COMMON LABORATORY TESTS

WBC
- ☆ White Blood Cell Count
- ☆ High with bacterial infections
- ☆ Low with viral infections
- ☆ Chronic low/high counts may indicate a chronic disease like leukemia

RBC, HGB, HCT
- ☆ Red Blood Cell Count, Hemoglobin, Hematocrit
- ☆ Low levels indicate anemia

MCH, MCV, MCHC
- ☆ Red Blood Cell Indices
- ☆ Help determine causes of anemia
- ☆ High results indicate vitamin deficiency
- ☆ Low results indicate iron deficiency or blood loss

PLATELETS
- ☆ Blood Clotting
- ☆ Can be increased or decreased with infection
- ☆ Counts <100 should be investigated

BUN, CREATININE
- ☆ Kidney Function Tests
- ☆ Kidneys may not be functioning properly when levels are high
- ☆ Elevated BUN can result from inadequate fluid intake

SODIUM, POTASSIUM, CHLORIDE
- ☆ Electrolytes
- ☆ Important for muscle contraction and nerve impulse conduction
- ☆ Certain kidney problems and medications (diuretics) can cause an imbalance
- ☆ Low potassium can cause muscle cramps, fatigue and heart arrhythmias
- ☆ Potassium can be falsely elevated if red blood cells break open when blood is drawn or transported

PHOSPHORUS, CALCIUM, URIC ACID
- ☆ Bone Profile
- ☆ High uric acid levels can be associated with gouty arthritis or kidney stones
- ☆ High calcium levels can be associated with disorders of the parathyroid

TOTAL PROTEIN, ALBUMIN, GLOBULIN
- ☆ Proteins made by the liver
- ☆ Indicators of liver function and general nutritional status

TOTAL CHOLESTEROL
- ☆ < 200 recommended
- ☆ Lowered by losing weight, exercising and eating a low fat/low cholesterol diet with plenty of fiber

TRIGLYCERIDES
- ☆ < 150 recommended
- ☆ Cause cholesterol to stick to blood vessel walls
- ☆ Can be artificially elevated by increased blood sugar levels
- ☆ Can be lowered by decreasing fat and carbohydrate consumption, increasing exercise and medications like Tricor and Antara

HDL
- ☆ Good cholesterol
- ☆ > 40 recommended for men and > 50 recommended for women
- ☆ Protects against heart disease by picking up cholesterol deposits in the arteries
- ☆ Increased with exercise, weight loss, smoking cessation and medications like Niaspan

LDL
- ☆ Bad cholesterol
- ☆ < 100 recommended (< 70 recommended for diabetics)
- ☆ Lays down deposits in the arteries that cause heart disease
- ☆ Reduced by weight loss, exercise, eating a low fat/low cholesterol diet and medications like Vytorin, Lipitor, Crestor and Pravachol

GLUCOSE
- ☆ Blood sugar
- ☆ High fasting levels may indicate diabetes (a fasting blood sugar greater than 127 is diagnostic for diabetes)

SGOT, SGPT, TOTAL BILIRUBIN
- ☆ Liver function tests
- ☆ When tests are elevated the liver should always be evaluated
- ☆ The most common causes of increased liver function tests are medications or drugs like alcohol, Tylenol, birth control pills, other over-the-counter pain relievers, etc.
- ☆ Different types of Hepatitis can cause elevated liver function tests

IRON
- ☆ Low iron can lead to anemia
- ☆ High levels may indicate a disorder where too much iron is absorbed in the intestine. (too much iron can be toxic)

CPK
- ☆ Released with muscle turnover
- ☆ Increased with any type of muscle damage such as trauma, exercise, drugs, heart attack, etc.
- ☆ Although rare, cholesterol lowering medications may cause muscle damage which dramatically elevates the CPK and may develop into a life threatening condition
- ☆ If you are taking medications for cholesterol and you have muscle pain or weakness and your CPK is dramatically elevated, notify your family physician immediately!

T4
- ☆ Thyroid hormone
- ☆ An under-active thyroid will produce low levels; an over-active thyroid will produce high levels
- ☆ Other hormones like birth control pills and estrogen can affect T4 levels

TSH
- ☆ Thyroid stimulating hormone
- ☆ Opposite of the thyroid hormone
    - When TSH is low, there is too much thyroid hormone in the blood
    - When TSH is high, there is not enough thyroid hormone in the blood