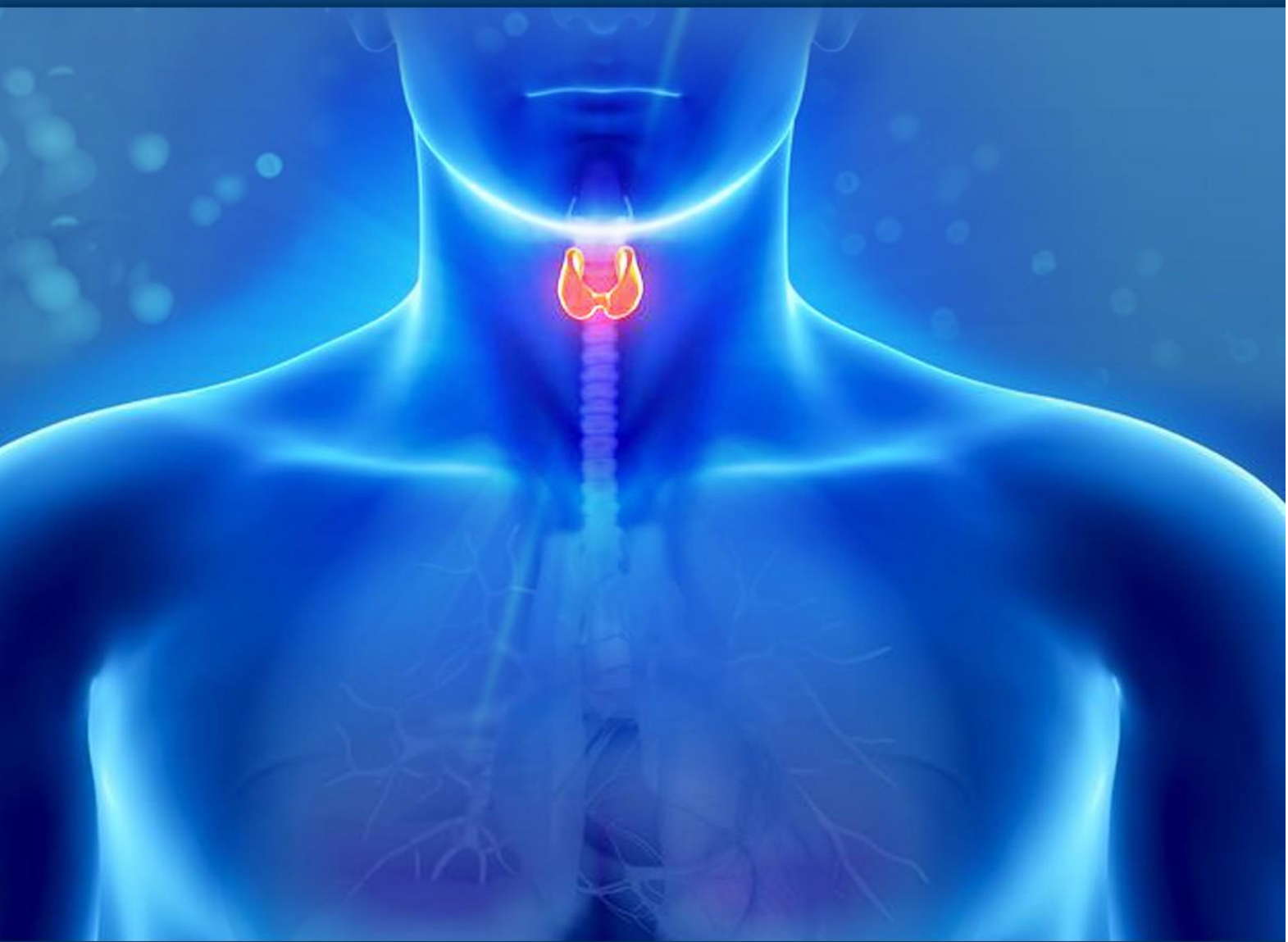
Doctor's Guide To End Your THYROID PROBLEMS

by **Dr. Tom Sladic DC, CNS**



Complete Guide to Thyroid Blood Testing

I often get asked .. What tests do I need? Why did my Doctor not order these tests?

I've just suppplied you with a complete list of the tests you need with an explanation of what they mean if high or low. The main reason your Doctor doesn't run these tests is that it simply will not change his or her treatment. I notice that only 15-20% of patients actually feel better when they start Thyroid Hormone replacement .

Sadly, the majority of thyroid pateints continue to struggle while they are told everything is normal. The standard of care today is to get the tsh in normal range (With most of the time synthroid) and you're fixed. Unfortunately, this approach is not working. Understanding the shifts in Blood chemistry is the start of getting to understand what's causing your problem.

If you need help intepreting your numbers or need access to testing I offer some solutions at the end of the report.

I have listed some blood tests which include functional ranges (optimal ranges). This is the range you want for optimal function and ideal health. Some of the ranges might be narrower than what is listed on your lab tests (the 'reference range'). However, it is a way to pick up shifts in health that might lead to diseases - allowing us to catch a problem before it manifests as a disease. I have listed many of the tests that I use. So, to be clear, the ranges I include below are **functional ranges** for optimal health. The labs use broader reference ranges to identify the disease.

If you are outside of the lab's reference range, you should consult with a Medical Doctor.

Below is a complete list of thyroid tests along with a description:

1. **TSH [1.8-3.0]** – TSH is secreted by the pituitary gland. If the thyroid is not making enough thyroid hormone, the pituitary will pump extra TSH (thyroid stimulating hormone) to attempt to increase production. This is one of the tests commonly looked at by the conventional health care model and is primarily used to evaluate the need for and effectiveness of thyroid hormone replacement.

   A high TSH is indicative of hypothyroidism (low thyroid production).

   A low TSH is indicative of hyperthyroidism (low meaning below 0.5) – which may be Graves's disease. If so, you would also see T4 and T3 levels high. In such a case, an antibody test for Graves is needed (TSI antibody).

   A TSH between 0.5 and 1.8 without being on medication is indicative of a problem with the pituitary. If a patient is on medication and is having heart palpitations, then the patient might be overmedicated.

   The TSH does not consider thyroid metabolism, autoimmune disease or thyroid pituitary feedback loops. Many patients have a normal TSH and feel horrible. TSH alone will not to get to the cause of the problem.

2. **Total T4 [6—12 mcg./dl.]** - T4 is produced by the thyroid gland and total T4 is a measure of T4 that is bound by proteins and unbound by proteins. This number does not tell us how active T4 is. T3 uptake is used to indicate how much hormone is entering the cell.

   Low- would lead us to consider hypothyroidism
   High- would lead us to consider hyperthyroidism

3. **Total T3 [100-190 ng./dl.]** - T3 is the most active thyroid hormone and is produced mainly from the conversion of T4 to T3 in the body. The thyroid gland produces 93% T4 and 7% T3.

   Low- would lead us to consider hypothyroidism
   High- would lead us to consider hyperthyroidism

4. **Free T4 [1.0-1.5 ng./dl.]** - Measures T4 that is not bound by protein and is more available for tissue receptors. Hereditary thyroid resistance can cause increased Free T4.

   Low- would lead us to consider hypothyroidism
   High- would lead us to consider hyperthyroidism

5. **Free T3 [3.0-4.0 pg./ml.]** - Measures T3 that is not bound by protein and is most available to the thyroid receptor sites.

   Low- would lead us to consider hypothyroidism
   High- would lead us to consider hyperthyroidism

6. **T3 Uptake [28-35%]** - Measures the amount of open receptor sites for T3. A low value means there are not many sites available. A high value means that there are plenty of open sites available. High levels of testosterone can decrease the number of sites and high levels of estrogen can increase the number of sites. This test is an indirect way to determine if hormones are affecting thyroid function.

   Low- would lead us to consider hypothyroidism
   High- would lead us to consider hyperthyroidism

7. **Reverse T3 [90-350 pg./ml.]** – Is produced in the liver. The liver will convert T4 to T3 or reverse T3. You should have a healthy balance. Some schools of thought suggest using a ratio of reverse T3 to Total T3. Divide Total T3 by Reverse T3. That value should be 10 or greater for healthy thyroid function.

8. **Thyroid Binding Globulin [18-27 ug./dl.] (TBG)** – measures the amount of protein available to transport thyroid hormone to the cells. Elevated testosterone or estrogen levels can influence the amount of TBG available producing hypothyroid symptoms.

9. **Thyroid Antibodies** - If you have any symptoms of thyroid dysfunction, it is wise to screen for autoimmune disease or activity. I have consulted with patients that had completely normal thyroid lab values and tested positive for antibodies against the thyroid. This test will tell you if your immune system is attacking the thyroid (most commonly known as Hashimoto's disease). There are two tests to check: TPOab Thyroid Peroxidase and Thyroglobulin ab TGBab (for Hashimoto's). TSIab thyroid stimulating immunoglobulin antibody is used to test for Grave's Disease (hyperthyroid).

   Normal result: no antibodies produced.

The above tests are needed to appropriately evaluate thyroid function. The goal would be to achieve normal functional values. Below I have supplied a list of other blood tests and values that I use in evaluating patients. These tests give me a complete starting point in evaluating the health status of a patient.

Test	Functional Range	Result	High/Low	Weakness/Possibilities
GLUCOSE	85 – 100 mg/dL		Normal High Low	**The body's chief source of energy. It affects all organs, systems and tissues. High levels of blood sugar are inflam-matory. This is a precursor to heart disease.** o Hyperglycemic tendency toward diabetes, lack of exercise, low thiamine, questionable diet. o Hypoglycemia, hypothyroidism, excessive insulin output, protein malnutrition.
URIC ACID	Male: 3.7 – 6.0 mg/dL Female: 3.2 – 5.5 mg/dL		Normal High Low	**End product of protein utilization. Meat, wine (especially liver, kidneys), shellfish and beans are high in uric acid.** o Gout, arteriosclerosis., rheumatoid arthritis, Kidney problems o Low B12, incomplete protein digestion, acidic pH, low in zinc and niacin.; copper deficiency

Test	Functional Range	Result	High/Low	Weakness/Possibilities
BUN	13 – 18 mg/dL		Normal High Low	**Reveals the degree of toxicity of protein to the kidneys. Too much urea production by liver or not cleared by kidneys** o Renal problems, dehydration, hypochlorydria (lack of stomach acid), high protein diet, stress, liver, thyroid, parathyroid imbalance, kidney obstruction (e.g., stones), low Vitamin A, C and/or E, potassium, abnormal blood loss o Pregnancy, liver dysfunction, low protein or protein malnutrition, heavy smoking, tendency toward diabetes.
CREATININE	0.7 – 1.1 mg/dL		Normal High Low	**Relates to muscle activity and renal functioning. Kidneys clear creatinine.** o Dehydration, kidney problems, prostate enlargement indicates muscle breakdown to supply protein, high ingestion of meats, supplementation of creatine can cause high levels (It does not mean creatine is bad. Kidneys are just doing their job); check BUN also and liver AST and ALT o Pregnancy, bone growth, overstress to kidney (heavy coffee, tea, alcohol), too much Vitamin C compulsive exercise.

Test	Functional Range	Result	High/Low	Weakness/Possibilities
SODIUM **Electrolyte formula**	135 – 140 mmol/L 9-18 optimal		Normal High Low	**Essential to acid-base balance and intra/extracellular fluid exchanges for normal body water distribution.** o Renal problems, water softeners, high sodium-salt diet, low water intake, relates to toxins, headaches, weak back muscles, low potassium levels, fluid imbalance and lack of physical activity. High adrenal function o Low adrenal function, low salt diet, lack of trace minerals, loss of fluids & loss of sodium in diarrhea or vomit. (Sodium) – (CL + CO2) = 9-18 optimal
POTASSIUM	4.0 – 4.5 mmol/L		Normal High Low	**Essential to heart & kidney function and the maintenance of pH of both blood & urine. It maintains regular heart rate and muscle force, thus helps to prevent heart and general muscle fatigue.** o Low adrenal, dehydration, low kidney function, overuse of potassium supplements, relates to congestive heart failure and renal failure, low vitamin E, insufficient exercise and deep breathing o Tissue destruction, high adrenal, renal problems, diabetes, tendency toward weak heart, alcohol related, folic acid deficiency, low fluid intake, low potassium intake, low vegetable and fruit intake; diuretics

Test	Functional Range	Result	High/Low	Weakness/Possibilities
CHLORIDE (CL)	100 – 106 mmol/L		Normal High Low	**Indicates kidney, bladder, and bowel function. Essential for electrolyte balance and pH maintenance.** o High adrenal, excess salt, renal dysfunction, high salt intake, severe dehydration, could relate to bowel dysfunction, insufficient green vegetables, liver malfunction, magnesium deficiency o Low adrenal, low renal function, B12 deficiency, susceptible to infections, tendency toward colitis, bladder dysfunction.
CARBON DIOXIDE (CO2)	25 -30 mmol/L		Normal High Low	**Bicarbonate is a vital component of controlling the pH of the body. Regulated by the kidneys.** o Alkalosis most commonly seen with lung disease or emphysema o Acidosis can result in serious illness or kidney disease
ANION GAP	7 – 12 mmol/L		Normal High Low	**Helps differentiate the causes of metabolic acidosis.** o Low thiamine (B1), metabolic acidosis, kidneys o Very rare

Test	Functional Range	Result	High/Low	Weakness/Possibilities
CALCIUM	9.2 – 10.1 mg/dL9.7		Normal High Low	**The majority of calcium is stored in the bone (98-99%). This is not a measure of stored calcium. The body uses the stored calcium to draw into circulation which is measured here. Calcium in the blood is used for cardiac regularity, muscle relaxation & contraction, blood clotting, transmission of nerve impulses.** o Parathyroid hyper-function, thyroid hypo-function, excess Vitamin D use, bone disorders, possibility of calcium not being absorbed, lack of exercise or possible thyroid/parathyroid gland malfunction. o Pregnancy, osteoporosis, low thyroid/parathyroid gland malfunction. Malnutrition, Vitamin D deficiency
PHOSPHORUS	3.5 – 4.0 mg/dL		Normal High Low	**Critical constituent of all the body's tissues. Majority is stored in bone. Inversely related to calcium** o Parathyroid hypo. function, bone fracture, kids' bone growth, renal dysfunction o Parathyroid hyper function, hypochlorhydria (lack of stomach acid), low protein, blood sugar problems, Vitamin D deficiency

MAGNESIUM	2.0 – 2.5 mg/dL		Normal High Low	**Critical to smooth muscle function, including heart, gastrointestinal tract and uterus; helps regulate acid-alkaline (base) balance in the body. Aids in absorption and metabolism of minerals such as calcium, phosphorus, sodium, and potassium; also utilization of Vitamin B complex, C and E. Regulates body temperature.** **If the magnesium is found intra-cellularly, this is not the best method for assessing magnesium. **Run the red blood cell magnesium for more accurate assessment of magnesium**** o Kidney dysfunction, low thyroid, infection o Supplement use, malnutrition, alcoholism, and excessive use of diuretics.
TOTAL PROTEIN	6.9 – 7.4 G/dL		Normal High Low	**Screen for digestive problems, dehydration.** o Need HCl, amino acids and protein (indicates incomplete assimilation or non-use of protein) dehydration or loss of fluid. o Need HCl, amino acids, protein (incomplete protein digestion), poor nutrition, liver dysfunction.
ALBUMIN	4.0 – 5.0 G/dL		Normal High Low	**A major protein in the blood that transports hormones and drugs. Dehydration, protein gram overload or absorption, hypothyroidism.** o Starvation/malnutrition, edema, liver/kidney problems, Vitamin C deficiency, hyperthyroidism o Heavy aspirin use, liver, bile, decreased immune function

GLOBULIN	2.4 – 2.8 2.5 G/dL		Normal High Low	**Essential to the antibody-antigen response; needed to fight infections; important in blood clotting. Valuable in assessing degenerative and infectious processes.** o Hypochlorhydria (lack of stomach acid), allergy, a sign of arthritis o Digestive dysfunction, immune system deficiency, liver disease, inflammation, infection related
A/G RATIO	1.5 – 2.0 Units		Normal High Low	**Relates to the body's defense mechanism; associated with the liver.** o Usually due to dehydration; not enough water before the test o Liver dysfunction, Immune system activation.
TOTAL BILIRUBIN	0.2 – 1.2 mg/dL		Normal High Low	**Bilirubin is the end product of hemoglobin breakdown from red blood cells in the spleen and bone marrow. It is transported to the liver and then the gallbladder where it is eventually excreted. Two types: direct and indirect. High levels of indirect are usually associated with increased cell destruction. High levels of direct are associated with liver or gallbladder problems.** o Fat malabsorption & increased risk of cardiovascular disease, possible lymphatic problems, Vitamin C deficiency; potential liver disease or jaundice. Spleen Dysfunction o Spleen insufficiency, iron deficiency, anemia, Vitamins B-12 and C and copper deficiency

ALK. PHOSPHATASE	70 – 90 U/L		Normal High Low	**Indicates how the liver is utilizing protein and fats, and pH balance (an enzyme found essentially in bone & liver)** o Bone growth, liver dysfunction, gastric inflammation, tendency towards arthritis, insufficient calcium/phosphorus could relate to certain medications, bile duct obstruction, or alcohol related. o Protein malnutrition, Vitamin C, folic acid and zinc deficiency; possible hypoglycemia
LDH	140 – 180 U/L		Normal High Low	**LDH is a catalyst for the conversion of pyruvic acid to lactic acid during cellular energy production** o Liver problems, cardiac stress, diabetic tendency, strenuous exercise, alcohol related, present in myocardial infarction & pulmonary conditions o Reactive hypoglycemia, possible edema and fatigue.
AST (SGOT)	10 – 26 U/L		Normal High Low	**Relates to liver enzyme activity, kidney & skeletal muscle** o Liver complications, heart or muscle problems o Low B6 levels and magnesium deficiency
ALT (SGPT)	10 – 26 U/L		Normal High Low	**An enzyme associated with the liver, heart and skeletal muscle.** o Liver dysfunction, alcohol and drug related, Vitamins A and C deficiency o Low B6 levels, alcohol

GGTP	10 – 26 U/L		Normal High Low	**An excellent indicator of liver damage or biliary obstruction of bile ducts outside the liver** o Alcoholism, bile obstruction, viral hepatitis o Low B6 levels and copper, hypothyroid, low magnesium
IRON SERUM	85 – 130 mcg/dL		Normal High Low	**Critical to red blood cells' ability to carry oxygen & remove carbon dioxide; helps to remove toxin residue from cells.** o Hemochromatosis is a hereditary disorder (excess absorption of iron), liver problems. Increase iron intake (supplements), iron cookware, drinking water o Iron deficiency, internal or external bleeding.
FERRITIN	Male: 33—236 Female: 10—122 Post menopausal: 33- 263		Normal High Low	**The most sensitive test to detect iron deficiency. Main storage form of iron in the body** o Hemochromatosis (excess absorption of iron), inflammation, excess iron consumption o Iron- deficiency anemia
TIBC	250-350 ul/dl		Normal High Low	**Total iron binding capacity. Measures the blood's capacity to bind iron** o Iron deficiency o Hemochromatosis (excess absorption of iron)

HEMOGLOBIN A1C	4.8--5.6 5.7—6.4 >6.4		Normal High Higher	**Measures blood glucose that has attached itself to protein (albumin). This test more accurately measures glucose levels over the two-three weeks prior to the blood test** o Increased risk for diabetes o Diabetes
CHOLESTEROL	150 – 200 mg/dL		Normal High Low	**Cholesterol is found in every cell of the body. Used to make hormones, enzymes, antibodies & all cells. It is manufactured in the liver. Cannot function without it.** o Hypothyroidism, early stage of diabetes, low thiamine, excessive dietary fats (hydrogenated oils), lack of Vitamins A, C, D, E, stress, smoking, insufficient exercise o Hyperthyroidism, protein malnutrition, alcoholism, carbs, cholesterol medication. It is not wise to have levels below 150.

Triglycerides/ HDL Ratio*	Divide ratio	2	High	**Increased risk of heart disease - goal is 2. For example, Triglycerides 100/HDL 50 = 2. The goal is a ratio of 2, an excellent marker for heart disease.**
TRIGLY-CERIDES	75 – 100 mg/dL		Normal	**Are major building blocks of very low density lipoproteins (VLDL) and play an important role in metabolism as energy sources and transporters of dietary fat**
			High	o Blood sugar problems, sugar & saturated fat eaters, stress related, increased risk of heart and small vessel diseases, poor exercise habits
			Low	o Autoimmune disease, nerves & stress related, protein malnutrition, excessive use of bran & niacin, low unsaturated fatty acids
HDL "GOOD" CHOLESTEROL	>55 mg/dl-- <80 mg/dl		Normal	**The "good" cholesterol; it carries cholesterol away from your arteries to your liver.**
			High	o Autoimmune conditions, inflammation, chronic liver disease
			Low	o Associated with angina pectoris and myocardial infarction, diabetes mellitus, lack of exercise, obesity, smoking, hypertension, and incomplete diet.
LDL CHOLESTEROL	Less than 120 mg/dl		Normal	**The "bad" cholesterol, responsible for plaque build-up in the arteries.**
			High	o Blood sugar problems, sugar & saturated fat eaters, stress related, increase risk of heart and small vessel diseases, poor exercise habits

CHOL/HDL RATIO	Less than 3.1		Normal High	**It is the ratio between these substances that identify your risk of having heart problems. The lower the ratio, the safer you are.** o Increased risk of having heart problems. **However, the Triglyceride/HDL ratio is best**.
TSH	1.8 – 3.0 ulU/ml		Normal High Low	**TSH stimulates the thyroid gland to secrete additional T4** o Hypothyroid symptoms o Hyperthyroid symptoms (if less than 0.5)
FT3	3.0 – 4.0 pg/ml		Normal High Low	**This test measures the free or active T3 hormone (unbound) levels, which is the actual hormones that culminates In an increase in metabolism and energy** o Hyperthyroid symptoms o Hypothyroid symptoms
FT4	1.0 – 1.5 2.0 ng/dl		Normal High Low	**The measure of active T4 in the blood but, must be converted to T3 to impact metabolism** o Hyperthyroid symptoms o Hypothyroid symptoms
T4, TOTAL	6—12 mcg/dl		Normal High Low	**Reflects the total output of the thyroid gland and actual T4 hormone released** o Hyperthyroid symptoms o Hypothyroid symptoms
T3, TOTAL	60-180 ng/dl 0.6-1.81 ng/ml		Normal High Low	**T3 is the most active thyroid hormone which is largely protein–bound but not necessarily available for metabolic activity** o Hyperthyroid symptoms o Hypothyroid symptoms

REVERSE T3	25-30 ng/dl		Normal High Low	**Your body, especially the liver, can constantly be converting T4 to RT3 as a way to get rid of any unneeded T4** o Hypothyroidism symptoms o Hypothyroid symptoms
T3 UPTAKE	28 -38 mg/dL		Normal High Low	**Indirect measurement of unsaturated binding sites on the thyroid binding proteins** o Hyperthyroid symptoms o Hypothyroid symptoms
TPO AB	Above lab range 0-34		Normal	**Check in cases of autoimmune thyroid disorders**
TGB AB	Above lab range 0-40		Normal	**Check in cases of autoimmune thyroid disorders**
TH. BIND GLOB	18-27		Normal	**This test measures the amount of proteins in the blood that transport thyroid hormones to the cells. Inherited thyroxine-binding globulin deficiency is a genetic condition that typically does not cause any health problems.**
FTI (Free Thyroxine Index)	1.2-4.9 mg/dL		Normal High Low	**The amount of unbound, physiologically active thyroxine (T4) in serum** o Hyperthyroidism o Hypothyroid, low levels of selenium
WBC	5.0 – 8.0		Normal High Low	**Fight infection, immune system, found in bone marrow. Protects body against infection and inflammation** o Acute stressed/compromised immune system, infection o Chronic stressed/compromised immune system, infection

RBC	Female: 3.9 – 4.4 Male: 4.2 – 4.9		Normal High Low	**Erythrocytes; relates to anemia. Red blood cells carry oxygen to the cells & carbon dioxide back to the lungs** o Dehydration, Polycythemia (a blood disorder in which your bone marrow makes too many red blood cells), altitude sickness, emphysema o Anemias, iron deficiency, B12 needs, menses, Internal or external bleeding
HEMOGLOBIN	Female: 13.5 – 14.5 Male: 14 - 15		Normal High Low	**The oxygen carrying molecule in red blood cells** o Dehydration, Polycythemia (a blood disorder in which your bone marrow makes too many red blood cells), altitude sickness, emphysema o Menses or iron deficiency anemia, B6, B12 , bleeding or loss of blood
HEMATOCRIT	Female: 37 – 44 Male: 40 - 48		Normal High Low	**Percentage of red blood cells to whole blood (plasma). Relates to abnormal state of hydration, also the spleen denoting the amount of blood cell breakdown.** o Dehydration, Polycythemia (a blood disorder in which your bone marrow makes too many red blood cells), altitude sickness, emphysema o Low Vitamin B12/Folic Acid, C, B1, B6, anemia, protein deficiency, improper diet, ulcerations, menses or iron deficiency anemias, bleeding or loss of blood
MCV	85 – 92 cu icrons		Normal High Low	**Average volume of many cells.** o Anemia - B12/ Folic acid deficiency o Iron deficiency, low B6, loss of blood

MCH	27 – 32 cu icrons		Normal High Low	**A hemoglobin-RBC ratio, gives the weight of hemoglobin in an average red cell. Relates to iron anemia** o Anemia - B12/ Folic acid deficiency o Anemia - Low B6, iron deficiency; need Vitamin C, internal bleeding
MCHC	32 – 35%		Normal High Low	**The volume of hemoglobin in an average red cell. Helps distinguish normal colored red cells from:** o Anemia - B12/ Folic acid deficiency o Anemia - Low B6, iron deficiency, Need Vitamin C, internal bleeding
RD	Less than 13		Normal High	**Indicator of red blood cell size.** o B12/Folate anemia and iron anemia
PLATELETS	50,000 – 450,000		Normal High Low	**Cells in blood that form clots.** o Polycethemia, free radical pathways, infection disorders o Leukemia, immune dysfunction
NEUTROPHILS	40 – 60%		Normal High Low	**This is a type of white blood cell. Amount of infection fighting capacity. The "good guys"** o Immune compromise, infections and poisonings, possible bacterial infection, excessive amount of foreign protein due to undigested protein and muscle breakdown. o Low immune, free radical pathways, deficient Vitamins A, B-6, B-12, folic acid, iron, and copper; toxin

LYMPHOCYTES	25 – 40%		Normal High Low	**This is a type of white blood cell. Aids in the destruction and handling of body toxins & by-products of protein metabolism. Relates to the healing process** o Stressed immune system, possible viral infection, hepatitis, fever, infection. o Low immune, free radical pathways
MONOCYTES	Less than 7%		Normal High	**This is a type of white blood cell. Formed in the spleen and bone marrow, they can ingest and digest large bacteria. Relates to normal tissue breakdown by the liver** o Inflammation, infection, parasites, BPH, possible viral infection, possible arthritis, stress and insufficient liquids.
EOSINOPHILS If Monocytes are above 7 and Eosinophils are above 3, check for parasites	Less than 3%		Normal High	**This is a type of white blood cell. Responsible for the protection and preservation of life via the immunologic response. Relates to infections, inflammations, diseases and allergies** o Parasites, allergy, food allergies, intestinal infection, skin disease.
BASOPHILS	0 – 1%		Normal High	**This is a type of white blood cell. Involved in deep membrane allergies. Relates to the immune response, inflammation, and Gastrointestinal tract** o Parasites, inflammation, possible allergies, hyperthyroidism, stress, blood complications E and C, blood clotting.

CRP (cardio) C-reactive protein	<2.0			**Patients with levels of CRP are at an increased risk of diabetes, hypertension and cardiovascular disease. This is a marker for inflammation. Patients with active autoimmune disease can have high numbers. *****Be sure to get this below 2.*** **Use supplements that decrease inflammation** o Lower relative cardiovascular risk
	2.0—3.0			o Average relative cardiovascular risk
	3.1—10.0			o Higher relative cardiovascular risk *High Inflammation
Erythrocyte sedimentation rate.	Males: 0-15 Females: 0-20		High	**Marker of non-specific tissue inflammation or destruction** o Indication of a disease process going on.
VAP cholesterol analysis	Goal is to have large particle size			**This is the best way to determine the particle distribution of cholesterol. If you are worried about your cholesterol levels, this is the test to have**
Insulin Fasting	Goal is less than 10 IU/ml			**Provides a view as to how the body manages blood sugar. High levels of insulin are inflammatory contributing to heart disease.**

Vitamin D3 25-Hydroxy	50-100 ng/ml SUFFICIENT; ***Must be in this range if you have an autoimmune disease*** 10-30 Insufficiency <10 ng/ml Deficient		Normal Low	**Use to diagnose Vitamin D deficiency and monitor response to Vitamin D therapy. Controls the level of phosphate and calcium in blood; regulates bone health; **modulates the immune system**; regulates neuromuscular functions; plays a vital role in cardiovascular functions; balances blood sugar level and insulin production; promotes normal cellular growth** ○ Fatigue, general muscle pain and weakness, muscle cramps, joint pain, chronic pain, mood swings and depression, weight gain, high blood pressure, restless sleep, poor concentration, headaches, bladder problems, constipation or diarrhea and weak immune system; rickets in children.
Homocysteine	<7 <7 is the goal		Normal	**Homocysteine is an amino acid in the blood. Is another marker to monitor inflammation along with CRP. I use B vitamins to help correct.** ○ Too much of it is related to a higher risk of coronary heart disease, stroke or vascular disease (fatty deposits in peripheral arteries) **Higher levels of homocysteine can cause thyroid resistance; inability for T3 to get into the cell.**
Fibrinogen	Below 350		High	**Increased risk of atherosclerotic disease (plaque buildup in arteries); heart attack or stroke risk.**

** This chart is a guide for nutritional support information and to reinforce systemic and metabolic heath and is not intended as a diagnosis or treatment for any symptoms, conditions or disease.

How would you like to work with someone that has access to all the tests you need and has the experience of working with hundreds of people just like you. Wouldn't it be nice if you could find someone that has some answers for you?

If You're Frustrated with being told that your lab tests are normal as your health continues to spiral downward then it's time to take the next step.

Check out this YouTube video → https://youtu.be/Iz3xz8je3jk

If you are ready to work with someone who gets it… it starts with a case review.

During this time I will ask in depth questions to trace back to the origins of your problem and see which steps are needed to start making changes in your current situation. I will review any records you have and answer all of your questions.

The case review can be scheduled over the phone or at my office whichever works best for you.

SCHEDULE CASE REVIEW HERE

This Case Review includes:

- Comprehensive assessment of your condition/health questions
- Discuss potential causes of your diagnosed or currently undiagnosed condition
- Review of extensive questionnaire to help determine underlying causes of your symptoms
- Help you understand and interpret your laboratory tests
- Review your most current lab tests and offer advice if more in-depth testing would better assess your current health problems

- Recommend further laboratory testing (can be done by your local physician)
- Increase the effectiveness of your current treatments with recommendations of pharmaceutical grade nutraceuticals
- Review potential natural treatment options for your personal health concerns

Schedule your consultation now!

This Consultation will be scheduled with Dr. Sladic at a rate of **$197**

There is no Medicare or insurance reimbursement for this service.

We cannot prescribe medications or treat you during this consultation.