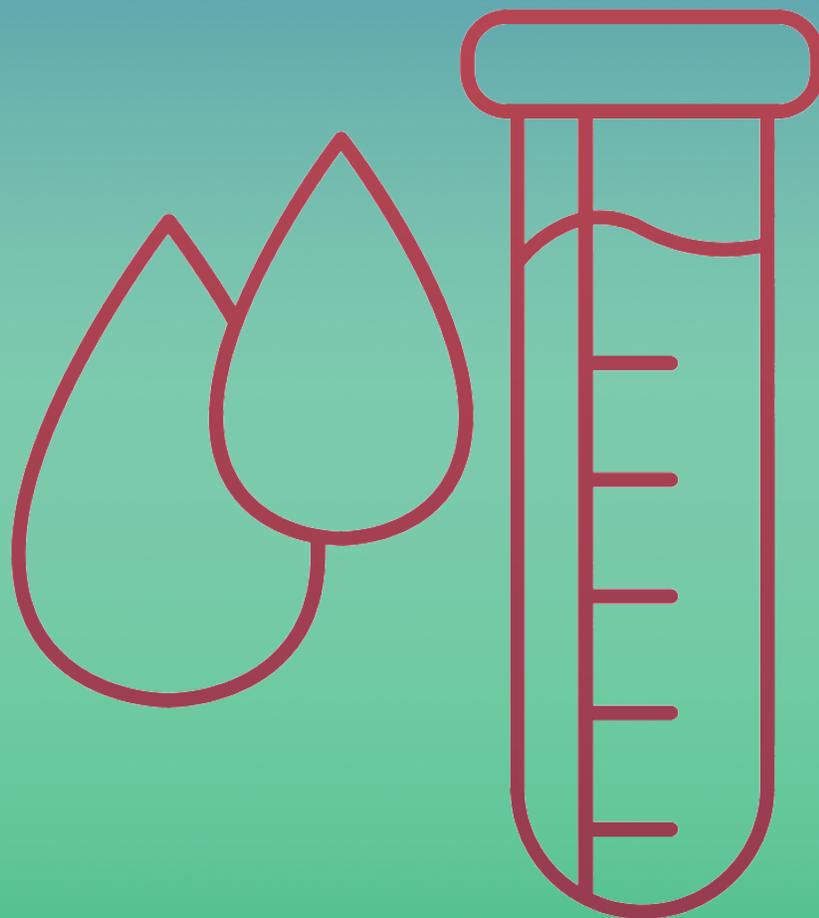


Know Your Numbers



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This guide is a handy references for the most important blood tests that enable you to understand your risk (or your client's risk) for developing diabetes and/or risks for complications from pre-diabetes and diabetes. Your baseline test results are also very important for measuring your progress as you take the journey to diabetes reversal.

If you want a reference with evidence-based optimal levels for these tests (as well as biometrics that indicate your health risk), download this free assessment tool [RIGHT HERE](http://bit.ly/minihealthscore) - <http://bit.ly/minihealthscore> . You will notice that “optimal” levels are not necessarily the same as lab “normals”. So this tool is can be very helpful.

This guide will also serve as a great reminder to ask for tests you want and need to have (some are not routinely ordered by most care providers). If you have clients with metabolic syndrome, pre-diabetes, or diabetes, these tests can help you get a real handle on the probability they have of completely reversing their condition.

If there are tests that you haven't had run yet and you don't want to wait weeks for a doctor's appointment to get them ordered, there are online options where you can order and pay for most of these tests, and just take the requisition to a local Quest lab. They do not require a doctor's order. Several sources for online lab test ordering are included in the assessment tool referenced above.

In the table below you will find the different tests, common abbreviations, and a little guide to understanding the importance of the test as well as other information that will be helpful to you in evaluating your test results. It is always recommended that you discuss your lab results with your care provider and make your plan of care together.

Test Name	Abbreviation	What you need to know about it
Fasting blood sugar/glucose	FBS	This measures the amount of sugar circulating in your blood after a 10 hour fast or more. This is usually the lowest levels you have of blood sugar (if you aren't taking insulin or other medications for blood sugar). This is a baseline number and you compare other blood sugar measurements to this number. Has to be tested when you have not eaten or drunk anything besides water for about 10 hours (overnight usually).

Test Name	Abbreviation	What you need to know about it
Hemoglobin A1c	Hgb A1c	This measures the amount of sugar that has accumulated on your red blood cells, called glycation. It is a direct measure of the AVERAGE blood sugar you have been running (blood sugars vary throughout the day and week depending on many factors such as what you eat, when you eat, and how much you move) Because your red blood cells have about a 3 month lifespan, this number gives you an average blood sugar reading over the last three months. Everyone, diabetic or not, should know this number as it is one of the earliest indicators of pre diabetes. It should be checked at least every year if you are healthy, and at least every 3 months if the number is higher than optimal. This is also how you monitor blood sugar control over time as it will let you know if you are getting better, or worse, with your blood sugars.
Glucose Tolerance Test	GTT	This measures how well your body can handle a large load of simple sugar. If your pancreas is healthy and you don't have insulin resistance, this should be normal. Usually includes testing your blood sugar fasting, than after a sweet drink, and repeating several times every hour after that so you can see how long it takes your body to move the sugar out of the blood into the cells. This test can help to pick up early diabetes or problems with sugar metabolism.
C-peptide	C-peptide	This test measures the amount of insulin your pancreas is making (as long as you are not taking insulin). A stimulated C-peptide test that is done after a high carb meal is a good indicator of pancreatic function and can tell you something about your expectation to completely reverse Type 2 diabetes. It helps to measure how much damage has occurred to the pancreas. A level of <2 ng/mL indicates severe damage and about 5% chance of controlling blood sugars through lifestyle alone. At 2-4ng/mL, there is a 50/50 chance of doing so, and at 4+ng/mL there is a 95% chance of controlling blood sugars eventually through lifestyle alone.
Fasting Insulin		This test measures insulin levels in the blood. High levels while fasting indicate that the pancreas is being overworked and can be a sign of pre diabetes or early diabetes where blood sugars are still normal, but the pancreas is working extra hard to maintain that. This is the best time to optimize sugar metabolism and usually it can be normalized with lifestyle interventions.

Test Name	Abbreviation	What you need to know about it
Vitamin D Levels	Vit. D, 25,Hydroxy	This measures your levels of Vitamin D. Low levels are very common and increase your risk of developing diabetes and having a compromised immune system, making you more susceptible to infections. Everyone should have these levels checked at least twice a year (spring and fall) and supplement if necessary to maintain an adequate level of over 50.
Lipid Profile		This is a group of tests that look at your blood fats and are a good indicator of risk for diabetes and heart-related complications like narrowed arteries, heart attacks, and strokes. It includes the 4 tests below and sometimes a few more, but these are the most important.
High Density Lipoproteins	HDL	Often called the “healthy” kind of blood fat, you want more of this type and less of the next 3 types. One of the best ways to increase HDL is to move your body more and exercise regularly.
Low Density Lipoproteins	LDL	Often called “bad” blood fat, high levels indicate more risk for heart disease and blood vessel blockages. Can be improved with high fiber and low fat lifestyles.
Triglycerides	TG	Another kind of blood fat, this one goes up when you have a lot of simple, refined sugars in the diet, such as soft drinks, fruit juices, and other sweets. This test will be affected by your diet over the previous 36 hours or so. So numbers can vary quite a bit, depending on what you ate/drank in the previous days to the test. You want to aim for lower numbers in this test.
Cholesterol	Chol	This test measures the blood fat, cholesterol. Cholesterol comes from the diet (animal products only) as well as being produced by your liver from any fat in your diet (animal or plant sourced). Higher levels tend to be associated with more risk of heart attack and strokes. The best way to lower the levels and make sure the needed cholesterol your body get is the best quality, is to eliminate all dietary sources and allow the liver to make what you need from plant-sourced fats.
Cardiac Reactive Protein	CRP	This is a measure of inflammation in the body. The higher your inflammation levels, the higher your risk of developing all kinds of chronic illnesses such as high blood pressure, heart disease, diabetes, and many others. Inflammation can be decreased greatly through lifestyle interventions that address diet, exercise, and stress management.