <tr> <td>50 - 59 years</td> <td>75 - 163 mg/dL</td> </tr> </table>	10 - 29 years	53 - 104 mg/dL	30 - 39 years	55 - 115 mg/dL	40 - 49 years	66 - 139 mg/dL	50 - 59 years	75 - 163 mg/dL
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30 - 39 years	55 - 115 mg/dL								
40 - 49 years	66 - 139 mg/dL								
50 - 59 years	75 - 163 mg/dL								

60 - 69 years 78 - 158 mg/dL

> 70 years 83 - 141 mg/dL

Liver Function Tests

Tests include **bilirubin (total)**, **phosphatase (alkaline)**, **protein (total and albumin)**, **transaminases (alanine and aspartate)**, **prothrombin (PTT)**

Please click each to view an individual test value.

Magnesium

1.5 - 2.0 mEq/L

Mean Corpuscular Hemoglobin (MCH)

27 - 32 pg/cell

Mean Corpuscular Hemoglobin Concentration (MCHC)

32 - 36% hemoglobin/cell

Mean Corpuscular Volume (MCV)

76 - 100 cu μ m

Osmolality

280 - 296 mOsm/kg water

Oxygen Pressure

83 - 100 mm Hg

Oxygen Saturation (arterial)

96 - 100%

Phosphatase, Prostatic

0 - 3 units/dL (Bodansky units) (acid)

Phosphatase

50 - 160 units/L (normally higher in infants and adolescents) (alkaline)

Phosphorus

3.0 - 4.5 mg/dL (inorganic)

Platelet Count

150,000 - 350,000/mL

Potassium

3.5 - 5.0 mEq/L

Prostate-Specific Antigen (PSA)

0 - 4 ng/mL (likely higher with age)

Proteins:

Total

6.0 - 8.4 gm/dL

Albumin

3.5 - 5.0 gm/dL

Globulin

2.3 - 3.5 gm/dL

Prothrombin (PTT)

25 - 41 sec

Pyruvic Acid	0.3 - 0.9 mg/dL
Red Blood Cell Count (RBC)	4.2 - 6.9 million/ μ L/cu mm
Sodium	135 - 145 mEq/L
Thyroid-Stimulating Hormone (TSH)	0.5 - 6.0 μ units/mL
Transaminase:	
Alanine (ALT)	1 - 21 units/L
Aspartate (AST)	7 - 27 units/L
Urea Nitrogen (BUN)	7 - 18 mg/dL
BUN/Creatinine Ratio	5 - 35
Uric Acid	Male 2.1 to 8.5 mg/dL (likely higher with age) Female 2.0 to 7.0 mg/dL (likely higher with age)
Vitamin A	30 - 65 μ g/dL
WBC (leukocyte count and white Blood cell count)	4.3-10.8 $\times 10^3$ /mm ³
White Blood Cell Count (WBC)	4,300 - 10,800 cells/ μ L/cu mm

*Please visit our [measurement](#) and [abbreviation](#) pages.

 [Blood Test Kits](#) 

 [View "What Does My Blood Test Mean Pages?"](#) 

There is more about Blood, indexed by category, Please [CLICK HERE](#).

BODY SURFACE AREA CALCULATOR

$$\frac{(\text{weight (kg)} \times 0.425) \times (\text{height (cm)} \times 0.725)}{139.315}$$

IDEAL BODY WEIGHT CALCULATOR

Male: $50 \text{ Kg} + (\# \text{ inches} > 5 \text{ ft} \times 2.3)$

Female: $45.5 \text{ Kg} + (\# \text{ inches} > 5 \text{ ft} \times 2.3)$

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