

FROM Ryan Family Medicine (updated September 2013)

Interpreting your lab results and other studies:

“Arthritis panel”: Normal results indicate low likelihood that you have an inflammatory connective tissue disease. It does not test for osteoarthritis ("wear and tear" arthritis) which is not diagnosed based on lab testing. This “panel” contains the following tests: Lyme, ANA (lupus related studies) Rheumatoid factor, Uric acid (gout), ESR (sedimentation rate which corresponds to inflammatory proteins present in the blood) and CRP (C-reactive protein which is also a test related generally to inflammation).

CBC means **Complete Blood Count**: Hemoglobin and hematocrit, platelets (clotting agents in blood), white cells (involved in fighting infection).

BMP means **Basic Metabolic Panel**: Electrolytes (sodium, potassium, chloride), calcium, kidney function, blood sugar.

Cholesterol is comprised of total, triglycerides, and LDL (“low density”) which are all better if lower, and HDL (“high density”) which is better if higher. We will indicate on your labs your goal levels.

CMP means **Complete Metabolic Panel**: BMP components (above), liver function, proteins.

CRP ("C-reactive protein"). If elevated this is an indicator of some sort of inflammation, and in some cases we associate it with an increased risk of heart disease and stroke over time.

ESR (or erythrocyte sedimentation rate) is a non-specific test for inflammation. When normal it generally indicates the absence of infection or serious inflammatory condition

HbA1C (*also known as A1C or glycosylated hemoglobin*). This is a test that gives an idea of your blood sugar level over a 3 month period. Why 3 months? That is the life span of our hemoglobin (and oxygen) carrying red blood cells. The membrane of our red blood cells tells us about the overall concentration of sugar in our blood stream during our red blood cells' life span. If there is more sugar than desired in the blood stream the red blood cell membrane will acquire more, and your A1C will be higher. This is an indication of your overall blood sugar control.

Hyperglycemia or elevated blood sugar. This does not mean you have diabetes, but you may be at risk of developing diabetes. The best approach to normalizing our blood sugar levels is increasing exercise or activity, hydration, and moderation and improvement of diet.

PSA

Prostate specific antigen is a marker for the prostate and is used as a screen for prostate enlargement or cancer.

LFT means **Liver Function Test**. Often these enzymes are mildly and temporarily elevated. Most of the time, elevated liver enzymes don't signal a chronic, serious liver problem. The most common causes of elevated liver enzymes include: medications (including over the counter tylenol or acetaminophen), alcohol use, infections, excess body fat.

Testosterone: Testosterone levels vary from day to day, and from one time of day to another. A diagnosis of low testosterone is not made from a single blood test. If this was a repeat test, and you'd like to consider testosterone replacement therapy (by patch, gel, or shot) please arrange an appointment.

Thyroid Function Tests. TSH (thyroid stimulating test) is a hormone from the pituitary gland that "see-saws" with the THYROID HORMONES (such as T4 and T3) when the thyroid gland is under or over active. When the TSH goes up, usually the T4 and/or T3 go down (or are going down), and vice-versa.

Urine microalbumin

Urine microalbumin is measured on patients with diabetes and is elevated in the presence of even mild kidney damage.

Vitamin B12. If low, may indicate low intake or difficulty absorbing this important vitamin. If it is borderline low, we'll recommend an oral supplement of 1000 mcg (1mg) daily and then we'll check this again after several months. If markedly low, we'll begin injections, which we'll discuss at an appointment.

Vitamin D: A minimum level of 20-30 is needed in order to normally absorb and utilize calcium. Low levels are common due to poor absorption by many, and sun avoidance, and we've found that many people need additional supplementation. Sometimes to "jump start" we'll recommend Vitamin D prescription capsule 50,000 units once weekly for 3 months. Usual daily recommendations have changed, and are usually 2000 IU daily in "darker" months, and 1000 IU daily in "lighter" months.

X-ray reports:

Vertebrae: X-rays often show degenerative disc disease or osteoarthritis. In most cases this is nothing unusual or worrisome, but certainly sufficient to cause some pinching of nerve and muscle spasming either in the neck, upper or lower back.

Other joints: Often x-rays show a bit of wear and tear. The words often used for this are degenerative changes, or osteoarthritis.