

## HDL CHOLESTEROL (High Density Lipoprotein)

**Read all instructions carefully before beginning the test.  
If you have any questions, please call our Technical  
Assistance at: 1-800-482-2907.**

### Specimen Collection and Preparation

The **HDL Cholesterol** Test must be performed using FRESH finger stick Whole Blood. The Whole Blood specimen should be tested immediately after draw. The finger stick device is a single use lancet; one (1) lancet should be able to provide enough whole blood to fill the blood collection dropper in order to complete the HDL Cholesterol test. The included dropper must be used to ensure that the required volume of whole blood is obtained for this test.

### Important Pre-Test Preparation

Before beginning the test procedures:

1. Do not open the Foil Pouch until ready to use.
2. Visually inspect the Foil Pouch to confirm date of use is prior to expiration date.
3. Store and keep the device at Room Temperature 18-27°C (64-81°F). **DO NOT** open the foil pouch or perform the test in a humid environment, such as a steamy bathroom, or in direct sunlight.
4. Have a stopwatch, clock or wristwatch with a sweep second hand ready.

### Test Procedure

#### Step 1 - Preparing for the Test

- a. Open a Test Foil Pouch and remove the test cassette. Find the words **“Place Blood Here,”** followed by an arrow. Lay the cassette on a dry table with these words facing up (**Figure 1**). The large circle on the device is the Sample Circle where you will place your blood in **Step 3**. **Note:** Make sure the test strip has not moved in handling, and that the round test pad of the test strip is in the center of the sample circle.



**Figure 1**

**NOTE:** Do not place anything on the table under the cassette including tissues, napkins or paper towels.

- b. Remove the clear plastic dropper (pipette), lancet and alcohol prep pad from the test kit box.

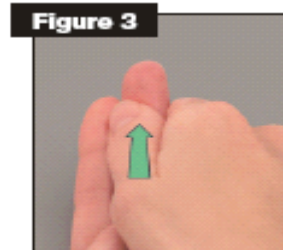
- Hold the dropper (pipette) by the bulb end and insert the bulb end into the slot in the area marked, **“Place Pipette Here”**. Using your index finger, push the bulb firmly into the slot. (**Figure 2**).



**Figure 2**

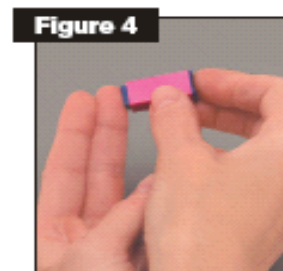
- Remove the protective plastic cap from the lancet and lay the lancet on the table. Open up an alcohol prep pad and place the pad on the pouch for easy access.
- c. Wash hands thoroughly with soap and warm water. Dry completely. If your hands are cold, rub them together to warm them.
  - d. Select the finger from which you will obtain the blood sample. Make sure your finger is warm and callous-free.
    - If you are right-handed, select the **“middle”** or **“ring”** finger of your left hand.
    - If you are left-handed, select the **“middle”** or **“ring”** finger of your right hand.
  - e. Wipe the selected finger with the alcohol prep pad provided. To increase blood flow, let your arm hang down at your side while the alcohol dries.

#### Step 2 - Obtain Blood Sample



**Figure 3**

- a. **Place selected finger flat on the tabletop.** With the thumb of your opposite hand, massage or **“milk”** the selected finger, five or six times, to push blood to the tip (**Figure 3**).



**Figure 4**

- b. Place the raised end of the lancet firmly against the **side of the selected finger**.

Press the lancet against your finger until you hear a **“click”**. You may feel a slight sting. (**Figure 4**).

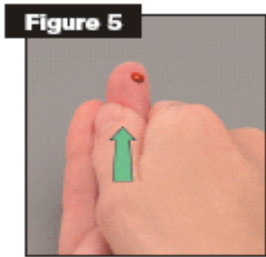


Figure 5

c. With the thumb of your opposite hand, massage or “milk” your finger until a **large drop of blood forms**. (Figure 5).

d. Gently touch the drop of blood to the tip of the dropper (Figure 6). Be sure to touch the drop of blood directly over the puncture site. The dropper will start to fill with blood.

e. **Fill the dropper until the blood reaches the black line.**

If necessary, massage your finger to get more blood.

**NOTE:** The dropper **WILL NOT** fill past the black line.

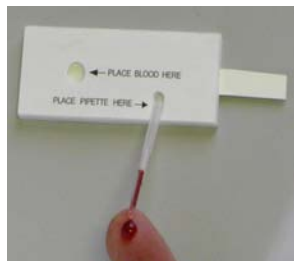


Figure 6

### Step 3 - Run Test

- Gently pick up the dropper by the bulb end, **NOT** the tip. **DO NOT** squeeze the dropper.
- Hold the dropper above the Sample Circle. Squeeze the bulb gently to empty **all** of the blood, **at one time**, onto the test pad located in the center of the Sample Circle (Figure 7).

If necessary, lightly touch the dropper tip to the Test Pad of Sample Circle, to dislodge the blood drop. **DO NOT** poke the test pad with the dropper.

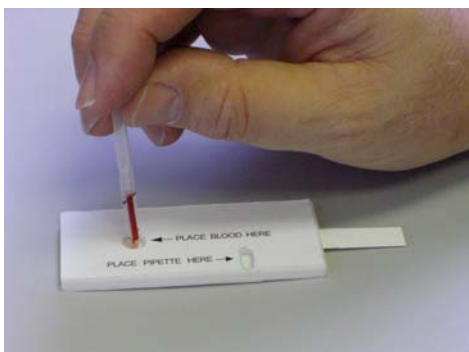


Figure 7

- Immediately begin timing.
- Wait 1 minute** to turn the cassette over to the side with the **HDL Cholesterol** Color Charts.

### Step 4 - Read Result

#### NOTE:

- Complete Step 4 under bright light, but **NOT** in direct sunlight.

- The color of the Result Circle should have changed from the pre-test yellow or cream color to a shade of green.
  - Read the **HDL Cholesterol** test **after 1 minute** but **before 2 minutes** have passed.
- Make sure the Result Circle is at the lowest value on the corresponding Color Chart. Slide each test strip (white tab) **along** the Chart to compare the color in the Result Circle with each Color Block.
  - Look for the best color match. **DO NOT** try to match how dark or intense the color appears.

#### NOTE

- Look closely to identify any green shading in the Result Circle. Choose the best shade of yellow-green, green, or blue-green.
  - The Result Circle may not match one color block exactly, and may appear to be between two color blocks.
  - The Result Circle may also be unevenly colored (light and dark patches of green). If so, use the darkest shade of green color to determine your Test Result.
- Determining your Test Result:
    - If the Result Circle matches one Color Block, the number printed next to the Color Block is your Test Result.
    - If the Result Circle seems to be *between two color blocks*, follow the black arrow separating the two blocks. The number printed next to the arrow is your Test Result.

Record your Test Result.

See **Figure 8** for a Test Result Example.



Figure 8

In **Figure 8**. The HDL Cholesterol Test most closely matches as the 40 mg/dL color block. This is the test result indicated.

- After you have completed the desired test(s), discard all test materials.

#### Intended Use

The **HDL Cholesterol** Test is intended for *in-vitro* diagnostic for the semi-quantitative determination of Total Cholesterol in whole blood.

The **HDL Cholesterol** Test is used to screen for elevated HDL cholesterol as a risk factor in coronary artery disease. HDL Cholesterol measurements are used in the diagnosis and treatment of disorders involving excess cholesterol in the blood and lipid and lipoprotein metabolism disorders.

This test provides preliminary analytical results. All results indicating elevated blood HDL cholesterol levels should be verified by a confirmatory method. Clinical considerations and professional judgment should be applied to the interpretation of results by this test.

### Summary and Explanation

HDL Cholesterol, a lipoprotein, is associated with the pathogenesis of atherosclerosis and coronary artery disease, and the measurement of cholesterol blood levels is used to classify patients according to coronary heart disease risk, to diagnose and treat various primary or secondary hyperlipidemias, and to monitor changes resulting from treatment.

### Principle of the Test

The **HDL Cholesterol** Test includes a test strip that is treated with chemical reagents. A whole blood sample is absorbed on a receiving pad on the back of a test strip. The blood sample absorbs through to the front of a test strip and reacts with the reagents. The reaction area produces color that can be related to the cholesterol concentration in the blood by comparison with a supplied color chart.

### Materials Provided

(1) Test Kit containing:

- 1 **HDL Cholesterol** Test Cassette including:
- 1 **HDL Cholesterol Test**
- 1 Finger Stick Lancet
- 1 Alcohol Prep Pad
- 1 Adhesive Bandage
- 1 Blood Collection Dropper (pipette)
- 1 Package Insert

### Materials Required But Not Provided

Timing Device (stopwatch, clock or wristwatch with a sweep second hand)

### Storage Conditions

Store at Room Temperature 18-27°C (64-81°F), out of direct sunlight, in the sealed pouches. The test can be used up until the expiration date indicated on the pouch label.

Do not open pouch in a steamy bathroom. Once the package is opened, the tests should be used immediately.

**NOTE:** The cassette should be disposed of once the result of the single test has been obtained.

### Warnings and Precautions

- For *in-vitro* diagnostic use only.
- For external use only. Keep out of reach of children.
- Never use a lancet or dropper that was used by another person.
- Not recommended for use by hemophiliacs or individuals taking medicines that thin blood (anticoagulants).
- Individuals who are colorblind should have another person read their test result(s).
- Do not run the test within 4 hours after taking acetaminophen (Tylenol®) or Vitamin C tablets (500 mg or more).
- If you are taking Viagra® or a similar drug, have another person read the test result if you are performing the **HDL Cholesterol** Test procedure within 6 hours of taking the drug; these drugs may temporarily affect your perception of blue and green colors.
- Use only with fresh blood. Do not use with other body fluids. Do not use for testing food or animals.
- Use before the expiration date on the package.
- Do not open the foil pouch until you are ready to run the test.
- Do not reuse lancet, droppers, or test cassette.

**NEVER ADJUST YOUR MEDICATION BASED ON YOUR HDL Cholesterol Test RESULT.**

## UNDERSTANDING YOUR TEST RESULT

### HDL/LDL CHOLESTEROL

The cholesterol in your blood consists of HDL Cholesterol (often called “good cholesterol”) and LDL Cholesterol (often called “bad cholesterol”). Your risk of heart disease is related to your HDL level, your total cholesterol level (HDL plus LDL), and other risk factors. The National Cholesterol Education Program guidelines state that a low level of HDL (“good”) cholesterol is associated with an increased risk of heart disease.

The HDL Cholesterol test strip measures your HDL (“good”) cholesterol level. **If your test result is 40 mg/dL (1 mmol/L) or less**, you may be at increased risk for heart disease, whether or not you have additional risk factors.

**If your test result is above 40 mg/dL (1.0 mmol/L)**, you cannot evaluate your risk of heart disease based on your HDL Cholesterol level alone. If you have other risk factors, such as a high Total Cholesterol level, you may be at increased risk for heart disease. You can also measure your Total Cholesterol level with the Total Cholesterol test kit.

### Important Notes:

- One HDL Cholesterol test may not give a definitive or typical result. The National Cholesterol Education Program recommends averaging two or three cholesterol test results. The program also recommends that you re-check your Total and HDL Cholesterol levels every six months.
- Your HDL cholesterol level may vary if you are pregnant, take birth control or estrogen replacement pills, or if you have certain medical conditions or recent illnesses.
- A low HDL Cholesterol level is just one risk factor for heart disease. Other risk factors include smoking, high blood pressure, a high total cholesterol level, a family history of heart disease, a diet high in saturated fats, and insufficient exercise.

## QUESTION AND ANSWER SECTION

*Can the Result Circle change color without giving me a correct reading?*

Yes, you may get an incorrect result if:

- ✓ You compared colors **before** 1 minute or **after** 2 minutes for the HDL Cholesterol test.
- ✓ You performed the test in direct sunlight, or in a steamy bathroom.
- ✓ You wiped your finger with something other than the alcohol swab provided.
- ✓ The test cassette was stored or used above the maximum room temperature (27°C or 81°F).
- ✓ You did not use sufficient blood to perform the test
- ✓ You did not fill the pipette with the proper amount of blood

*Do I need to fast before I run the test, or do I need to run it at a specific time of day?*

- ✓ No. You do not have to fast, and you can run the test at any time.

*Will common foods, alcohol, vitamins or medicines affect my test results?*

- ✓ No Foods and beverages (including orange juice), and most medications (including aspirin and vitamins) will not interfere with the test. However, do not run the test within 4 hours after taking acetaminophen (Tylenol®) or Vitamin C tablets (500 mg or more). Also, if you are taking Viagra® or a similar drug, have another person read the test result if you are performing the **Cholesterol Complete Test** procedure within 6 hours of taking the drug; these drugs may temporarily affect your perception of blue and green colors.

## **LIMITATIONS**

The **HDL Cholesterol** Test is used for the semi-quantitative determination of cholesterol in whole blood.

The **HDLCholesterol** Test should be used as a screening test. Your healthcare professional may require additional testing for diagnosis and treatment.

The procedure outlined in the “Test Procedure” section **must** be followed closely by the user.

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**For Technical Assistance with questions about the Test Procedure, please call 1-800-482-2907.**

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**US FDA & ISO Certified Facility**



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