

Classic Cardiac Symptoms

These symptoms are not 100 percent gender-specific. Women generally experience more vaguely defined symptoms than men.

Men

- Midchest pressure
- Shortness of breath
- Dull pain between the shoulder blades
- Achiness in the jaw
- Pain in the left arm or elbow
- Profuse sweating

Women

- Acute breathlessness
- Sudden, profound fatigue
- Dull, aching chest discomfort (vague)
- Jaw or neck pain
- Pain in the left arm or elbow
- Abdominal discomfort, nausea, vomiting
- Dizziness, even blackouts

The New Cardiology Risk Assessment

Here's a short and simple checklist that can determine your risk of a cardiovascular event based on the New Cardiology approach. You'll need to get blood work and an electron beam tomography (EBT) scan. But the time spent will be worth your while because you'll get a good picture of your vulnerability. After you receive your test results, check the boxes that apply to you:

- A family history of cardiovascular events (heart attack, stroke) under the age of fifty.
- You are a male, or a "vitally exhausted" (meaning chronically fatigued, stressed-out) female
- An HDL (high-density lipoprotein) cholesterol level lower than 35 mg/dl (men) or 40 mg/dl (women)
- Triglycerides* higher than 150 ml/dl
- Triglyceride/HDL ratio higher than 4 to 1
- Homocysteine higher than 10 $\mu\text{mol/L}$
- Lp(a) higher than 30 mg/dl
- CRP (C-reactive protein) higher than 1.5 mg/L
- Fibrinogen higher than 350 mg/dl
- Fasting insulin above 17 microunits/L
- Resting blood pressure above 140/90
- EBT (scan for calcified plaque) score above 200

Each checkmark means 1 point. Add your points to get your total score. This informal test is not based on any official or medical association criteria but on our combined clinical experience. We would interpret your results as follows:

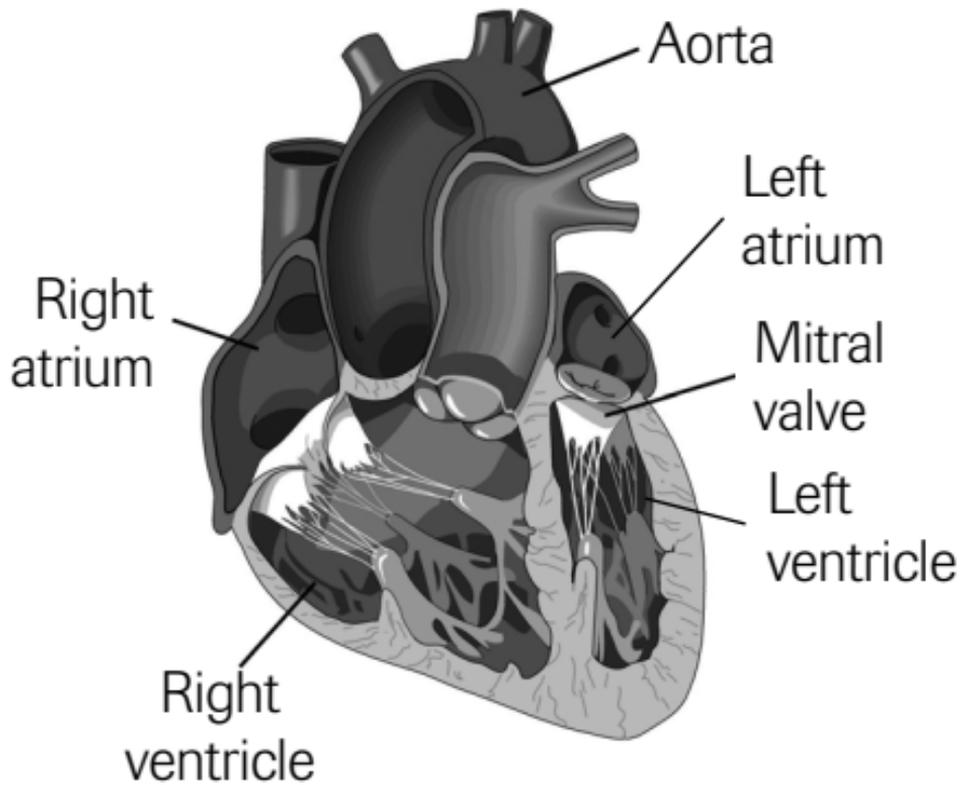
- 0–1 Minimum risk
- 2–3 Low risk

*Triglycerides are the chemical form of most fats in the body. Triglycerides in the blood come from dietary fats or from other calorie sources such as carbohydrates. Dietary calories not used immediately by tissues for energy are converted to triglycerides and stored in fat cells. Stored triglycerides are released as needed to meet energy demands. Excess triglycerides are linked to coronary artery disease in some people.

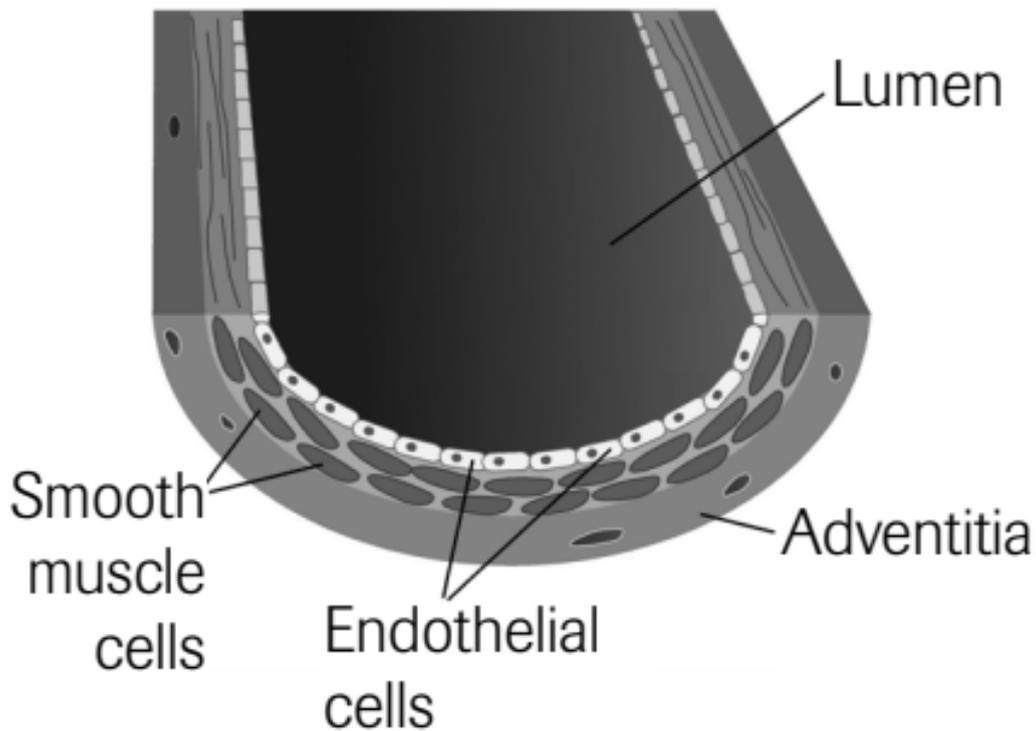
- 4–5 Moderate risk
- 6 Moderate to severe risk
- over 7 Severe risk

You'll notice we have left off total cholesterol. As we will explain in the coming pages, there are other factors that we believe are more important.

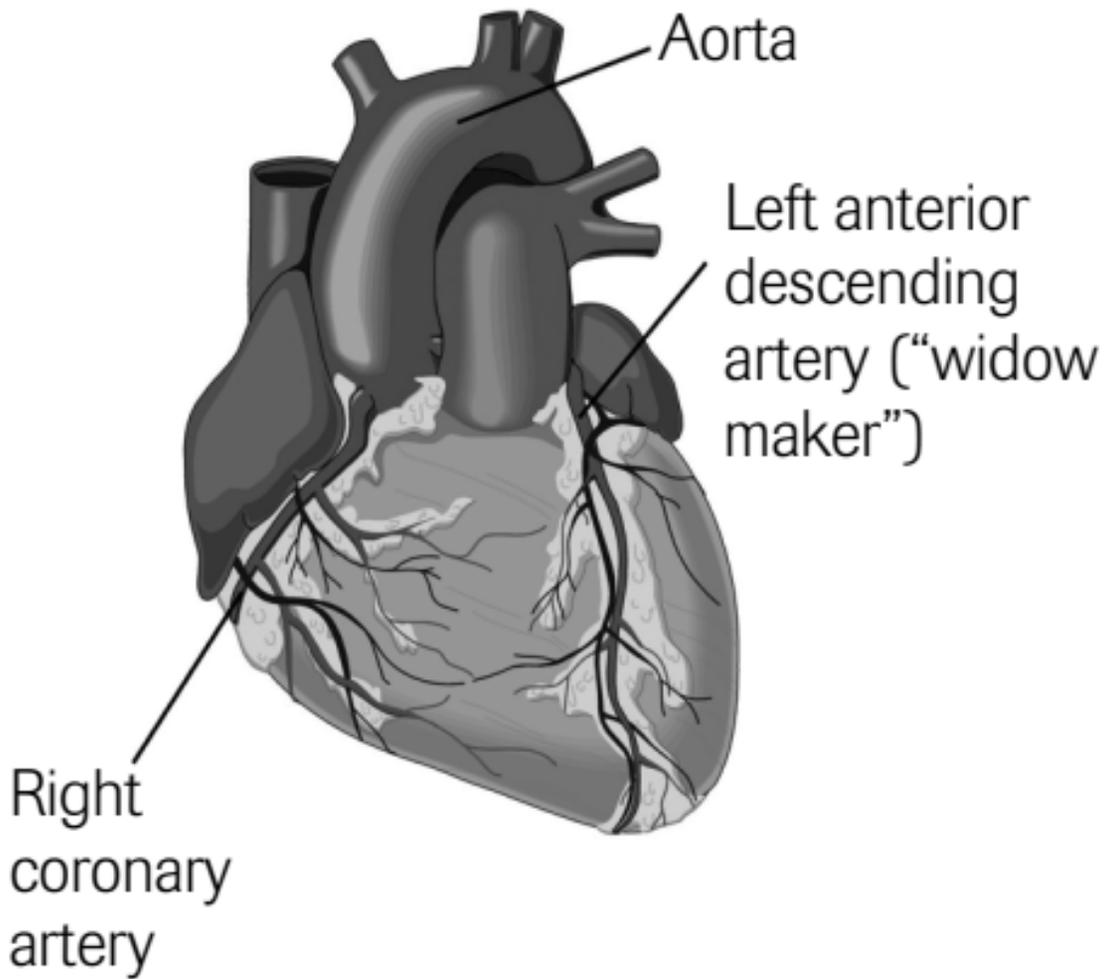
Notice that we also left out smoking. That's because we assume you don't smoke. If you do, add 3 points. Smoking is a killer by anybody's standards.

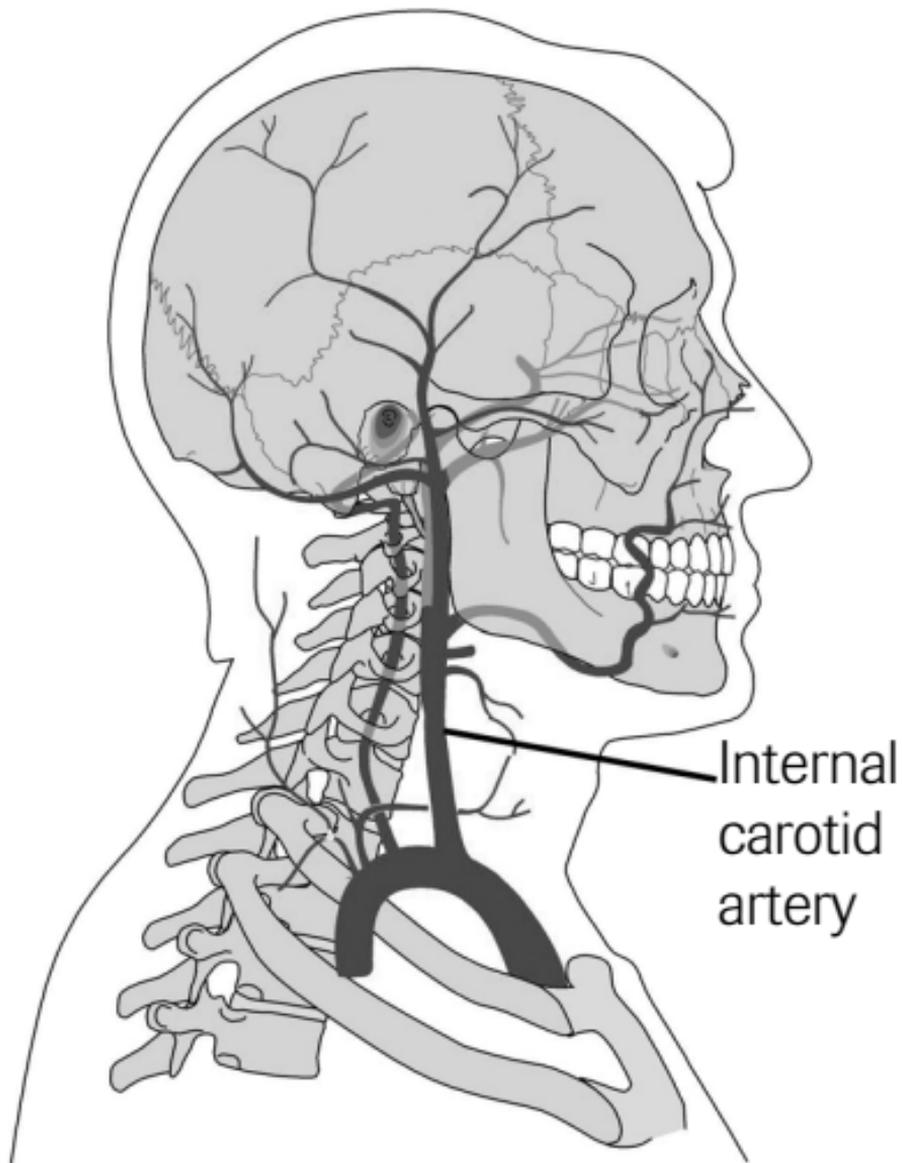


The heart

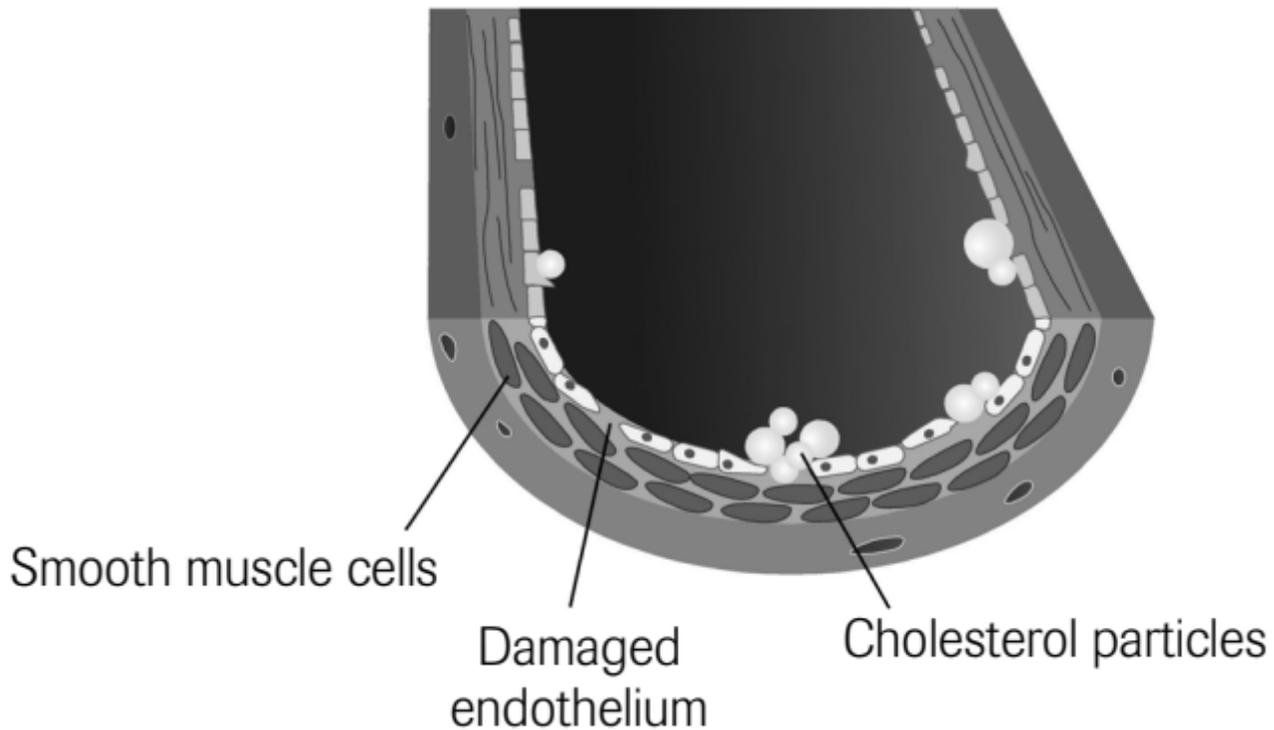


The endothelial lining

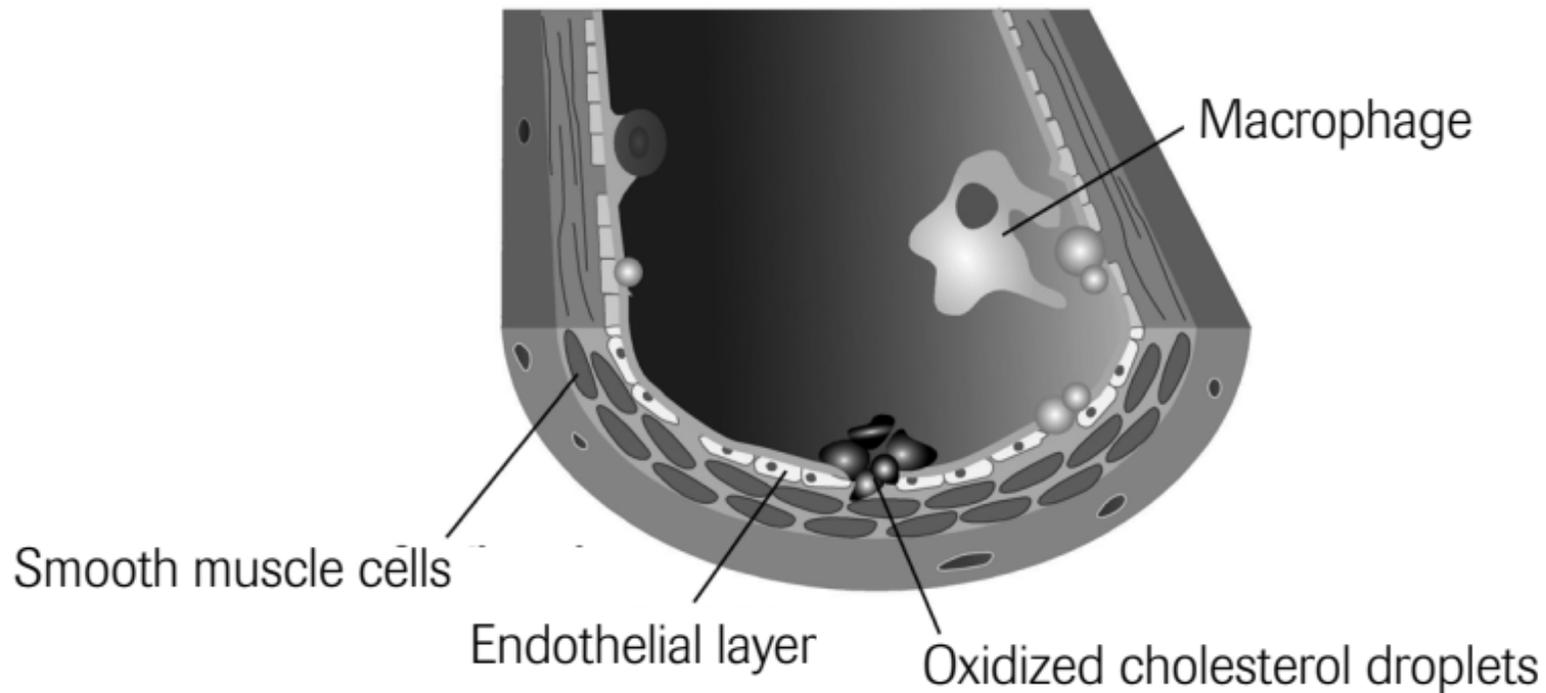




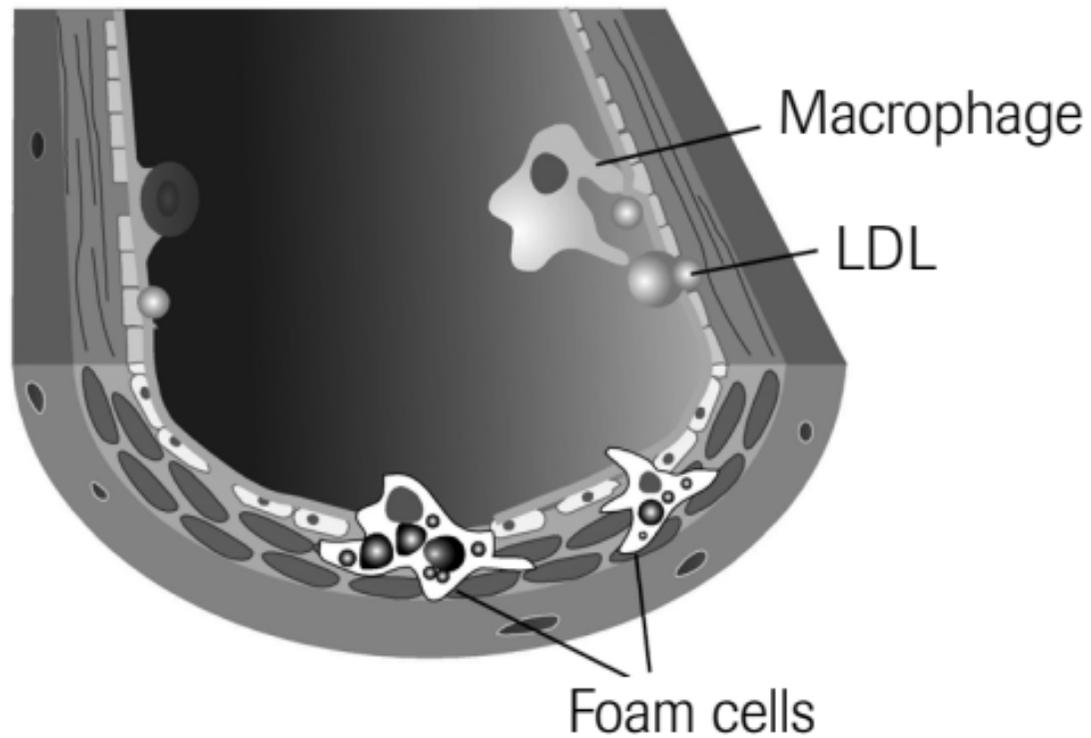
The internal carotid arteries, the most important vessels feeding the brain



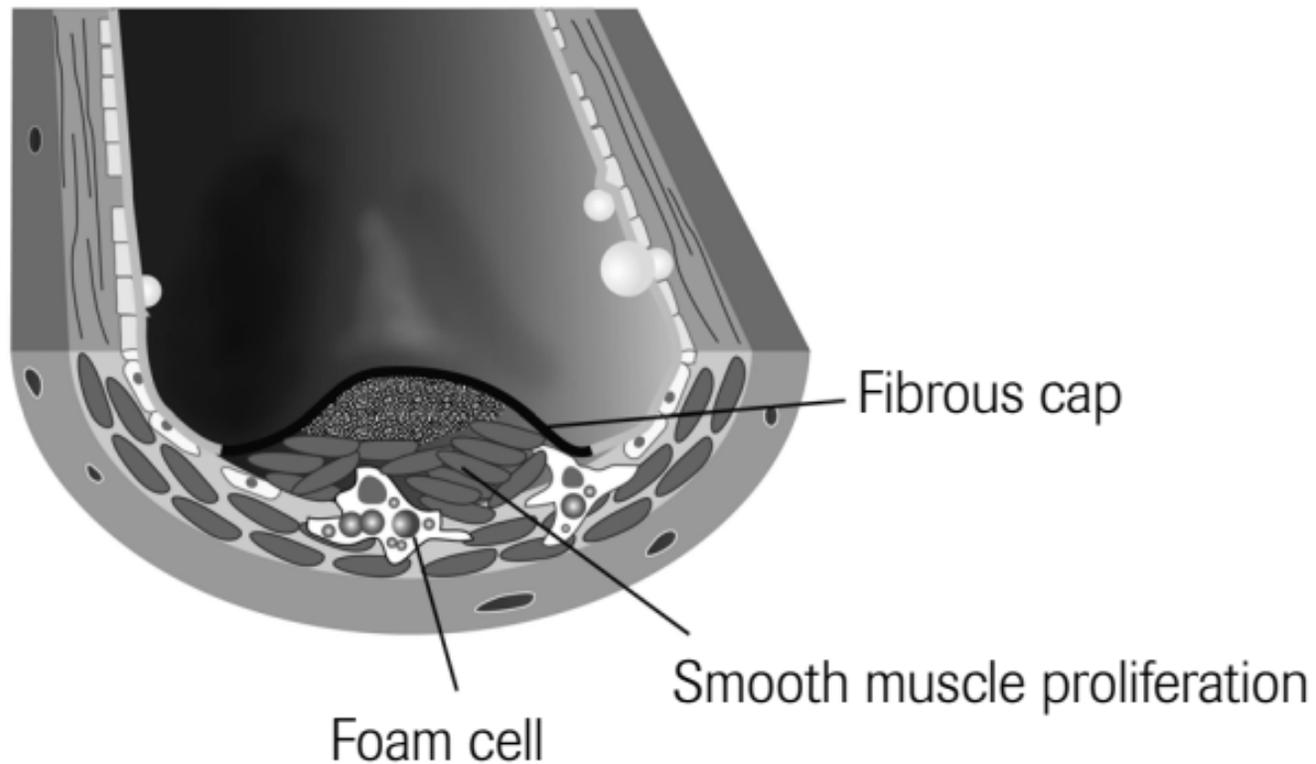
The start of arterial damage



The inflammatory damage intensifies



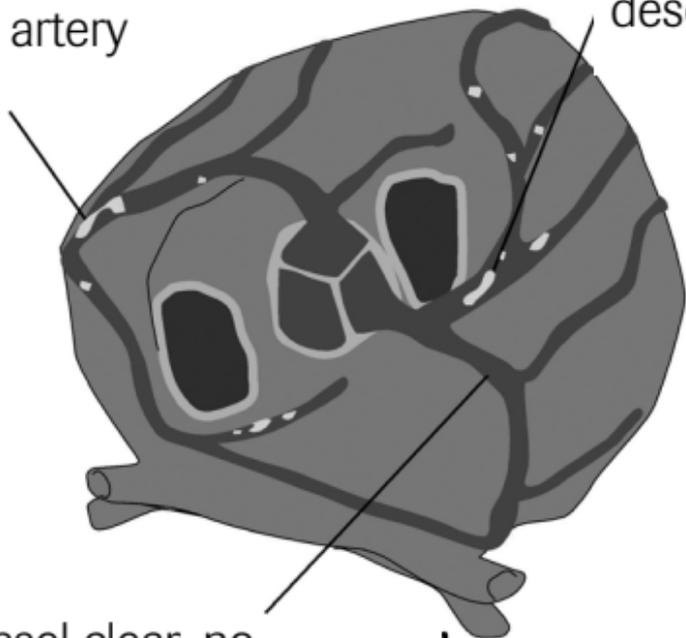
The lesion grows . . .



... into a potentially dangerous plaque

Calcium deposit in right coronary artery

Calcium deposit in left anterior descending artery



Circumflex vessel clear, no calcium deposits

An example of plaque in the coronary arteries

New Cardiology Blood Work

<i>Blood Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>
CoQ10	_____	1.0–1.8 µg/ml
CRP	_____	<0.8 mg/L
Ferritin (iron)	_____	Women <80 µg/L Men <90 µg/L
Fibrinogen	_____	180–350 mg/dl
Homocysteine	_____	<9 µmol/L
Lp(a)	_____	<30 mg/dl
Total cholesterol	_____	125–200 mg/dl
HDL	_____	Women 40–120 mg/dl Men 35–70 mg/dl
LDL	_____	70–130 mg/dl
Oxidized LDL	_____	0–650 units
Triglycerides	_____	50–180 mg/dl
AA/EPA ratio	_____	1.5–3.0
Lead, mercury, and other toxic metals (see chapter 8)		

TESTS FOR INSULIN RESISTANCE

Fasting blood sugar	_____	<100 mg/dl
Fasting insulin	_____	<17 microunits/L
Hemoglobin A1C	_____	<6% of total HGB

CoQ10 Group

Non-CoQ10 Group

FOUR WEEKS AFTER TREATMENT

Adverse events

15 percent

32 percent

ONE YEAR AFTER TREATMENT

Adverse events

25 percent

48 percent

Death rate

11 percent

20 percent

	<i>CoQ10 Patients</i>	<i>Non-CoQ10 Patients</i>
Heart muscle ATP level	Higher than baseline	Plummeted
Heart muscle CoQ10 level	Higher than baseline	Plummeted
Immediate postbypass ejection fraction average	40 percent	20 percent
Recovery average	3–5 days	15–30 days
Deaths	0	2
Requirement for kidney dialysis	0	3

<i>Supplement</i>	<i>Your Daily Dosage</i>	<i>Comments</i>
Multivitamin/mineral with antioxidants	Follow label instructions.	The most effective multiformulas require that you take several or more capsules/tablets daily.
Fish oil	2–4 g	Be sure the product you take is pharmaceutical grade—that is, free of contaminants. The label will tell you.
Magnesium	400–800 mg	
CoQ10	100–300 mg or more	See chapter 7 for dosage and form specifics.
L-carnitine	1–3 g	Take half the recommended dosage if you have a stable heart—that is, no heart failure.
D-ribose	10–15 g	Take half the recommended dosage if you don't have heart failure or angina.
L-arginine	6–8 g	
DetoxMaxPlus: phosphatidylcholine (essential phospholipids) with EDTA	1 oz twice a week	Available through doctors only. See chapters 6 and 8.
Nattokinase and lumbrokinase	Nattokinase: 4,000 units a day. For strokes, 6,000 units. Lumbrokinase: Two 20 mg capsules thirty minutes before meals, three times daily for four weeks. Then one capsule three times daily.	You can omit these supplements if you do not have toxic blood, indicated by elevated homocysteine, fibrinogen, and Lp(a), which put you at higher risk for clotting.
Vitamin C	At least 1,000 mg	

<i>Supplement</i>	<i>Your Daily Dosage</i>	<i>Comments</i>
B-complex vitamins		Usually a multi contains enough of the B-complex factors. You may need to take extra folic acid, vitamin B-6, and vitamin B-12 if you have elevated homocysteine. Take extra niacin if you have low HDL.
Vitamin E	200 IU	A multi usually has vitamin E in it, but we recommend you take a full-spectrum vitamin E supplement containing mixed tocopherols, preferably with tocotrienols.
Garlic	1,000 mg	We recommend high-allylicin forms.
Vitamin K-2	150 mcg	Available in early 2007 in health food stores and online at www.drstinatra.com .
Optional L-lysine L-proline	2,000 mg twice daily 1,000 mg twice daily	For individuals with high Lp(a), rapid disease progress and blockages, and repeated cardiovascular events. Lp(a) does not come down in blood tests, but patients improve dramatically.

<i>Supplement</i>	<i>Approximate Cost per Month</i>
Multivitamins/minerals, including B vitamins and antioxidants	\$25
Niacin (vitamin B-3)	\$15
Fish oil	\$20
Magnesium	\$15
CoQ10	\$40
L-carnitine	\$25
D-ribose	\$40
L-arginine	\$15 in bulk
Nattokinase	\$25
Vitamin C	\$10
Vitamin E	\$15 (if separate from a multivitamin)
Vitamin K-2	\$20
Total	\$265
Optional:	
Essential phospholipids with EDTA	\$200 per month for the first year; \$50 per month for the second year and beyond
Bioidentical testosterone	\$10–80, depending on form
L-lysine	\$20
L-proline	\$10

<i>Supplement</i>	<i>Approximate Cost per Month</i>
Multivitamins/minerals with B vitamins and antioxidants	\$25
Fish oil	\$20
Magnesium	\$15
CoQ10	\$25–\$40
Vitamin C	\$10
Total	\$95–\$110

What You Can Do to Normalize Abnormal Scores

<i>Blood Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>	<i>Interventions That Work for Us</i>
CoQ10	_____	1.0–1.8 µg/ml	Hydrosoluble CoQ10, 30–60 mg. Therapeutic dosages are higher. See the footnote for targeted blood levels when illness is present.
CRP	_____	<0.8 mg/L	Statin drugs. Exercise. Low-dose aspirin. Fish oil, 2 g. Antioxidants. Nattokinase, 2,000 units. Hydrosoluble CoQ10, 30–60 mg.

<i>Blood</i>			<i>Interventions That</i>
<i>Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>	<i>Work for Us</i>
Ferritin (iron)	_____	Women <80 µg/L Men _____ <90 µg/L	If more than 100 µg/L, donate blood one to three times a year. Do not take more than 500 mg of vitamin C per day until your ferritin level has decreased. If your level is more than 400, ask your doctor to check you for genetic hemochromatosis.
Fibrinogen	_____	180–350 mg/dl	Fish oil, 1–2 g. Garlic or bromelain, 500–1,000 mg. Drink ginger and/or green tea. Lumbrokinase or nattokinase.
Homocysteine	_____	<9 µmol/L	Folic acid, 800 mcg. Vitamin B-6, 40 mg. Vitamin B-12, 200 mcg. Trimethylglycine, 1,000 mg. For individuals with genetic defects in folic acid metabolism, use Metafolin, a patented and highly absorbable form of folic acid (see supplement section in appendix A). Eat more beets and broccoli.
Lp(a)	_____	<30 mg/dl	Niacin, 250–500 mg three to four times daily (may cause flushing). Vitamin C, 500–1,000 mg or more. Fish oil, 1–2 g. Avoid foods with trans-fatty acids. Women: Consider natural estrogen. Men: Avoid soy, and consider testosterone. Bioidentical estrogen and testosterone lower Lp(a).

<i>Blood Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>	<i>Interventions That Work for Us</i>
Total cholesterol	_____	125–200 mg/dl	Reduce weight. Exercise. Increase fiber in diet. Eat soy products, oats, and oatmeal. Chromium, 200 mcg. Hydro-soluble CoQ10, 90–120 mg. Tocotrienol (a form of vitamin E), 50–100 mg. Garlic, 400–800 mg. Plant sterols (phytosterols), 500–1,500 mg. Probiotics (healthy bacteria supplement). Red yeast rice extract, 1,200 mg twice daily. Flax, 2 tbsp crushed flaxseed a day in a healthy shake with 8 oz. soy milk or sprinkled on cereal or salad as a source of fiber. Promotes bowel movements that carry cholesterol out of the body.
HDL	_____	Women 40–120 mg/dl	Assess for insulin resistance if low. Reduce weight. Exercise. Eat fewer high-glycemic carbohydrates. Niacin, 500–1,000 mg. L-carnitine, 500–1,000 mg.
	_____	Men 35–70 mg/dl	
LDL	_____	70–130 mg/dl	See Total cholesterol. LDL greater than 130 in presence of documented coronary artery disease indicates that statin therapy needed.
Oxidized LDL	_____	0–650 units	Elevated oxidized LDL, along with high fibrinogen and CRP, indicates the presence of an advanced inflammatory process. If this is the case, initiate interventions to reduce inflammation. We recommend statin therapy with fish oil, 2 g, and a program of

<i>Blood Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>	<i>Interventions That Work for Us</i>
Oxidized LDL (cont'd)			antioxidants. Exercise and stress management are essential. Follow up with your physician to assess progress.
Triglycerides	_____	50–180 ml/dl	Weight reduction. Exercise. Restrict carbohydrates. Fish oil, 2–3 g. L-carnitine, 1–2 g. Reduce alcohol intake.
AA/EPA ratio	_____	1.5–3	A score greater than 3 indicates the presence of inflammation. The higher the number, the more inflammation. If your omega-6 to omega-3 fatty acid ratio is too high, as reflected by the levels of arachidonic (AA) and eicosapentaenoic (EPA) fatty acids, there's not enough anti-inflammatory EPA in the body to neutralize the proinflammatory AA. We see very unhealthy scores, sometimes as high as 20. Follow the diet suggestions in chapter 9. Also, take 2–3 g of fish oil daily to help neutralize inflammation. In some cases, more may be needed.

Tests for Insulin Resistance

Fasting blood sugar	_____	<100 mg/dl	Weight loss. Exercise. Restrict carbohydrates, especially sugary high-glycemic carbs (see appendix B). Use lower-glycemic carbohydrates, such as broccoli, chickpeas, and lentils, to lower insulin levels.
---------------------	-------	------------	---

<i>Blood Component</i>	<i>Your Level</i>	<i>Healthy Zone</i>	<i>Interventions That Work for Us</i>
Fasting blood sugar (cont'd)			Specific supplements: alpha-lipoic acid, 100–300 mg; hydrosoluble CoQ10, 60–90 mg; cinnamon, 1,000 mg; gymnema leaf extract, 200–400 mg; magnesium, 400–800 mg; chromium picolinate, 100–200 mcg.
Fasting insulin	_____	<17 µg/L	See Fasting blood sugar.
Hemoglobin A1C	_____	<6% of total HGB	See Fasting blood sugar. If weight reduction, exercise, and supplements do not improve percentage, consider pharmaceutical therapy. Ask your physician about Metformin, a glucose-lowering medication.

Aim to reach or improve these CoQ10 blood levels when the following medical conditions are present:

2.0–2.5 µg/ml	High blood pressure, mitral valve prolapse (MVP), arrhythmia, diabetes, or periodontal disease
2.5–3.5 µg/ml	Mild to moderate heart failure, chronic fatigue syndrome, or angina
>3.5 µg/ml	Severe heart failure

<i>Supplement</i>	<i>Your Daily Dosage</i>	<i>Comments</i>
High-potency multivitamin/mineral with B vitamins and antioxidants	Follow label instructions.	Avoid one-a-day formulas. The most effective formulas have you taking several or more capsules/tablets a day. That's what it takes to include the many elements necessary to help protect your arteries and heart from inflammation.
Fish oil	1–2 g	Be sure that the product you take is free of contaminants.

<i>Supplement</i>	<i>Your Daily Dosage</i>	<i>Comments</i>
Magnesium	400 mg if not present in your multivitamin	Helps prevent the ravages of everyday stress. Keeps your artery walls relaxed.
Vitamin C	At least 500 mg if not present in your multivitamin	An important antioxidant that keeps your tissues strong, including your artery walls.
CoQ10	25–50 mg	For maximum bioavailability, choose a hydrosoluble form.

Rapid Inducers of Insulin

Glycemic Index Greater than 100 Percent

GRAIN-BASED FOODS

Cornflakes
French bread
Instant rice
Microwaved potatoes
Millet
Puffed rice
Puffed wheat

SIMPLE SUGARS

Glucose
Maltose
SNACKS
Puffed rice cakes
Tofu ice cream

Glycemic Index between 80 and 100 Percent

GRAIN-BASED FOODS

Brown and white rice
Grapenuts
Instant mashed potatoes
Muesli
Oat bran
Rolled oats
Shredded wheat
Whole-wheat bread

FRUITS

Apricots
Bananas
Mangoes
Papayas
Raisins
SNACKS
Corn chips
Ice cream (low-fat)
Rye crisps

VEGETABLES

Carrots
Corn
Parsnips

Moderate Inducers of Insulin

Glycemic Index between 50 and 80 Percent

GRAIN-BASED FOODS

All-bran cereal

All pastas, including white and whole-wheat spaghetti

Pumpernickel bread

FRUITS

Oranges

Orange juice

VEGETABLES

Baked beans

Garbanzo beans (canned)

Navy beans

Peas

Pinto beans

SIMPLE SUGARS

Lactose

Sucrose

SNACKS

Candy bar*

Potato chips (with fat)*

Low Inducers of Insulin

Glycemic Index between 30 and 50 Percent

GRAIN-BASED FOODS

Barley

Oatmeal (slow-cooking)

Whole-grain rye bread

FRUITS

Apples

Apple juice

Applesauce

Grapes

Peaches

Pears

VEGETABLES

Black-eyed peas

Chickpeas

Kidney beans (dried or canned)

Lentils

Peas

Tomato soup

DAIRY PRODUCTS

Ice cream (high-fat)*

Milk (skim)

Milk (whole)*

Yogurt

Glycemic Index 30 Percent or Less

FRUITS

Cherries

Grapefruits

Plums

VEGETABLES

Soy beans

SNACKS

Peanuts*