

STATISTICS ON HEART DISEASE

Cardio Vascular Disease is the No 1 cause of death in America. Up to 1 million Americans will die of CVD in 2002. According to statistics released by the American Heart Association (AHA):

At least 58,800,000 million Americans (i.e. 1 person in 4) suffer from some form of heart disease.

- 50 million suffer from high blood pressure
- 12 million suffer from coronary heart disease
- 6.2 million suffer from angina pectoris
- 7 million suffer from heart attack
- 4.4 million suffer from stroke
- 1.8 million suffer from rheumatic heart disease/fever
- 1 million suffer from congenital cardiovascular defects
- 4.6 million suffer from congestive heart failure

More American heart facts

- Of the 50 million Americans who have high blood pressure (the leading contributor to heart disease) 35 percent don't know they have it. High blood pressure is easily detectable and usually controllable.
- Almost 1 out of every 2.4 deaths in the USA result from CVD.
- Since 1900, CVD has been the leading cause of death in every year but one - 1918.
- About every 29 seconds an American will suffer a coronary event.
- About every 60 seconds, someone dies from one.
- At least 250,000 people die of heart attacks each year before they reach a hospital.
- Half of all heart attack victims wait more than two hours before getting help.
- CVD is the cause of more deaths than the next 7 causes of death put together.
- It is a myth that heart disease is a man's disease. In fact, cardiovascular diseases are the number one killer of women (and men). These diseases currently claim the lives of more than a half a million females every year - more than the next 16 causes of death put together.
- In 57 percent of men and 64 percent of women who died suddenly from CVD, there were no previous symptoms of the disease.
- The cost of CVD in 1999 is estimated at \$286.5 billion - an increase of about \$12 billion from last year.
- Stroke killed 159,942 people in 1996.
- On average, someone in the US suffers a stroke every 53 seconds.
- On average, someone dies from stroke every 3 minutes 20 seconds.

Heart-Attacks and Strokes

A *heart-attack* occurs when we develop a blockage in one of the arteries supplying blood to our heart. A *stroke* is the result of a blockage in one of the arteries to our brain. In either case, the story is the same. Lack of blood stops the heart or brain from working so it shuts down and we collapse.

How does an arterial-blockage occur?

It occurs as a result of a combination of things.

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- Over time, the wall of our artery becomes diseased or *corroded*
- As our blood passes through this corroded section, it dumps some of the *fat* which it is carrying, and this fat forms a bulge in the wall of the artery. Result? In the same

way that double-parking narrows a road and causes a slowdown in the flow of traffic, this fatty bulge narrows the width of the artery and slows down the flow of blood as it passes around it.

- *If* the blood flow gets too slow, and *if* tiny bits break off the bulge in the wall clogging up the blood even more the blood will form a spontaneous clot, completely blocking the artery.

Causes and Risk-factors Of Heart Attacks And Strokes

Things We Can't Change

Certain factors increase the risk of a heart attack. Some can be changed, while others are inherited. The major factors individuals can't change include: age, gender and heredity.

Age

Four out of five deaths from the disease are in people over age 65. In this age group, women are twice as likely to die from heart attacks as men.

Gender

- Women are more likely to die from heart disease than from all forms of cancer, chronic lung disease, pneumonia, diabetes, accidents and AIDS combined.
- However, men have a greater life-long risk of heart attack, and experience attacks earlier in life.

Heredity

You're at greater risk if your parents had heart disease.

Things We Can Change

The major factors individuals can change include: smoking, high blood cholesterol levels, high blood pressure, obesity, physical inactivity and being overweight.

Smoking

Smokers have twice as high a risk of heart attack as nonsmokers, and have two to four times the risk of sudden cardiac death. Smokers are also more likely to die quickly and suddenly than nonsmokers.

High blood pressure

African-Americans have the highest death rates from the disease. This may be due to their higher rates of high blood pressure; about 1 in 3 black adults have high blood pressure, compared to about 1 in 4 white adults. High blood pressure is also generally more severe among elderly African-Americans than elderly whites, leading to more cases of strokes, heart disease and kidney failure.

Cholesterol and cholesterol levels

Cholesterol is a waxy substance found in all parts of your body. It helps make cell membranes, some hormones, and vitamin D. Cholesterol comes from two sources: your body and the foods you eat.

- Blood cholesterol is made in your liver. Your liver makes **all** the cholesterol your body needs.
- Dietary cholesterol comes from animal foods like meats, whole milk dairy foods, egg yolks, poultry and fish.
- Eating too much dietary cholesterol can make your blood cholesterol go up. Foods from plants, like vegetables, fruits, grains, and cereals, do not have any dietary cholesterol.

The 2 types of cholesterol - (1) LDL (bad), (2) HDL (good)

Like oil and water, cholesterol and blood do not mix. So, for cholesterol to travel through your blood, it is coated with a layer of protein to make a "lipoprotein." The two lipoproteins are low density lipoprotein (LDL) and high density lipoprotein (HDL).

- LDL-cholesterol carries most of the cholesterol in the blood. When too much LDL-cholesterol is in the blood, it can lead to cholesterol buildup in the arteries. That is why LDL-cholesterol is called the "bad" cholesterol.
- HDL-cholesterol helps remove cholesterol from the blood and helps prevent the fatty buildup. This is why HDL-cholesterol is called the "good" cholesterol.

High cholesterol increases the risk of coronary heart disease. It makes the heart pump more and faster, causing it to weaken. The risk is compounded with other factors, such as smoking and high blood pressure. On the average, each of these doubles your chance of developing heart disease. Therefore, a person who has all three risk factors is eight times more likely to develop heart disease than someone who has none. Diabetes, obesity and physical inactivity are other factors that can lead to coronary heart disease.

Things That Affect Blood Cholesterol

Your blood cholesterol level is influenced by many factors, including:

What you eat

High intake of saturated fat, dietary cholesterol, and excess calories leading to overweight leads to increased blood cholesterol levels.

Warning!

It is now universally recognized that a diet which is high in fat, particularly saturated fat, and low in complex carbohydrates, fruit and vegetables increases the risk of chronic diseases - particularly heart disease, stroke and cancer.

Overweight

Being overweight can make your LDL-cholesterol level go up and your HDL-cholesterol level go down.

Exercise

Increased physical activity lowers LDL-cholesterol and raises HDL-cholesterol levels.

Heredity

Your genes partly influence how your body makes and handles cholesterol.

Age and Sex

Blood cholesterol levels in both men and women begin to go up around age 20. Women before menopause have levels that are lower than men of the same age. After menopause, a woman's LDL-cholesterol level goes up - and so her risk for heart disease increases.

Exercise

Individuals who don't exercise and/or are obese also put themselves at greater risk. Excess weight strains the heart; influences blood pressure, blood cholesterol and tri-glyceride levels; and increases the risk of diabetes.

Diabetes

Diabetes also increases the risk of heart disease. Heart disease kills more than 80% of people with diabetes.

Stress

Stress may also contribute to the development of heart disease, because people may overeat, exercise less or smoke more when they're under stress.

WOMEN AND HEART DISEASE

Since 1984, heart attack, stroke and other cardiovascular diseases have killed more women than men.

Women who snore regularly may increase their risk of heart attack or stroke by 33% notes a researcher from the Harvard School of Public Health of Cambridge, Massachusetts. A temporary shortage of oxygen during snoring can activate the sympathetic nervous system, like heart rate and breathing, possibly leading to high blood pressure.

More than 1 out of 5 women have some form of cardiovascular disease. Cardiovascular diseases kill more women than all forms of cancer, chronic lung disease, pneumonia, diabetes, accidents and AIDS combined. In 64% of women who died suddenly of coronary heart disease, there were no previous symptoms of this disease.

What is a heart-healthy diet?

A heart-healthy diet is a diet high in vitamin C, low in sodium, cholesterol, and fat. Foods that best meet these requirements are whole grains, fruits, and vegetables. A diet high in sodium, fat and cholesterol is associated with higher blood pressure, increased weight, and elevated blood cholesterol levels, all of which increase the chances that atherosclerosis will occur.

Bad News about heart disease

- Individuals suffering from heart disease are at risk of having a stroke.
- Menopause increases a woman's risk for heart disease.
- When a woman has a heart attack, she has a poorer chance of survival than a man does. The poorer chance of survival is largely because women usually have vague symptoms that can result in delayed care.
- Heart disease kills more women each year than all forms of cancer, chronic lung disease, pneumonia, diabetes, accidents and AIDS combined.
- Individuals who suffer from depression are three to four times more likely to die of cardiac causes than individuals who do not suffer from depression.
- Heart attacks and strokes could be an early form of scurvy.

Heart Disease in the News

According to the National Heart Foundation, winter is the most dangerous season for people with all types of heart conditions. Why? Researchers think respiratory infections like the flu, pneumonia, and bronchitis pose a special threat for people with heart conditions.

Heart Disease Statistics

- Every 34 seconds a person in the United States dies from heart disease.
- More than 2,500 Americans die from heart disease each day.
- Every 20 seconds, a person in the United States has a heart attack.
- At least 250,000 people die of heart attacks each year before they reach a hospital.
- Studies show that under-educated people are more likely to suffer heart attacks.
- The countries with the highest death rates from heart disease are the Soviet Union, Romania, Poland, Bulgaria, Hungary, and Czechoslovakia. The countries with the lowest are Japan, France, Spain, Switzerland, and Canada.
- Almost 6 million hospitalizations each year (in the United States) are due to cardiovascular disease.
- Since 1900, Cardio Vascular Disease has been the number 1 killer in the United States for every year but 1918.

HOW DOES OBESITY HARM MY HEALTH?

Obesity is linked to many serious health problems, including heart disease, high blood pressure, strokes, diabetes, and certain kinds of cancer.

- **Heart disease:** Fat is body tissue, just like muscle or bone, and it needs to be supplied with blood. As you gain weight, more blood vessels must be created and more blood must be pumped to service this new tissue. For every pound of fat that you gain it takes approximately 1 mile of blood vessels to supply it. Think of the strain on your poor heart if you gain 10, 20, or 50 pounds of excess fat. The obese also tend to have high levels of blood fats, which can build up on artery walls and narrow blood flow to the heart. So the heart has to do more work but gets less nourishment – and that’s a recipe for heart trouble.
- **High Blood Pressure:** As the heart works harder to send blood through miles and miles of excess fat tissue, it has to beat stronger, and more forcefully. This sends blood pounding against artery walls, damaging them and causing little cracks or scratches. Within these cracks, fatty, waxy material called plaque can begin to accumulate. This provides a foothold for the buildup of more plaque, which can eventually clog up an artery.
- **Strokes:** As the arteries clog up with plaque, they can become blocked. Or a piece of plaque may break off and float through the bloodstream until it reaches a smaller blood vessel and forms a blockage there. If a blockage forms in an artery that feeds part of the brain, that part of the brain may be damaged or destroyed. This is called a stroke.
- **Diabetes:** A substance called insulin helps sugar from the blood enter the body’s hungry cells, where it is used for fuel. But too much fatty tissue makes it difficult for the body to “listen” to the insulin, so the blood sugar just floats on by the hungry cells and builds up in the bloodstream. The cells don’t get fed, and the excess sugar in the blood can damage the kidneys, eyes, heart, and nerves.
- **Cancer:** Obesity increases the risk of developing cancers of the colon, breast (after menopause), uterus, kidney, and esophagus and may also be linked to cancers of the gallbladder, ovaries, and pancreas. It’s estimated that 14 percent of deaths from cancer in men and 20 percent of deaths in women are due to overweight and obesity.

HEART HEALTHY DIET

A heart healthy diet begins by paying close attention to what you eat. You can reduce your chance of developing atherosclerosis, the blocked arteries that cause heart disease with a heart healthy diet. If the artery-clogging process has already begun, you can slow the rate at which it progresses.

Feed Your Heart Well

Feeding your heart well is a powerful way to reduce or even eliminate some [risk factors](#). Adopting a heart-healthy nutrition strategy can help reduce total and LDL cholesterol (the "bad" cholesterol), lower blood pressure, lower blood sugars, and reduce body weight. While most dietary plans just tell you what you CAN'T eat (usually your favorite foods!), the most powerful nutrition strategy helps you focus on what you CAN eat. In fact, heart disease research has shown that adding heart-saving foods is just as important as cutting back on others. Here are nine nutrition strategies to reduce your risk:

1. **Eat more fish.** Fish is a good source of protein and other nutrients. It also contains omega-3 fatty acids, which may help reduce the risk of heart disease and stroke.
2. **Eat more vegetables, fruits, whole grains, and legumes.** These beautiful and delicious wonders of nature may be one of the most powerful strategies in fighting heart disease.
3. **Choose fat calories wisely.** Keep these goals in mind:
4. **Limit total fat grams.**
5. **Eat a bare minimum of saturated fats and trans fats** (for example, fats found in butter, margarine, salad dressing, fried foods, snack foods, sweets, and desserts).
6. **When you use added fat, use fats high in monounsaturated fats** (for example, fats found in olive and peanut oil).
7. **Eat a variety -- and just the right amount -- of protein foods.** Commonly eaten protein foods (meat, dairy products) are among the main culprits in increasing heart disease risk. Reduce this nutritional risk factor by balancing animal, fish, and vegetable sources of protein.
8. **Limit cholesterol consumption.** Dietary cholesterol can raise blood cholesterol levels, especially in high-risk people. Limiting dietary cholesterol has an added bonus: You'll also cut out saturated fat, as cholesterol and saturated fat are usually found in the same foods. Get energy by eating complex carbohydrates (whole-wheat pasta, sweet potatoes, whole-grain breads) and limit simple carbohydrates (regular soft drinks, sugar, sweets). If you have high cholesterol, these simple carbohydrates exacerbate the condition and may increase your risk for heart disease.
9. **Feed your body regularly.** Skipping meals often leads to overeating. Eating five to six mini-meals is the best way to control blood sugars, burn fat calories more efficiently, and regulate cholesterol levels.

Other Heart-Healthy Strategies

- **Reduce salt intake.** This will help you control your blood pressure.
- **Exercise.** The human body was meant to be active. Exercise strengthens the heart muscle, improves blood flow, reduces high blood pressure, raises HDL cholesterol ("good" cholesterol), and helps control blood sugars and body weight.
- **Hydrate.** Water is vital to life. Be sure to stay adequately hydrated.
- **Enjoy every bite.** Your motto should be dietary enhancement, not deprivation. When you enjoy what you eat, you feel more positive about life, which helps you feel better. An added bonus is that you eat less when you eat food you love, and that helps control weight and reduce cholesterol levels.

Source: <http://women.webmd.com/guide/heart-healthy-diet>

HOW MUCH IS A SERVING

When you're trying to follow an eating plan that's good for your heart, it may help to know how much of a certain kind of food is considered a "serving." The following table offers some examples.

SERVING SIZES

Food/amount	Serving/exchange	The size of
1 cup cooked rice or pasta	2 starch	tennis ball
1 slice bread	1 starch	compact disc case
1 cup raw vegetables or fruit	1 fruit or vegetable	baseball
1/2 cup cooked vegetables or fruit	1 fruit or vegetable	fist
1 ounce cheese	1 high-fat protein	pair of dice
1 teaspoon olive oil	1 fat**	half dollar
3 ounces cooked meat	3 protein	deck of cards or cassette tape
3 ounces tofu	1 protein	deck of cards or cassette tape

* Remember to count fat servings that may be added to food while cooking, such as oil, butter or shortening.

Source: <http://women.webmd.com/guide/heart-healthy-diet?page=2>



To Your Heart Health

***By Louis Ignarro, Ph.D.
Nobel Laureate in Medicine***

Your cardiovascular system is the driving force behind Cellular Nutrition. Over 100,000 miles in length and equipped with nearly six-trillion endothelial cells, your blood vessels produce the Nitric Oxide that supports Cellular Nutrition. Endothelial-derived Nitric Oxide functions in many important ways to support the cardiovascular and circulatory system. Endothelial damage, from a poor diet, obesity and lack of exercise, results in deficient Nitric-Oxide production and, therefore, increased risk of cardiovascular disease. Fortunately, there are easy ways to make your endothelium healthy by adjusting your diet, engaging in moderate exercise and taking Niteworks®.

How does Nitric Oxide work?

Nitric Oxide, also known as NO, is the body's most widespread signaling molecule. NO promotes Cellular Nutrition by facilitating blood flow to every cell in the body. Because NO expands the diameter of the arteries, more nutrients are delivered to the cells and more waste products are removed from the cells. Nitric Oxide provides Cellular Nutrition to all organs of the body and also protects these organs against injury and disease caused by exposure to oxidants, a condition known as "oxidative stress." NO is the body's most potent antioxidant, protecting cells against free radical damage. In this regard, NO functions just like Vitamins E and C.

NO deficiency and Endothelial Dysfunction cardiovascular disease is the leading cause of morbidity and untimely death in the U.S. and is sometimes associated with NO deficiency. The diseases resulting from NO deficiency include hypertension, stroke, atherosclerosis, heart attacks, diabetes, Alzheimer's disease, gastrointestinal ulcers and erectile dysfunction. A healthy vascular endothelium is essential to a healthy cardiovascular system because it is required for normal NO production and action. Vascular-endothelial dysfunction leads to decreased NO production and increased oxidative stress, creating a vicious cycle that promotes further endothelial dysfunction.

Diet improves heart health

Another way to keep your endothelium healthy is through diet. A sensible diet that is low in fats and carbohydrates, but rich in proteins, will go a long way in promoting cardiovascular health. Decreased fat intake greatly reduces the body's production of destructive free radicals and decreased dietary carbohydrates limit the intake of calories. Eating a high-protein diet maintains muscle mass and energy levels. The combination of high protein plus low carbohydrates and fats can result in substantial weight loss, which further promotes a healthy cardiovascular system.

A winning combination

The three lifestyle changes outlined—mild to moderate exercise, a high-protein diet and Niteworks®—have something in common: they all play a role in enhancing the production and action of endothelium-derived Nitric Oxide. For this reason, exercise, diet and Niteworks® are a winning combination for maintaining and improving your endothelial health—and a healthy endothelium means a healthy heart. When you combine their results, you can easily see how your overall health and general well-being can improve.

INTRODUCING NITWORKS!

¹Comments are from Cheryl Wisdom's newsletter: "Herbalife is taking Wellness to a Whole New Level! Introducing Niteworks!"

How would you like:

- Absolutely unbelievable energy
- Better, more restful sleep
- Feeling 10 years younger
- A healthier cardiovascular system
- Lower blood pressure
- Superior mental clarity and improved memory
- Advanced cancer protection
- Increased stamina
- Decreased risk of stroke
- Waking up feeling refreshed and revitalized
- Stopping the aging process in its tracks
- Enhanced immune system function
- Alzheimer's disease prevention
- Better blood flow and general circulation
- Improved function of all your vital organs
- The benefit of 30 years of scientific research that lead to a Nobel Prize!

Dr. Ignarro formulated Niteworks based on his special understanding of the pharmacology of Nitric Oxide (NO) and cardiovascular health. Niteworks contains an amino acid complex for NO production, an antioxidant package for NO protection, and other heart-healthy ingredients. The amino acid complex includes: L-arginine, which is transported into endothelial cells to produce NO, and L-citrulline, which is transported by a different mechanism and then is recycled into L-arginine, creating more NO.

²The use of L-citrulline in Niteworks makes it unique compared to other products in the market. Niteworks contains a patented, proprietary blend of arginine and citrulline. Herbalife told us that they have purchased the entire world's supply of high quality citrulline so that we will continue to have the best, most effective product on the market.

Niteworks exclusive formula boosts Nitric-Oxide action in three ways:

- L-Arginine is used by the body to produce Nitric Oxide*
- L-Citrulline is recycled by the body into L-Arginine*
- Vitamins C & E extend the activity and life span of Nitric Oxide in the body*
- Other key ingredients include:
- Folic Acid and bioavailable calcium folinate to reduce homosysteine*
- Alpha Lipoic Acid which helps recycle these vitamins*
- Lemon balm, an herb that assists in relaxation*

³Exercise increases the production of NO. But even with a regular exercise regimen, the body may not produce sufficient quantities of NO to maintain normal levels in unhealthy cells. Natural sources of L-arginine can include nuts, fruits, dairy and meats, while natural sources of L-citrulline can include melon rinds and cucumbers. A low-fat diet also helps

increase the body's production of NO. However, it can be difficult to get as much of the amino acids from natural sources as is contained in Niteworks.

Due to the high levels of antioxidants in Niteworks, Herbalife is one of the first companies to offer a product bearing FDA's new qualified antioxidant health claim that 'consumption of antioxidant vitamins may reduce a risk of certain kinds of cancer.'

Niteworks is taken at night, when the body's own production of NO is likely to be at its lowest. It is a lemon-flavored powder that is mixed with water or juice before bedtime.

Niteworks can be used anytime! Many folks are using Niteworks as a sports drink. James Craig ran his first half marathon (13.1 miles) last year while using Niteworks every night. He had no muscle soreness during his training, which he said was incredible! He trained for 3 ½ months to get up to 13 miles. That next spring he ran another half marathon and got up to 11 miles in 1 month during that training. He used Niteworks as a sports drink ½ hour before a run and also at night. Here is his recipe:

- 8 oz water
- 1 tsp Herbal Concentrate (any flavor)
- 2 scoops Niteworks
- 2 capfuls of Herbal Aloe Concentrate
- 4-6 oz fruit juice.

Michael Brock noticed his endurance and stamina increased dramatically in a short period of time. He doesn't get tired or suffer from soreness anymore like any athlete would when working out at a very high intensity rate. He found that Niteworks helps prevent lactic acid from building up in the body; a serious breakthrough for anyone who is serious about exercising and would like to increase their stamina.

Because Niteworks acts as a bronchodilator to help the tubes in the lungs expand and bring in more air, others are using it to successfully combat allergy-induced asthma. Studies have shown that people with asthma, especially babies, have a deficiency of NO.

³Niteworks improved the circulation to Sara Drost's (Type I diabetic) father's legs and helped to heal an open wound on his foot that was resistant to medical intervention for 6 months earlier. Prior to that time, he had one foot amputated due to the same open wound situation. He saw dramatic changes in only one month of using Niteworks. Niteworks saved this remaining foot! Doctors were amazed at the amount of circulation that was getting to his foot! They canceled his scheduled amputation! Oh, his blood sugar has been more level and consistent in that one month than it's been in 5 years!

About Louis Ignarro, Ph.D.

In addition to being a Nobel Laureate, Dr. Ignarro received the Basic Research Prize of the American Heart Association for his outstanding contributions to the advancement of cardiovascular science in 1998. Dr. Valentin Fuster, then president of the American Heart Association, called the nitric oxide discovery "one of the most important in the history of cardiovascular medicine." Among his many distinctions, he was inducted into the National Academy of Sciences in 1999 and into the Academy of Arts and Sciences the following year. Dr. Ignarro is a member of Herbalife's Scientific Advisory Board.

1 Wisdom, C., M.S., R.N., Success Forum, Vol. 8, No. 3.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

2 Wisdom, C., M.S., R.N., Success Forum, Vol. 9, No. 3.

3 Wisdom, C., M.S., R.N., Success Forum, Vol. 10, No. 1