Hematology Wellness

WBC (White Blood Count): These are inflammatory cells that are normally present in the bloodstream. Increased WBC can be seen due to infection, medication reactions (particularly steroid therapy), and blood cancers. Low WBC may indicate a problem with the bone marrow.

Red Blood Cell Count (RBC): Red Blood cells carry hemoglobin in the blood stream.

Hemoglobin (HGB): Protein that carries oxygen from the lungs and transports carbon dioxide away from tissues of the body. Hemoglobin is what makes your blood appear red and is carried in the bloodstream by 'red blood cells'. Low hemoglobin is called 'anemia' and should be investigated further by a primary care provider.

Hematocrit (HCT): Portion of the blood volume composed of red blood cells. This is typically correlated with the amount of hemoglobin and red cells in the blood stream.

Mean Corpuscular Volume (MCV): Measurement of average volume (size) of the red blood cells. Low MCV values are common in anemia due to iron deficiency.

Mean Corpuscular Hemoglobin (MCH): Calculation that describes how much hemoglobin is present in a red blood cell.

Mean Corpuscular HGB Concentration (MCHC): Calculation that shows the average concentration of hemoglobin in a red blood cell. Low values are common in anemia.

Red Cell Distribution Width (RDW): Calculation of the variability of red blood cell size. Higher RDW is often seen in anemia.

Platelet (PLT): Small fragments of cells that are important in forming blood clots at sites of injury.

Chemistry Wellness

Glucose: This is a measurement of blood glucose (sugar) and tests for diabetes. If your fasting value is elevated, it should be discussed with your primary care provider.

BUN (Blood Urea Nitrogen) and Creatinine: These tests detect the presence of kidney function. Abnormally high creatinine levels correlate to impaired kidney function. These tests may also be abnormal due to dietary issues (poor nutrition) and hydration status.

eGFR (EST): eGFR is the estimated glomerular filtration rate. This is a measure of how well your kidneys are working. The eGFR may not be accurate if you are younger than 18, pregnant, very overweight, or very muscular. An eGFR lower than 60 should be discussed with your primary care provider.

Calcium: Calcium is important for bone health. As it is a principal component of mineralized bone. Calcium is also required for blood clotting, cardiac and skeletal muscle function, and nerve functions.

Alk Phos (Alkaline Phosphatase): This is an enzyme involved in bone metabolism. Elevations of this value may indicate possible liver or bone disorders.

AST: AST is an enzyme primarily produced by the liver. Elevated levels in the blood may indicate liver damage or muscle damage.

Sodium: Sodium (Na+) is an electrolyte atom that is essential for maintaining appropriate blood and intra-cellular volume and ensuring normal nerve conduction including that within the heart. Excess dietary sodium intake is very common, and excess dietary sodium can exacerbate heart and kidney problems. Abnormalities in sodium concentration in the blood should be further investigated by a primary care provider.

Potassium: Potassium is essential to nerve function and maintaining fluid balance between cells and the blood stream. Potassium is important in monitoring high blood pressure (hypertension), kidney disease, and diuretic ('water pill') therapy.

Cholesterol Wellness

Triglycerides: Triglycerides are blood fats that are associated with an increased risk of cardiovascular disease.

Cholesterol: This is a 'building block' molecule produced by the liver. Elevated blood cholesterol is a marker of increased risk for developing atherosclerotic cardiovascular disease ('hardening of the arteries').

HDL Cholesterol: As opposed to LDL and total Cholesterol, a high HDL value is considered to lower the risk of atherosclerotic cardiovascular disease.

LDL Cholesterol, Calculated: High LDL is associated with increased risk of developing atherosclerotic cardiovascular disease. The statin class of medications work to lower the amount of LDL in the blood and in turn, help to lower cardiovascular disease risk. Diet and exercise can also be used to lower LDL.

Chol/HDL Ratio: This is a commonly used ratio for cardiac risk assessment.

Specialty Wellness

TSH (Thyroid Stimulating Hormone): TSH is secreted by the pituitary gland into the bloodstream and acts on the thyroid gland to make hormones that help control your body's metabolism. TSH is a useful test to screen for thyroid problems.

Hemoglobin A1C: Also known as HbA1C, glycated hemoglobin or glycosylated hemoglobin, this test is a blood test that correlates with a person's average blood glucose level over a span of 2-3 months. It is used to diagnose diabetes and prediabetes and is useful to monitor treatment of diabetes. An abnormal HbA1C result should prompt a visit with your primary care provider.

Vitamin D 25(OH): Vitamin D ('Vit D') is primarily important for maintaining bone health. Vit D can be ingested via limited dietary sources (fortified mild, some types of fish, egg yolks) and some Vit D can be made in the skin when exposed to adequate sunlight. Mild deficiency of Vit D is common in northern latitudes.

PSA (Prostate Specific Antigen): PSA is a blood test that may be used to screen at-risk men for prostate cancer, typically over the age of 50. PSA is made in the prostate gland, and some prostate cancers cause increased amounts of PSA to circulate in the bloodstream. An abnormal PSA is not diagnostic of prostate cancer; an abnormal result should generally be followed up with a repeat PSA test. Causes of increased PSA other than cancer include benign enlargement of the prostate (BPH) and inflammation of the prostate (both are very common conditions).

ABO/RH Type: Blood typing is required when donating blood or receiving a blood/blood product transfusion. Type 'O' blood can be given to anyone with A, B, AB, and O blood types. ABO blood type is designated with a 'Neg (-)' or a 'Pos (+)' suffix depending on whether the blood cells contain Rh factor. For example, a person who has Type O blood, and is positive for Rh factor, would have the blood type designation of 'O Pos' or 'O+'.

Magnesium (Mg++): Magnesium measures the level of magnesium in the blood to diagnose deficiencies (hypomagnesemia) or excesses (hypermagnesemia), which affect muscle, nerve, and heart function. You get it from food and supplements. It's also an ingredient in some medicines such as antacids and laxatives. It is commonly ordered for symptoms like muscle spasms, arrhythmias, or to monitor conditions like kidney disease and malnutrition. Magnesium also helps balance the levels of calcium, copper, zinc, potassium, vitamin D, and other important nutrients in your body

Specialty Wellness

Vitamin B-12 (Cobalamin): Your body needs steady levels of vitamin B-12 to make enough red blood cells and keep your nervous system working. It is found in animal products such as dairy, eggs, fish, and chicken, as well as fortified cereals and nutritional yeast. Vitamin B-12 deficiencies can be due to diet (ex. vegan/vegetarian), pernicious anemia, or absorption issues (ex. Crohn's, celiac disease). Deficiencies can cause fatigue, neurological issues, or anemia.

Iron (FE): An iron test is a simple way to see how your body is using and storing iron. This test tells you how much iron you have in your blood. Iron is a mineral that your body needs for growth and development. Iron is an essential mineral that helps your body make hemoglobin, which carries oxygen to your cells and organs. You get iron from the foods you eat or from supplements. Iron is also important for healthy muscles, bone marrow, and organ function. Your body needs iron to make hormones.

Total Iron-Binding Capacity (TIBC): A TIBC test is used to measure your blood's ability (capacity) to attach (bind) to iron and carry it throughout your body. It can be used to help diagnose iron-deficiency anemia and other iron metabolism conditions. You get iron from eating food or taking supplements. There are iron-only supplements, but many multivitamin/mineral supplements also contain iron.