

High Density Lipoproteins

Introduction

High Density Lipoprotein cholesterol is a very potent element of the human body. It allows for lipids to be transported within the bloodstream. I chose to write about HDL cholesterol levels because rather than being a health issue, High Density Lipoprotein cholesterol helps the body, and helps to benefit cardiovascular health.

Rather than focusing on ways in which the body is tainted, destroyed, or corroded, I chose to focus on something more positive. High Density Lipoprotein cholesterol benefits the body, rather than working against it.

Section 1: Background and Problem Statement

Web site #1 Name: What Do My Cholesterol Levels Mean?

Web address: <http://ghr.nlm.nih.gov/glossary=highdensitylipoproteins>

Background Information:

Healthy People 2010 did not provide any information concerning High Density Lipoprotein cholesterol. High Density Lipoprotein cholesterol is considered to be our bodies' "good" cholesterol, in the sense that it arguably lowers one's risk of heart attack and stroke. The higher your High Density Lipoprotein cholesterol levels are, the more beneficial it is to your body.

You can raise your High Density Lipoprotein cholesterol levels by exercising, eating healthily, and abstaining from things like smoking.

High Density Lipoprotein cholesterol levels are considered low if they are less than 40 mg in men and less than 50 mg in women.

Web site #2 Name: LDL and HDL Cholesterol: What's Bad and What's Good?

Web address: <http://www.americanheart.org/presenter.jhtml?identifier=180>

Background Information:

High Density Lipoprotein cholesterol, as opposed to Low Density Lipoprotein cholesterol, helps to protect against health risks like heart attacks. Medical experts believe that High Density Lipoprotein cholesterol carries dangerous fatty acids away from arteries, and out of the body through means of the liver. High Density Lipoprotein cholesterol is renowned for being beneficial as opposed to dangerous.

Web site #3 Name: Cholesterol Levels

Web address: <http://www.americanheart.org/presenter.jhtml?identifier=4500>

Background Information:

Cholesterol levels are a potent element in determining one's health. When the High Density Lipoprotein cholesterol levels are low, it can become a major risk factor. Low HDL cholesterol levels can play a major role in causing things like heart diseases and strokes. Low High Density Lipoprotein cholesterol levels are considered less than 40 mg for men and less than 50 mg for women.

Section 2: Research

Web site #1 Name: Low HDL cholesterol is a risk factor for deficit and decline in memory in midlife: the Whitehall II study

Web address: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581752/?tool=pmcentrez>

Background Information:

In a study conducted in 2008, the relationship between lipids and verbal memory was examined. It was found that low High Density Lipoprotein cholesterol is associated with poor memory.

In this particular study, total cholesterol, High Density Lipoprotein cholesterol, and memory were measured twice, in 3,673 middle-aged male and female participants. The results of this study concluded that High Density Lipoprotein cholesterol levels are indeed associated with poor memory in middle-aged adults.

Web site #2 Name: Effects of dietary fatty acids and carbohydrates on the ratio of serum total to HDL cholesterol and on serum lipids and apolipoproteins: a meta-analysis of 60 controlled trials

Web address: <http://www.ajcn.org/cgi/content/abstract/77/5/1146>

Background Information:

Another study conducted set out to evaluate the effects of fats on High Density Lipoprotein cholesterol levels. Dietary fats increase the risk of artery and heart diseases. They also affect High Density Lipoprotein cholesterol. The conclusion of this research showed that the effects of dietary fats on total High Density Lipoprotein cholesterol differ from their effects on Low Density Lipoprotein cholesterol and that the effects of the amount and type of fat on High Density Lipoprotein cholesterol. It also concluded that Lauric acid decreased the ratio of total to High Density Lipoprotein cholesterol.

Web site #3 Name: Aging: Good Cholesterol, Good Memory

Web address: http://www.nytimes.com/2008/07/01/health/research/01agin.html?_r=1

Background Information:

In yet another study, it was discovered that people with more High Density Lipoprotein cholesterol were able to perform better on memory tests, than those with lower levels of High Density Lipoprotein cholesterol. Researchers studied the cholesterol levels of over 3,600 people, and later, proceeded to distribute tests in which volunteers were read a list of 20 words and were asked to document as many as they could remember, within a time limit. The results concluded that those with higher High Density Lipoprotein cholesterol levels were more successful at the tests than those with lower High Density Lipoprotein cholesterol levels.

Section 3: Statistics

Web site #1 Name: Plasma triglyceride level is a risk factor for cardiovascular disease independent of high-density lipoprotein cholesterol level: a meta-analysis of population-based prospective studies

Web address: <http://journals.lww.com/ejcp/Abstract/1996/04000/>

Background Information:

A study conducted set out to determine whether the relationship between triglyceride and cardiovascular disease is independent of high-density lipoprotein cholesterol.

The results of this study, gathered from “The European Journal of Cardiovascular Prevention and Rehabilitation” were as followed:

A 30% increased risk in men

A 75% increase in women.

The results of this study showed that triglyceride is a risk factor for cardiovascular diseases in both men and women, and that it is independent of High Density Lipoprotein cholesterol. The next step would be to test whether lowering plasma triglyceride would decrease the risk of cardiovascular diseases. The conclusion of this study demonstrates the necessity to continue testing.

Web site #2 Name: Gemfibrozil for the Secondary Prevention of Coronary Heart Disease in Men with Low Levels of High-Density Lipoprotein Cholesterol

Web address: <http://content.nejm.org/cgi/content/abstract/341/6/410>

Background Information:

The lowering of high serum levels of low-density lipoprotein cholesterol in people, who suffer from coronary heart disease, is beneficial. However, there is little data regarding the decisions about therapy for those with a low level of high-density lipoprotein cholesterol. A study was conducted to do just this. The results concluded that out of the 1,264 volunteers assigned to Gemfibrozil therapy, in a twelve month time span: High Density Lipoprotein cholesterol levels were 6 percent higher, Triglyceride level was 31 percent lower, and total cholesterol level was 4 percent lower than those 1,267 volunteers assigned to placebo.

Therefore, Gemfibrozil therapy resulted in a noticeable reduction in the risk of cardiovascular

events in those who have low High Density Lipoprotein cholesterol levels. We can infer from these findings that the rate of coronary events is decreased by higher High Density Lipoprotein cholesterol levels.

Web site #3 Name: Raising HDL in Clinical Practice: Clinical Strategies to Elevate HDL

Web address: http://cme.medscape.com/viewarticle/479499_5

Background Information:

In another study, smoking was explored as being associated with low High Density Lipoprotein cholesterol. Which, ironically, concluded that smoking increased High Density Lipoprotein cholesterol by 4 mg. Moderate alcohol use was also studied, and is concluded to be associated with increased High Density Lipoprotein cholesterol as well. (The term “moderate” was defined as 2-3 drinks per day for men, and 1-2 drinks per day for women)

Section 4: Consumer Information

Web site #1Name: High density lipoproteins

Web address: <http://ghr.nlm.nih.gov/glossary=highdensitylipoproteins>

Background Information:

Out of the five main groups of lipoproteins, High Density Lipoproteins are the smallest. They also contain high levels of proteins. High Density Lipoproteins remove cholesterol from the arteries and transport it back to the liver, where it is passed through the body.

Web site #2 Name: What Do My Cholesterol Levels Mean?

Web address: <http://ghr.nlm.nih.gov/glossary=highdensitylipoproteins>

Background Information:

Unlike other cholesterol levels within your body, the higher your levels of High Density Lipoproteins you have, the healthier your body is. If you have low levels of High Density Lipoproteins, (less than 40 mg for males/less than 50 mg for females) you can raise these cholesterol levels by exercising, dieting, losing excess weight, quitting smoking, etc.

Web site #3 Name: HIGH DENSITY LIPOPROTEIN CHOLESTEROL AS A PREDICTOR OF CARDIOVASCULAR DISEASE MORTALITY IN MEN AND WOMEN: THE FOLLOW-UP STUDY OF THE LIPID RESEARCH CLINICS PREVALENCE STUDY

Web address: <http://aje.oxfordjournals.org/cgi/content/abstract/131/1/32>

Background Information:

High Density Lipoprotein cholesterol is also a predictor of cardiovascular diseases. There is an “inverse relation” between cardiovascular disease mortality rates for men as well as for women.

Section 5: Solutions to the Problem (or Issue)

Web site #1 Name: LDL and HDL Cholesterol: What's Bad and What's Good?

Web address: <http://www.americanheart.org/presenter.jhtml?identifier=180>

Background Information:

High Density Lipoproteins are not a health issue unless they are too low. Low levels of High Density Lipoproteins are considered less than 40 mg in men and less than 50 mg in women; and increase the risk of cardiovascular disease, strokes, etc.

Web site #2 Name: How to Increase HDL Levels

Web address: http://cholesterol.about.com/od/aboutcholesterol/a/raise_hdl.htm

Background Information:

Because High Density Lipoproteins are good for you, what is important is to maintain a fairly high level (“high” being considered 40-60 mg) of them. Besides medication, living a healthy life style will help raise and maintain the recommended level of High Density Lipoproteins.

Web site #3 Name: How To Raise High Density Lipoprotein Levels

Web address: <http://www.dietaryfiberfood.com/cholesterol-hdl.php>

Background Information:

As previously stated, High Density Lipoproteins are only a health risk if the levels become too low. By exercising regularly for as little as 8 weeks, you can raise your High Density Lipoprotein cholesterol levels. With an increase in obesity, High Density Lipoprotein cholesterol levels are reduced, so it is important to maintain a healthy weight. Moderate alcohol intake also helps to raise High Density Lipoprotein cholesterol levels, ironically. However, cigarette smoking reduces High Density Lipoproteins and so by quitting smoking, those levels would increase.

Conclusion:

High Density Lipoproteins are good for the body, and help to protect against cardiovascular diseases. I hope that others will recognize the importance of maintaining high HDL levels, from reading this. Without the constant high levels of High Density Lipoproteins, our bodies would not be able to transport fatty acids from our arteries, through our bloodstreams, and to our livers. Rather, the acids would built up inside of our bodies, plaguing us with heart diseases heart attacks, strokes, etc. High Density Lipoprotein cholesterol levels help to protect our bodies, in portent, undeniable ways.

High Density Lipoprotein cholesterol is a very potent element of the human body. It allows for lipids to be transported within the bloodstream. I chose to write about HDL because rather than being a health issue, High Density Lipoprotein cholesterol helps the body, and helps to benefit cardiovascular health.

Rather than focusing on ways in which the body is tainted, destroyed, or corroded, I chose to focus on something more positive. High Density Lipoprotein cholesterol benefits the body, rather than working against it.

High Density Lipoproteins are the smallest and the densest of the five groups of lipoproteins. High Density Lipoproteins contain a high level of protein hence their importance. They also pick up cholesterol and move it through the bloodstream. High Density Lipoproteins benefit the body because of this ability to remove cholesterol from the arteries and transport it to the liver so that it can be passed through the body.

High Density Lipoprotein cholesterol is considered to be our bodies' "good" cholesterol, in the sense that it arguably lowers one's risk of heart attack and stroke. The higher your High Density Lipoprotein cholesterol levels are, the more beneficial it is to your body.

You can raise your High Density Lipoprotein cholesterol levels by exercising, eating healthily, and abstaining from things like smoking.

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