

## Your Screening Results

Screening results that fall OUTSIDE reference ranges will be marked as high or low. These values may indicate one of the following possibilities:

1. You were not fasting when your blood was drawn.
2. There may have been a problem with drawing your blood. If this issue is encountered you may be asked to report to the Lab for specimen recollection.
3. You have possible problems needing medical evaluation.

Though it is not possible to diagnose or treat any disease or health problem with this blood screening alone. It can help you learn more about your body and detect potential problems in early stages when treatment or changes in personal health habits can be most effective.

An RGH Provider will be available to meet with you to discuss any questions you might have once you have the results of your blood screening.

## The Screening...

### *BUN (Blood Nitrogen)*

Is a waste product derived from protein breakdown in the liver, it is excreted by the kidneys. When your kidneys are not working well, the level of BUN in the blood will rise. Dehydration, blood loss, high protein diets and/or strenuous exercise can also cause a high BUN level. A low BUN level may be the result of liver disease, a low protein diet, pregnancy or drinking too much water.

### *Creatinine*

Is a waste product by which muscle metabolism is measured. The blood concentration of creatinine depends upon two things - the amount of muscle you have and the ability of your kidneys to excrete the creatinine. It is not affected by the protein you consume. High levels of creatinine in the blood usually indicate a deterioration in kidney function. High values require medical evaluation by your healthcare provider, especially when associated with high BUN results. Low values are not generally significant.

### *Potassium*

Are you receiving enough potassium? A low potassium level can cause muscle weakness and heart problems. A high potassium level can be found in kidney disease or in overuse of potassium supplements. Some “salt” substitutes contain potassium instead of sodium. Excessive use of the substitutes can cause dangerously high levels of potassium in the blood. Any value outside the specified Reference Range, high or low, requires medical evaluation. This is especially important if you are taking a diuretic or heart medication.

### *Cholesterol (CHOL)*

Is an essential blood fat found in nearly every body tissue. Elevated levels have been shown to be associated with a higher risk of heart disease and clogged blood vessels. If elevated, the result should be discussed with your health care provider.



## Your Blood Tests...

You and your healthcare provider can learn a great deal about your health from a sample of your blood. Sometimes test results will be abnormal before you have any symptoms. For those times when symptoms have developed, laboratory test results help confirm that a problem does exist.

A normal test result is just as significant as an abnormal result. Normal results not only help to rule out disease, but it also establishes a baseline for you. Each person has his or her own baseline “normal”, excellent for monitoring any change that takes place in the future. If any of your values are significantly different than previous health fair results, but still normal, contact your health care provider.

## Medications and Fasting

Non-prescription drugs (aspirin, cold medications, vitamins, etc), prescription drugs, alcohol consumption and your fasting time may affect blood chemistry screening results. A 12-hour fast is recommended for the most accurate results. It is fine to drink water before tests.



## **Calcium**

Is one of the most important elements in the body. Ninety-nine percent of the calcium in your body is contained in your bones - only one percent is outside. But, that one percent is very important for the proper function of nerves, enzymes, muscles, and blood clotting. The parathyroid gland is the main regulator of calcium in the body. Low levels of calcium in the blood are associated with malnutrition. High levels can be caused by bone disease, excessive use of antacids and milk (this is often seen in people with ulcers), overdosing on vitamin D and hyperparathyroidism. Any elevated calcium result should be evaluated by your health care provider.

## **Phosphorus (PHOS)**

Is closely associated with calcium in bone development. Most of the phosphorus in the body is found in the bones. But the phosphorus level in the blood is very important for muscle and nerve function. Very low levels of phosphorus can be associated with starvation or malnutrition and can lead to muscle weakness. High levels in the blood are usually associated with kidney disease. A low phosphorus should be evaluated by your health care provider.

## **Albumin**

Approximately two-thirds of the total protein circulating in your blood is albumin. This important protein keeps water inside your blood vessels. When your albumin level is too low, water can leak into other parts of your body and cause swelling. A low level of albumin in the blood can be caused by malnutrition, too much water in the body, liver disease, kidney disease, severe injury or major bone fractures, and slow bleeding over a long period of time.

## **Hemoglobin A1c**

This blood screening measures your average blood sugar for the past 3 months. The results give you a good idea of whether or not you are at risk for diabetes. If you have been diagnosed with diabetes, this will show how well your diabetic treatment plan is working.

## **Total Bilirubin (TBIL)**

Is the pigment in the blood that makes the plasma or serum part of your blood yellow. When the bilirubin level in the blood is very high for a period of time, the whites of your eyes and your skin may become yellow - this is known as jaundice. Bilirubin comes from the breakdown of old red cells in the blood. A high bilirubin level in the blood can be caused by red blood cells being destroyed (hemolysis), by liver disease or by a blockage of bile ducts.

## **Alkaline Phosphatase (ALP)**

Is an enzyme that is found in all body tissue. A high level of alkaline phosphatase in your blood may indicate bone, liver or bile duct disease. Certain drugs may also cause increased levels. Growing children, because of bone growth, normally have a higher level than adults. Low values are not generally considered significant.

## **Total Protein (TOT. PROT.)**

Proteins are found in all cells of the body as well as in all fluids, secretions, and excretions. Proteins serve to provide tissue nutrition, maintain water distribution between cells and tissues, maintain acid/base balance, participate in coagulation and the transport of metabolic substances. Hormones and the antibody defense system are also made up of proteins found in the body.

## **AST**

Enzyme is found mainly in the heart, liver and muscles. It is released into the blood stream when any of these organs are damaged. Increased levels are usually associated either with liver disease or heart attacks.

## **ALT**

Enzyme is found mainly in the liver. Damage from alcohol, strenuous exercise and a number of diseases can cause high values for both AST and ALT. Low values are not generally considered significant.

## **Triglyceride**

It is a fatty substance in the body that acts as a major form of stored energy. This is a blood fat that may be related to a higher risk of heart disease. Elevated levels may be caused by food and alcohol. You should not eat for at least 12 hours to obtain an accurate result for this test. Low values are not generally considered significant.

## **High Density Lipoprotein (HDL)**

Is often called "good" cholesterol because higher levels are associated with lower incidence of heart disease.

## **Low Density Lipoprotein (LDL)**

Or "bad" cholesterol can clog arteries in the heart causing heart attacks.

## **Complete Blood Count (CBC)**

Is the mechanical counting of red cells, white cells and platelets in the blood and measuring hemoglobin level. The Red Cell Count (RBC), hemoglobin and hematocrit indicate the oxygen carrying capacity of the blood. The White Cell Count (WBC) can indicate an infection when elevated and could reveal an immune system deficit if below normal. Platelets are cellular elements which assist in blood clotting. Indices compare total count, hemoglobin content and hematocrit. An example of these is MCV (Mean Cell Volume) which indicates cell size and can be a sign of iron or Vitamin B12 deficiency.

## **\*Thyroid Stimulating Hormone**

Is secreted by the pituitary gland. This test can help detect abnormalities in your thyroid system.

## **\*Prostatic Specific Antigen (PSA)**

Is an enzyme found in the prostate. This test is used to detect prostate cancer (may cause elevated result) and to monitor treatment.