



Lab A11-4 Screening for Heart Disease Risk Factors

It is important to begin managing risk factors for heart disease as soon as they develop—whether or not you actually have symptoms. The following guidelines can help ensure that you are appropriately screened.

Cholesterol: Fasting lipoprotein profile (total cholesterol, LDL, HDL, and triglycerides)

Who should be tested: Everyone age 20 and older, at least once every 5 years.

Result	Rating	Your result/rating
<i>LDL cholesterol (mg/dl)</i>		
Less than 100	Optimal	_____
100–129	Near optimal	
130–159	Borderline high	
160–189	High	
190 or more	Very high	
<i>Total cholesterol (mg/dl)</i>		
Less than 200	Desirable	_____
200–239	Borderline high	
240 or more	High	
<i>HDL cholesterol (mg/dl)</i>		
Less than 40	Low	_____
60 or more	High (desirable)	
<i>Triglycerides (mg/dl)</i>		
Less than 150	Normal	_____
150–199	Borderline high	
200–499	High	
500 or more	Very high	

Actions:

To determine what actions to take based on your cholesterol results, you need to count the number of the following five heart disease risk factors that apply to you: (1) cigarette smoking, (2) hypertension (see next section), (3) low HDL cholesterol (< 40 mg/dl), (4) family history of heart disease, and (5) age (45 years or older for men, 55 years or older for women). An HDL level of 60 mg/dl or higher counts as a negative risk factor and removes one risk factor from the total count.

Number of personal risk factors: _____

If you have 0–1 risk factors for heart disease and LDL < 160: Retest within 5 years.

If you have 0–1 risk factors for heart disease and LDL ≥ 160: Initiate TLC* and retest in 3 months.

If you have 2 or more risk factors for heart disease and LDL < 130: Retest as suggested by physician.

If you have 2 or more risk factors for heart disease and LDL ≥ 130: Initiate TLC* and retest in 3 months.

If you have heart disease or diabetes (or an equivalent risk condition) and LDL < 100: Initiate TLC* and retest as suggested by physician.

If you have heart disease or diabetes (or an equivalent risk condition) and LDL = 100–129: Initiate TLC* and follow other treatment and testing recommendations from physician.

If you have heart disease or diabetes (or an equivalent risk condition) and LDL ≥ 130: Initiate TLC* and drug therapy and retest as suggested by physician.

*TLC = Therapeutic Lifestyle Changes: weight management; increased physical activity; and a diet with total fat intake of 25–35% of total daily calories, saturated fat intake less than 7% of total calories, and, for some people, 10–25 grams per day of soluble fiber and 2 grams per day of plant stanols and sterols.

(over)

LAB A11-4 (continued)

Blood Pressure

Who should be tested: Everyone, at least once every 2 years.

Systolic (mm Hg)		Diastolic (mm Hg)	Rating	Your result/rating
below 120	and	below 80	Normal	_____
120–139	or	80–89	Prehypertension	
140–159	or	90–99	Stage 1 hypertension	
160 and above	or	100 and above	Stage 2 hypertension	

Actions:

If your rating is normal, maintain a healthy lifestyle and retest in 2 years.

If your rating is prehypertension, follow your physician's advice about lifestyle changes and retesting.

If your rating is hypertension, follow your physician's advice about lifestyle changes, medication, and retesting.

Stage 2 hypertension will likely require a two-drug combination to control.

Fasting Blood Sugar

Who should be tested: Everyone who has any of the following risk factors for diabetes should be tested at least every 3 years: age 45 or older, obesity, blood pressure over 139/89, HDL below 35, physical inactivity, ethnicity (Blacks, Latinos, American Indians, Asians, Pacific Islanders), triglycerides over 249, family history of diabetes, gestational diabetes, previous abnormal blood sugar test, or polycystic ovary syndrome.

Result	Rating	Your result/rating
Below 110 mg/dl	Normal	_____
110–125 mg/dl	Pre-diabetes	
126 mg/dl or higher	Diabetes	

Action: If your result indicates that you have pre-diabetes or diabetes, follow your physician's recommendations for lifestyle changes, medication, and future testing.

C-Reactive Protein (CRP)

Who should be tested: Everyone classified as at intermediate 10-year risk of having a heart attack; to determine your risk, take the 10-year risk test at <http://hin.nhlbi.nih.gov/atpiii/calculator.asp?usertype=pub>. If your risk is between 10% and 20%, your CRP level should be tested.

Result	Rating	Your result/rating
<1.0 mg/l	Low	_____
1.0–3.0 mg/l	Average	
>3.0 mg/l	High	

Action: If you have an elevated CRP level, follow your physicians advice for lifestyle changes and, if necessary, medication.

Metabolic Syndrome

Check if any of the following risk factors apply to you:

- _____ Abdominal obesity (waist circumference greater than 40 inches in men and 35 inches in women)
- _____ High blood pressure (130/85 or higher)
- _____ High triglycerides (150 mg/dl or higher)
- _____ Low HDL cholesterol (below 40 mg/dl in men and 50 mg/dl in women)
- _____ Insulin resistance (glucose of 110 mg/dl or higher)

Number of metabolic syndrome risk factors: _____

You are classified as having metabolic syndrome if you have three or more of the risk factors associated with the condition. If you have metabolic syndrome, discuss lifestyle changes and other treatment options with your physician.