



1107 Highway 395 • Gardnerville, NV 89410  
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## Understanding Your Laboratory Results

### Community Wellness Lab Draw Tests

#### HEMATOLOGY

**WBC** (White blood Cell Count) refers to the leukocytes or white blood cells found in your blood. These cells are primary responsible for the body's defense system. An increase in WBCs generally indicates the body is responding to an infection process, usually caused by bacteria. A low WBC count may indicate the body's response to a viral infection. Both low and high counts should be reported to your doctor.

**Hemoglobin** is the component of the red blood cell, related to iron levels, responsible for carrying oxygen and carbon dioxide to and from all parts of the body. Increased hemoglobin is often seen in people living in high (Lake Tahoe) as well as some blood disorders.

**Hematocrit** is the ratio of red blood cells to the total blood volume. Low levels may be indicative of dehydration or polycythemia.

#### CHEMISTRY

**Sodium** is a body salt that is regulated by the kidneys and the adrenal glands. Disease or either of these organs, as well as such conditions as dehydration can result in abnormal values.

**Potassium** is a body sale that is carefully controlled by the kidneys. It is important for the proper functioning of nerves and muscles, including the heart.

**Chloride** is a body salt that is regulated by the kidneys. It generally increased or decrease along with sodium levels.

**Carbon dioxide** (CO<sub>2</sub>) is an ion that is instrumental in the acid-base ((pH) balance of your body's cells, and is regulated by your lungs and kidneys. Increased levels can be caused by emphysema and other disease related to smoking.

**Glucose** is the measure of sugar in the blood. High results can be seen in diabetes and in having eaten before the test. Abnormal results should be reported to your doctor.

**BUN & Creatinine** are waste products that are normally removed from the blood by the kidneys and excreted. Elevated levels may indicate kidney disease, although certain other conditions elevate BUN such as dehydration, etc.

**Calcium** is a mineral in the blood that is controlled by the parathyroid glands, the kidney and some vitamins. It is found largely in bone but is also important for proper blood clotting and in nerve and muscle activity.

**Cholesterol & Triglycerides** are a measure of fats in the blood. Elevated levels may be seen with heavy alcohol consumption, eating before the test and in a variety of hereditary and non-hereditary conditions.

**HDL Cholesterol** (High Density Lipoprotein) is also classified as a blood fat and serves to transport cholesterol. There is evidence that, unlike total cholesterol and triglycerides, an increased level of HDL cholesterol, the so-called "good" cholesterol, may actually reduce the level of risk for coronary heart disease.

**LDL Cholesterol** (Low Density Lipoprotein) is often referred to as "bad" cholesterol because an excess of LDL may deposit cholesterol in the walls of the arteries over time. Elevated levels are associated with an increased frequency in hardening of the arteries (atherosclerosis) that may cause heart disease, kidney disease, stroke and other circulation disorders.

**Cholesterol Ratio** is the ratio between total Cholesterol and HDL. Data from various studies suggests that the ratio may provide a "Rule of Thumb" guide in predicting increased risk to coronary heart disease.

**Total Protein** measures the sum of the proteins in your blood, primarily Albumin and Globulin. They are a general index to overall health and nutrition. Abnormal levels are seen in liver disease, kidney disease and poor nutrition.

**Albumin** is a major protein fraction in the blood. Albumin is manufactured in the liver. Abnormal results may be seen in kidney disease and poor nutrition.

**AST** is an enzyme produced in the liver. Elevated results may indicate liver disease.

**Alkaline Phosphatase** is an enzyme in the blood that is found primarily in the bones and liver. High levels may result when damage to the bones or liver has occurred, as well as in growth (children) and pregnancy.

**Bilirubin Total** measurement of bile pigments in blood. Elevated values may be seen in liver disease, gall bladder disease, and certain blood disorders and should be elevated by your doctor. Low values are probably of no significance.

#### ADDITIONAL TESTS

**PSA** (Prostate Specific Antigen ) is recommended by; the American Cancer Society for all men over 45 and men over 40 with a family history of prostate cancer. PSA is a simple blood test that detects substances that may be an early warning sign of prostate cancer. Any abnormal results should be followed up with an office visit and a digital exam, which is performed by your physician.

**TSH** (Thyroid Stimulating Hormone) is produced by the pituitary gland and is important in regulating the thyroid gland. The thyroid produces several hormones that influence the body's metabolism. An increased TSH may indicate hypothyroidism and TSH may indicate hyperthyroidism.

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Some health problems can be detected through test results, others cannot. Minor variations from normal are not uncommon and are not necessarily cause for alarm. However, if you have any test results listed outside the normal range, you should consult you personal physician for further evaluation, please do not call the laboratory. A copy of you test results will be sent to the physician you listed. If a physician was not listed, your results will be sent to the CVMC Complete Care. Results are not to be considered as a substitute for a health assessment as performed in a physician's office. Results outside "normal" limits are indicated by "H" for high and "L" for Low to the side of the results. The expected normal range (NRML –RANGE) is listed in the middle of the report.