

# Getting started on a track to better health *and sticking with it.*



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The comprehensive panel of advanced tests provided by Health Diagnostic Laboratory, Inc. (HDL, Inc.) is a powerful tool for you and your doctor. Using this in-depth menu of tests, your doctor may discover risk indicators in your laboratory results that previous testing never revealed. Since early detection is your first and most promising step to better health—you are on the right track!

#### **Periodic Progress Testing**

Sticking with a regular testing regimen is critical to your path to better health. It allows your doctor to monitor the effects of medication and treatment. With periodic monitoring of your results, a personal treatment plan can now be fine-tuned for improving your total health. Your plan may include medication, diet and lifestyle recommendations. And in many cases, you can halt or even reverse the progression of disease.

## making the most of your Personal Health Coach

Your Personal Health Coach is a guide on your path to better health. Your coach is part of a team focused on your best possible care and treatment.



**2.1** Call the HDL, Inc. Customer Service Center at 1-877-4HDLABS (1-877-443-5227) or visit our website at [www.myhdl.com](http://www.myhdl.com) and schedule an appointment to meet your Personal Health Coach over the phone. You will spend approximately 45 minutes on the first call and approximately 30 minutes on follow-up calls.

**2.2** Your coach will provide educational support to ensure you understand any medication prescribed.

**2.3** Your coach will develop a personal health plan tailored to your specific risks. Your plan may include nutrition guidance, exercise, drug adherence, and stress reduction counseling.

**2.4** Your coach will report back to your doctor on your progress to make sure you are successful in reaching your goals. Your coach may periodically call or email you to identify any roadblocks.

## track your progress at [www.myhdl.com](http://www.myhdl.com)

**3.1** Login to [www.myhdl.com](http://www.myhdl.com) to track your web-based personal health records. By reviewing your lab reports over time, you can see your progress toward better health.

**3.2** Download useful information on disease management geared toward improving your condition.

myhdl.com



## learning more about your tests

Review some basics about the tests that may have been selected by your doctor as part of a panel of tests. Keep this guide handy to refer back to if you have any questions about a particular test.

### Apolipoprotein B (Apo B):

- Apo B helps “unlock” the doors to cells and delivers cholesterol to them. If you have high levels of Apo B it can lead to plaque that causes heart disease.
- We test your levels of Apo B because they are a better indicator of heart disease risk than total cholesterol or LDL (bad) cholesterol (LDL-C).
- A healthier diet and an increase in exercise are lifestyle changes that improve your Apo B levels.
- Apo B is used by your doctor to help determine the need for certain medications and to monitor if those medications are working.

### LDL-P:

- LDL-P is the actual number of LDL (bad) cholesterol particles in your blood.
- If you have elevated levels of LDL-P this increases your risk of heart disease.

### Small dense LDL cholesterol (sdLDL):

- Though small dense LDL particles contain less LDL (bad) cholesterol, they are actually more likely to damage your artery walls than the larger LDL particles.
- We therefore measure your small dense LDL cholesterol levels to see if you are at risk even if you're within the normal LDL-C range.
- If you have increased small dense LDL, your doctor can tailor therapy to lower your small dense LDL cholesterol and decrease your risk for future cardiovascular events (heart attacks and strokes).
- Exercise, weight loss, and medications are ways you can make a difference in lowering your small dense LDL.

### Apolipoprotein A-I (Apo A-I):

- Apolipoprotein A-I is the major protein component of HDL-C (good cholesterol) in your blood.
- Apo A-I helps to clear cholesterol from your arteries.
- High levels of Apo A-I decrease your risk for heart disease.

### **HDL-P:**

- Decreased HDL particles (HDL-P) have been associated with increased risk for cardiovascular disease.
- HDL particle concentration may be increased by exercise, supplements, and medication.

### **HDL2:**

- HDL-C (good cholesterol) helps to protect against progression of plaque build-up in your artery walls.
- Of the different types of HDL, HDL2 is best at removing bad cholesterol from your artery walls therefore reducing your risk for heart disease.
- Some ways that HDL-C and HDL2 can be improved are: better nutrition, loss of body fat, smoking cessation, increased physical activity, and certain medications.

### **Lp(a) Mass and Lp(a) Cholesterol:**

- Lipoprotein(a), also called Lp(a), is a lipoprotein subclass. We test your Lp(a) because a high level in your blood is a risk factor for heart disease and stroke.
- Elevated Lp(a) levels are genetic, meaning that they can occur in several family members.
- Lp(a) concentrations are only slightly affected by diet, exercise, and other environmental factors. Lp(a) may be lowered by some, but not all commonly prescribed lipid-reducing drugs.

### **Fibrinogen:**

- Fibrinogen is a protein involved in the blood's clotting process. Fibrinogen can become elevated for a range of reasons.
- If you have high levels of fibrinogen on an ongoing basis you may be at increased risk for developing a blood clot, heart disease, and other diseases.
- We test your fibrinogen levels, as they are a reflection of your clotting ability. You can lower your fibrinogen values by losing body fat, smoking cessation, and through medications.

### **High sensitivity C-Reactive Protein (hs-CRP):**

- C-reactive protein (CRP) is a protein found in your blood.
- If you have elevated hs-CRP it reflects both inflammation in your body as well as inflammation in the blood vessels.
- Blood vessel inflammation leads to plaque buildup in the arteries (hardening of the arteries) which may rupture, causing a heart attack, or stroke.
- If your hs-CRP levels are elevated, your doctor may prescribe a lipid lowering medication (statin) which has been shown to decrease hs-CRP and your risk for heart disease and stroke.

### **Lp-PLA<sub>2</sub>:**

- Lp-PLA<sub>2</sub> travels in your blood mainly with low-density lipoprotein (LDL). We test your levels of Lp-PLA<sub>2</sub> because high concentration is linked to inflammation in the artery walls and can predict your risk of a heart attack or stroke.
- When your Lp-PLA<sub>2</sub> and systolic blood pressure are both high, stroke risk increases significantly.
- Certain medications can help you reduce inflammation and levels of Lp-PLA<sub>2</sub>, thereby lowering your risk.
- Lifestyle changes such as proper nutrition, exercise, and managing stress help control your blood pressure and should help lower Lp-PLA<sub>2</sub> levels.

### **Myeloperoxidase (MPO):**

- When your artery walls are damaged, or inflamed, MPO is released as a defense mechanism.
- MPO testing has proven clinically useful in the identification of disease risk.
- We test your MPO because it allows your doctor to classify your risk categories and provide lifestyle modifications and treatment strategies.

### **F<sub>2</sub>-Isoprostanes:**

- Isoprostanes are valuable indicators of cell damage in your body.
- We test your F<sub>2</sub>-isoprostane concentration level because there is an association between increased concentrations and coronary artery disease in healthy adults.

### **NT-proBNP:**

- When you experience continued stress or strain on your heart a hormone is released from the cells of the heart muscle called NT-proBNP.
- We test your level of NT-proBNP, as higher concentrations serve as a warning signal that your heart is overworked on an ongoing basis.
- With early awareness of high values you can work with your physician to lower the risk of heart disease before symptoms present.

### **AspirinWorks®:**

- Aspirin therapy has been reported to reduce cardiovascular events from 15% to 40%. However, aspirin use is not without risk.
- We perform the AspirinWorks® Test to identify patients who fail to benefit from aspirin so that they can be treated appropriately with other drugs.

### **Apolipoprotein E Genotype (ApoE):**

- Playing a critical role in our comprehensive measurements, ApoE helps to identify how people respond to varied amounts of dietary fat and how they carry cholesterol in the bloodstream.
- ApoE comes in different genetic forms, also called alleles. The three forms that occur most frequently include: ApoE2, ApoE3, and ApoE4.
- People carrying the ApoE4 allele are at greater risk for heart disease. This genetic test can therefore help you create a proactive plan for better total health.

### **CYP2C19:**

- Plavix® (the brand name for clopidogrel) is the world's second best-selling drug. However, patients with certain genetic profiles may not receive the full benefit of the drug's anti-clotting effects because they metabolize it poorly.
- We use the CYP2C19 test to determine your ability to activate the drug.
- By using this test, your doctor will be able to tell if you are a poor, intermediate, or extensive metabolizer and customize your treatment plan accordingly.

### **Factor V Leiden Genotype and Prothrombin Mutation:**

- We use these genetic tests to help your doctor determine if you are at higher risk for forming blood clots.

### **Methylenetetrahydrofolate Reductase (MTHFR):**

- Your MTHFR gene provides your body's instructions to make the building blocks for a protein responsible for folate metabolism.
- We test MTHFR because a specific version of the MTHFR gene may increase your risk of coronary heart disease and stroke.

### **Warfarin Sensitivity (VKORC-1 & CYP2C9):**

- Warfarin (Coumadin®) is one of the most widely used substances to stop blood from clotting. However, it has severe consequences (severe bleeding or clotting) if dosed incorrectly.
- The CYP2C9 and VKORC1 genes harbour common mutations that can affect your response to warfarin.
- We use a simple DNA test to detect genetic variants (found in approximately half of patients) that may impact warfarin dose requirements.
- Scientists believe that the use of this testing will dramatically improve the effectiveness and safety of warfarin therapy.

### **Cystatin C**

- Cystatin C is used as a biomarker of kidney function and as a substitute for estimated Glomerular Filtration Rate (GFR), which is an indication of the state your kidneys.
- We measure your Cystatin C because if your blood levels rise it may indicate a decline in your kidney function and glomerular filtration.
- Studies show Cystatin C levels can predict new-onset or deteriorating cardiovascular disease.

## Insulin:

- Insulin is a hormone produced by your pancreas. Insulin is necessary for glucose (your blood sugar) to be used for energy.
- We test your levels of insulin because high concentrations are linked to heart disease, diabetes, and other health concerns.
- You can improve your insulin levels through medications, exercise, nutrition, and managing stress.

## C-Peptide:

- Insulin can cause the cells in your blood vessels to grow more than they should and narrow the passageway used by your blood to get to the heart.
- C-peptide is a naturally occurring substance that protects your blood vessels from the damaging effects of insulin.
- We measure your C-peptide levels to gain a better picture of your total health. Your doctor can use this information for your treatment plan and to verify the effectiveness of treatment.
- Knowing your C-peptide levels are especially important for people who have been newly diagnosed with type 1 diabetes, as well as those with type 2 diabetes. Sometimes a C-peptide test may be used to help evaluate a person diagnosed with metabolic syndrome, in conjunction with risk factors like obesity and hypertension.

## Free Fatty Acids (FFA):

- Fatty acids can be bound or attached to other molecules. When they are not attached to other molecules, we call them "free" fatty acids.
- We test for these because elevated free fatty acids are associated with metabolic syndrome. People with metabolic syndrome are at increased risk of coronary heart disease and other diseases related to plaque buildups in artery walls (such as stroke) and type 2 diabetes.
- Free fatty acids can make your own insulin not work as well and can also cause an increase in your blood sugar.
- Weight loss, exercise, and medications can help lower free fatty acids.

## Vitamin D:

- Long-term studies have linked vitamin D deficiency with a twofold increased risk of a heart attack.
- Knowing your vitamin D level can help your doctor make the right recommendations for medications and supplements.

## Homocysteine:

- Homocysteine is an amino acid found in the blood. Elevated concentrations of homocysteine can injure your blood vessel walls, cause blood clots, and increase your risk for heart disease and stroke.
- We monitor the amount of homocysteine in your blood to estimate risk of disease.
- You can reduce homocysteine levels through nutrition and adversely affect levels through medications.

## Vitamin B<sub>12</sub>:

- Your body needs the B<sub>12</sub> vitamin to make blood cells and to maintain a healthy nervous system.
- We test for vitamin B<sub>12</sub> to assess your risk and to provide your doctor with information to customize your treatment plan.

## RBC Folate:

- We measure the amount of folate inside your red blood cells (RBC) because folate is necessary for normal cell formation, tissue, and cellular repair.
- Inadequate levels of folate are linked to heart disease and stroke.
- Your doctor may suggest folic acid supplements to improve your overall health.

# 5

## understanding your bill


### We keep billing simple.

- For patients with MEDICARE/MEDICAID, the entire cost of services performed by HDL, Inc. is covered under current Medicare/Medicaid requirements.
- For patients with PPO/POS/HMO insurance, if it turns out your insurance company does not cover a specific test, HDL, Inc. assumes all the risk.

### When will patients receive a bill from HDL, Inc.?

- 1) If HDL, Inc. learns that payment for services was sent directly to the patient and not forwarded to our billing department as requested above.
- 2) If the patient does not have Medical Insurance or opts for services at the cash price.
- 3) If HDL, Inc. has filed claim(s) with the patient's insurance company and the patient has NOT met the patient contribution requirements (i.e. deductibles, co-pays, etc.) for laboratory services.

### THE BENEFITS SUMMARY OF YOUR CLAIM IS NOT A BILL.

EXPLANATION OF BENEFITS Benefits Summary—THIS IS NOT A BILL		 <b>Insurance Company</b> 123 Broad Street   Richmond, VA 23232   804.999.9999	
Date: 1/1/11 Provider Number: 232563 Tax ID Number: 236589		John Doe 123 Smith Street Atlanta, GA 54321	
Co-Pay	Deductions	Total	Patient Responsibility
\$50	\$17.86	\$586.73	\$518.87

**THIS IS NOT A BILL**  
You DO NOT PAY the amount the insurance company says is the patient responsibility.

### IMPORTANT

If your insurance company sends a check directly to you, rather than HDL, Inc., please sign the back of the check and write "Pay to the order of HDL, Inc." and forward to the address below.

Health Diagnostic Laboratory, Inc.  
Attention: Billing Department  
737 North 5th Street, Suite 103  
Richmond, Virginia 23219