LABORATORY INTEGRATED TESTING

Functional Health Report

This report on Lab Results has been specially created for: **Vanna Hopkins**

Lab Report Created by:

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Patient Name: Vanna Hopkins **Date:** August 25 2020 09:02:08

Lab Test Results

The Blood Test Results Report lists the results of the patient's Chemistry Screen and CBC and shows you whether or not an individual element is outside of the optimal range and/or outside of the clinical lab range. The elements appear in the order in which they appear on the lab test form.

Clinical Low
6 Current 30 Previous

Functional Low
1 Current 22 Previous

Optimal Range
3 Current 40 Previous

Functional High
1 Current 11 Previous

Clinical High
1 Current 15 Previous

Lab Test	Current Lab Result on August 25 2020 09:02:08	Clinical Low	Functional Low	Optimal	Functional High	Clinical High	Units
Cholesterol, Total	4	0 - 99	100 - 154	155 - 159	160 - 199	200 or higher	
HDL Cholesterol	4	0 - 39	40 - 59	60 - 80	81 - 99	100 or higher	
Triglycerides	6		0 - 74	75 - 100	101 - 149	150 or higher	
LDL-Cholesterol	6	0 - 0	0 - 0	0 - 100	100 - 129	101 or higher	
CHOL/HDLC RATIO	4			0 - 2.5	2.6 - 4.9	5 or higher	
Non HDL Cholesterol	4			0 - 109	110 - 129	130 or higher	
Hemoglobin A1c	4			0 - 5.7	5.8 - 6.4	6.5 or higher	
Glucose	4	0 - 64	65 - 79	80 - 94	95 - 99	100 or higher	
UREA NITROGEN (BUN)	4	0 - 5	6 - 9	10 - 20	21 - 25	26 or higher	
Creatinine	4	0 - 0.56	0.57 - 0.74	0.75 - 0.95	0.96 - 1.35	1.36 or higher	
eGFR NON-AFR. AMERICAN	4	0 - 59	60 - 89	90 - 140			
eGFR AFRICAN AMERICAN	4	0 - 59	60 - 89	90 - 140			

Out of Optimal Range Report

The following results show all of the elements that are out of the optimal reference range. The elements that appear closest to the top of each section are those elements that are farthest from optimal and should be carefully reviewed.

Above Optimal Range
2 Total

Below Optimal Range
7 Total

High

CHOL/HDLC RATIO 4.00 (+160%)

Your result for this lab test is in the Functional High T. Cholesterol/HDL Ratio Your result for this lab test is in the FUNCTIONAL HIGH range. The Total Cholesterol/HDL Ratio simply compares the amount of Cholesterol to the amount of HDL (good cholesterol) and gives you a ratio or number. This ratio is a common way to determine your future risk of cardiovascular problems based on Cholesterol (or lipid) values. A higher ratio or number can mean an increased risk for cardiovascular problems, and a lower number can mean that you have a lower risk of cardiovascular problems.

Creatinine 4.00 (+421.05%)

Your result for this lab test is in the Clinical High Creatinine Your result for this lab test is in the CLINICAL HIGH range. Creatinine is found within muscle tissue and is released into the blood stream during muscle contraction or breakdown of muscle tissue. Since almost all Creatinine is removed by the kidneys . . . testing blood levels of Creatinine is a good measure of how well the kidneys are working. Creatinine is also relative to the amount of muscle on the body, so a person with higher muscle mass will have slightly higher Creatinine levels and a person with low muscle mass will have slightly lower levels. Creatinine is derived from Creatine which is used as a source of energy in muscle contraction and is produced mostly within in the liver. Remembering the difference between Creatinine and Creatine can be confusing because the words are so similar, so it helps to understand the sequence of events leading up to Creatinine getting released into the blood. First - Creatine is made in the liver and then transported to the muscle tissue to be used as an energy source for muscle contraction. Second - Creatinine then gets released into the blood due to muscle contraction or other conditions that result in muscle tissue breakdown. When Serum Creatinine is in the Clinical High range we must first consider if there is a problem with kidney function, and this should be correlated with other kidney function tests like BUN and GFR. High Creatinine combined with a high BUN (Blood Urea Nitrogen) and low GFR (Glomerular Filtration Rate) will create the greatest concern for altered kidney function and may require further evaluation with a specialist to determine the cause of abnormal kidney function or confirm the presence of kidney disease. High Creatinine can also be caused by other factors such as 1) dehydration, 2) extreme exercise (extreme muscle contraction) prior to getting your blood sample taken, 3) very high protein intake in diet, 4) high intake of a nutritional supplement called Creatine, 5) high Vitamin C intake, 6) any condition that results in faster breakdown or damage of muscle tissue, and 7) can be caused by some medications. It could also be that the kidneys are working fine but the flow of urine from the kidneys to the bladder and out of the body is being slowed down or obstructed due to an enlarged uterus or enlarged prostate. This would result in a back-up of Creatinine in the kidneys and then higher levels found in the blood and may require additional testing or examination to confirm.

Low

Cholesterol, Total 4.00 (-2.58%)

Your result for this lab test is in the Clinical Low Cholesterol, Total Your result for this lab test is in the CLINICAL LOW range. This test measures the total level of Cholesterol in your body. Cholesterol circulates in your blood in different fractions or particles called lipoproteins, and these particles are usually referred to as HDL, LDL and VLDL. The sum total of HDL,

LDL, and VLDL will equal your Total Cholesterol. Cholesterol is often communicated as a bad thing, and we are given the impression that we always need to get Cholesterol to a lower number to be healthy. The reality is that Cholesterol is needed to be healthy and it is essential for life. What many people don't know is that in the original research on Cholesterol completed decades ago the researchers found that not only does high Cholesterol have a negative impact on health . . . mainly to your heart and cardiovascular system, but they also found that having low Cholesterol levels has its own unique set of consequences. Specifically, those people with low Cholesterol levels have an increased risk of developing cancer or other serious health problems over time. It will help you to understand some of the functions of cholesterol within your body. Cholesterol is part of the cell membrane (the outer layer of the cell) for all the cells in your body, so Cholesterol is necessary for healthy cells. About 60% of your brain is made up of fat and Cholesterol, so having enough Cholesterol is needed for a healthy brain and nervous system. Cholesterol is a precursor of what gets converted into many of the different hormones in your body . . . including the male and female hormones and adrenal hormones, so Cholesterol is needed for healthy hormone levels. Cholesterol is even a pretty good antioxidant . . . which means that it has the ability to protect your cells from getting damaged, and when your cells do get damaged Cholesterol can come to the rescue and help repair that cell damage. About 70% - 80% of the Cholesterol in your body is manufactured from within your own body . . . mostly by your liver. The remaining Cholesterol comes from your diet. So if Cholesterol is high it's less likely due to dietary intake, and more likely because your liver is producing more Cholesterol because the body is sensing it needs more to improve the health of your cells, nervous system and hormones, or your body is in need of more antioxidants so your liver produces more Cholesterol for the antioxidant benefit it offers. It also means that if Cholesterol is too low it could indicate a person has an underactive or hypo-liver function since the liver produces the majority of cholesterol found in the body. The most reliable method for testing Cholesterol is after doing a 12 hour fasting . . . meaning there is no eating or drinking (except water) . . . for 12 hours prior to your blood draw. If the Cholesterol is high and a person did NOT do a proper 12 hour fasting . . . then this lab result is invalid and this should be re-tested if there are concerns about Cholesterol values. When the Total Cholesterol is in the Clinical Low range we will first consider if a person is on some type of Cholesterol lowering medication. If on a medication the patient may want to speak with their prescribing doctor to ask about reducing the dose or making some change to the medication . . . especially while making a serious effort to improve diet, lifestyle and using nutritional therapies to balance your body chemistry. Other factors that can contribute to a low Total Cholesterol include: 1) underactive or hypo-liver function or other problem affecting the liver, 2) overactive or hyper-thyroid function or a thyroid medication dose that is too high, 3) poor nutrition and/or very low fat intake, 4) a vegetarian or vegan diet, 5) poor absorption due to a digestive problem, or 6) overactive or hyper-adrenal function. It should be noted that a sudden drop in Total Cholesterol should alert one to some type of pathology or inflammatory condition, and this would be confirmed with other lab tests being out of range.

HDL Cholesterol 4.00 (-6.67%)

Your result for this lab test is in the Clinical Low HDL Cholesterol Your result for this lab test is in the CLINICAL LOW range. HDL refers to a form of cholesterol called High Density Lipoprotein. In order for Cholesterol to travel through your bloodstream it needs to be carried and transported by a particle called a lipoprotein, and HDL is one of these lipoprotein particles. You will often hear of this as the "good cholesterol", because these HDL particles have the ability to clean out deposits that can build-up in your arteries and HDL may prevent the build-up of plaque that can damage your blood vessels. Having your HDL levels high enough will help to protect and improve the health of your blood vessels and can be a positive factor in preventing cardiovascular problems including heart attack and stroke. The best ways we know of to naturally improve or maintain healthy levels of HDL is through regular exercise, consuming enough Omega 3 Essential Fatty Acids (EFA), maintaining healthy blood sugar levels, and keeping your body at a healthy weight. When HDL Cholesterol is in the Clinical Low range there are several factors to consider to include: 1) Omega 3 EFA deficiency, 2) blood sugar issues or insulin resistance, 3) a problem affecting the liver, 4) a diet that is too high in sugar and carbohydrates, 5) overactive or hyper-thyroid function, 6) a lifestyle that is too sedentary / too little exercise, and 7) the effect of some medications.

Triglycerides 6.00 (-8%)

Your result for this lab test is in the Functional Low Triglycerides Your result for this lab test is in the FUNCTIONAL LOW range. This test measures the total level of Triglycerides in your body. A Triglyceride is a substance that has sugar and fat combined together. The sugar and fatty acid portions of a Triglyceride are part of what your cells use as a fuel source for the energy they need to function. Triglycerides also get incorporated into your fat cells and become part of your storage of body fat. Abnormal Triglyceride levels will often reflect dietary intake of fat and carbohydrates, as well as poor blood sugar control, and can have a significant impact on cardiovascular health. The most reliable method for testing Triglycerides is after doing a 12 hour fasting . . . meaning there is no eating or drinking (except water) . . . for 12 hours prior to your blood draw. If Triglycerides are high and a person did NOT do a proper 12 hour fasting . . . then this lab result is invalid and this should be re-tested if there are concerns about Triglyceride levels. When Triglycerides are in the Functional Low range there are

several factors to consider including: 1) underactive or hypo-liver function or other problem affecting the liver, 2) overactive or hyper-thyroid function or a thyroid medication dose that is too high, 3) poor nutrition and/or very low fat intake, 4) vegetarian or vegan diet, 5) poor absorption due to a digestive problem, 6) overactive or hyper-adrenal function, 7) a possible autoimmune condition - especially when seen with a high HDL at >80, and 8) the effect of some medications.

Glucose 4.00 (-5%)

Your result for this lab test is in the Clinical Low Glucose Your result for this lab test is in the CLINICAL LOW range. Serum Glucose is a measurement to see how well your body is controlling your blood sugar levels over a shorter period of time - about the past 12 - 24 hours. Glucose is the preferred source of fuel for all the cells in your body. It is also the most important source of fuel for your brain and nervous system which has the greatest need for healthy Glucose levels because it alone consumes about 50% of the glucose in your body. Your Glucose can vary quite a bit even within the same day based on what you are eating and drinking. The most reliable method for testing Serum Glucose is after doing a 12 hour fasting meaning there is no eating or drinking (except water) for 12 hours prior to your blood draw. A Serum Glucose in the Clinical Low range is rare to see on a routine 12 hour fasting blood test. This is called a Clinical Hypoglycemia, and the result is that blood sugars levels drop so low it could strongly affect how your body is functioning and potentially become a life threatening situation. When Glucose measures in the Clinical Low range you will likely need additional testing or to see a specialist to help determine the cause.

UREA NITROGEN (BUN) 4.00 (-40%)

Your result for this lab test is in the Clinical Low BUN Your result for this lab test is in the CLINICAL LOW range. BUN (or Blood Urea Nitrogen) is one of the tests to measure kidney function. As proteins are broken down in your digestive system from your diet, your liver will process and utilize these proteins and produce a waste product called Urea. This waste product (Urea) is then removed from your blood by the kidneys. A HIGHER than optimal BUN would create a concern for kidney function, but this should first be correlated with other kidney function tests such as GFR and Creatinine. A Clinical Low BUN may create concerns for liver function because Urea is produce almost entirely within the liver, but this should first be correlated with other liver function tests to determine if there are any concerns about liver function. Because Urea is a waste product from protein digestion and metabolism . . . a low Urea may also be due to a diet that is low in protein, or a person who is not digesting or absorbing protein properly due to low digestive enzymes or other digestive issues.

eGFR NON-AFR. AMERICAN 4.00 (-4.44%)

Your result for this lab test is in the Clinical Low eGFR Your result for this test is in the Clinical Low range. eGFR (estimated Glomerular Filtration Rate) is a measure of your kidney function, and the concern is when the GFR number drops too low. Within your kidneys are small clusters of blood vessels called Glomeruli which act like tiny filters in the kidneys that remove waste products out of your blood, while still keeping the good things we need to remain in your blood - like protein and red blood cells. The GFR refers to the amount of blood that is filtered by the Glomeruli per minute. As kidney function declines due to disease or damage, the rate at which your blood gets filtered by your kidneys also decreases and waste products begin to build-up in your blood. This lab test combines your level of Creatinine with a formula that factors in your age, sex and race to determine your eGFR (estimated Glomerular Filtration Rate). Low GFR along with a high BUN (Blood Urea Nitrogen) and high Creatinine will create the greatest concern for altered kidney function and may require further evaluation with a specialist to determine the cause of abnormal kidney function or confirm the presence of kidney disease.

eGFR AFRICAN AMERICAN 4.00 (-4.44%)

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Patient Name: Vanna Hopkins **Date:** August 25 2020 09:02:09

Lab Test History Report

The Blood Test History Report lists the results of your patient's Chemistry Screen and CBC tests side by side with the latest test listed on the left hand side. This report allows you to compare results over time and see where improvement has been made and allows you to track progress.

Element	Aug 25 2020	Jun 01 2020	May 29 2020	May 22 2020	May 21 2020
CHOLESTEROL, TOTAL	4 ↓	56 ↓	142 ↓	170 ↑	7
HDL CHOLESTEROL	4 ↓	78 ↑	35 ↓	41 ↑	8
TRIGLYCERIDES	6 ↓		60 ↑	56 ↑	7
LDL-CHOLESTEROL	6 ↓		92 ↓	115 ↑	9
CHOL/HDLC RATIO	4 ↓		4.1	4.1 ↓	9
NON HDL CHOLESTEROL	4 ↓		107 ↓	129 ↑	9
HEMOGLOBIN A1c	4 ↓		5.2 ↓	5.7 ↓	9
GLUCOSE	4 ↓		76 ↓	92 ↑	9
UREA NITROGEN (BUN)	4 ↓		18 ↑	14 ↑	9
CREATININE	4 ↑		1.26 ↑	1.10 ↓	9
eGFR NON-AFR. AMERICAN	4 ↓		80 ↓	84 ↑	9
eGFR AFRICAN AMERICAN	4 ↓		93 ↓	97 ↑	9

Patient Name: Vanna Hopkins **Date:** August 25 2020 09:02:09

Product Summary Report

The Product Summary Report takes all the information on this report and provides a summary of the nutritional supplements recommended to help bring the systems of the body back into balance. This plan focuses on the top areas of need as presented in this report.

Lab Test Name	Recommended Product	Product	Morning on Wake-up Dose	AM with Breakfast Dose	Mid Morning Dose	Noon with Lunch Dose	Mid Afternoon Dose	PM with Evening Meal Dose	Before Bed Dose
Cholesterol, Total	Optimal Liver / Kidney	 Click to buy		1		1		1	
HDL Cholesterol	Optimal E.F.A.			1				1	
Glucose	Optimal Fat / Sugar			1		1		1	
Creatinine	Optimal Liver / Kidney			1		1		1	
Total Products	4	Buy All							

A re-test of lab testing is recommended on : November 23 2020

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