Understanding Cholesterol

![ldl-hdl-cholesterol-300x172[1]]()

There are three different cholesterol numbers to understand:

1. Total Cholesterol
2. LDL Cholesterol (“bad” cholesterol because it promotes plaque buildup)
3. HDL Cholesterol (good” cholesterol because it helps remove plaque)

**The GOAL is to have low LDL and a low Ratio.**

The RATIO between HDL & Total Cholesterol is the most important indicator of heart disease risk … (to discover your ratio, divide the total cholesterol by HDL cholesterol). The ratio results:

* Men ………………………………………. < 4.6
* Women …………………………………….. < 4.0
* Very Good ………………………………… 3.5
* Excellent ………………………………….. 3.0
* Fantastic (Plaque reversal) ………… 2.6

**Desired Blood Levels: Canadian mmol/L United States mg/dL**

* Total Cholesterol: (If this is high, but your HDL is good, and your ratio between HDL & Total Cholesterol is good, then ignore this number)
	+ Desirable ……………………… less than 5:17 less than 200
	+ Borderline High Risk ……… 5.17 – 6.18 200 - 239
	+ High Risk …………………….. 6.19 or more 240 or more
* LDL “Bad” Cholesterol:
	+ Desirable ……………………… less than 3.36 less than 130
	+ Borderline High Risk ……… 3.36 – 4.13 130 - 159
	+ High Risk …………………….. 4.14 or more 160 or more
* HDL “Good” Cholesterol:
	+ Desirable ……………………… 0.9 or more 60 or more
	+ High Risk ……………………... less than 0.6 less than 40
* Triglycerides
	+ Desirable ……………………… less than 1.7 less than 150

# How to increase HDL and lower LDL

* Food Choices:
	+ Avoid or Reduce Saturated fats
	+ No transfats
	+ No fried foods
	+ No processed foods (white flour, white rice, white sugar, etc.)
	+ Eat High fibre foods – apples, oatmeal, cabbage, etc., and lots of vegetables (see chia/hemp heart pudding recipe below on page 2 … it is extremely high in fibre & essential fatty acids)
	+ 3+ tablespoons of ground flaxseed each day (sprinkle on salad, yogurt, or stir into oatmeal, etc. … do not cook flaxseed). Another great SEED option is Chia seeds (see below for more information)
	+ Turmeric (curcumin is the active ingredient in turmeric) … just purchase turmeric powder and take 1 teaspoon per day … or put in empty capsules (3 capsules per day)
	+ Cinnamon … 1 to 2 teaspoons per day
	+ The Rejuvenating Body Cleanse is a very wise thing to do … it takes one week only and does not interfere with your work.
* Supplement Support
	+ Shaklee Cholesterol Reduction Complex … 2000 mg of sterols and stanols … supports the reduction of LDL cholesterol (follow the label instructions)
	+ Optimize Lecithin … emulsifies plaque in the arteries (Shaklee Lecithin soft gels recommended)
	+ Omega 3 oils (Optimal Shaklee OmegaGuard)
	+ Shaklee 180 Smoothees are a great low calorie meal replacement and contain fibre equivalent to 2 ½ bowls of oatmeal!
	+ VIVIX (from Shaklee) … beyond Resveratrol
	+ Lots of Anti-Oxidant Vitamins (Vitamin C and E and Shaklee Cinch Energy Tea) helps to reduce the LDL Cholesterol
	+ Optimize Alfalfa … creates alkalinity in the blood which reduces oxidation

**What is the TRUTH about Statin Drugs (Lipitor, Crestor, etc.)?**

Below are some of the listed side effects of Lipitor:

* Liver damage
* Muscle damage – muscle pain, weakness, cramping
* Heartburn, gas, indigestion, stomach pain, constipation, nausea
* General tiredness & weakness
* Kidney damage
* Back pain
* Headaches
* Changes in eyesight, dry eyes
* Dry skin, skin rash, hives
* Hair loss
* Memory loss

All of these side effects are as a result of the way that Lipitor reduces the normal function of the liver.

## WARNINGS: from Medical Journals and Medical Doctors

* The Journal of Clinical Investigation, December 2007; 117(12):3940-51 & Newswise, November 27, 2007 … Statins, a popular set of drugs used to lower cholesterol, can result in muscle weakness and pain, and even debilitating and life-threatening muscle damage. A new study offers the first evidence that a gene known as atrogin-1 plays a key role in statin-related muscle toxicity. Statins, such as Lipitor, Crestor, Zocor, Pavacol and Mevacor, lower cholesterol by inhibiting HMG-CoA reductase, a key enzyme in cholesterol synthesis. But they may also activate the gene atrogin-1 gene, which plays a key role in muscle atrophy. Three separate tests showed that even at low concentrations, statin drugs led to atrogin-1 induced muscle damage. As the concentration was increased, the damage increased as well.
* Ken Walker, MD, who practices medicine in Toronto, Ontario wrote an article published in the February 2007 issue of CARP Magazine. Following is a summary of some of his comments: *“A picture shows a small plane circling a huge active volcano. A passenger says ‘let’s take a closer look at the volcanic crater.’ The pilot replies, ‘It’s not worth the risk.’ The question today is, ‘Is a cholesterol-lowering drug worth the risk?’” Cholesterol lowering drugs (CLDs) work by inhibiting an enzyme required for the production of cholesterol. This enzyme is needed to make coenzymeQ10 (CoQ10), an important nutrient for cardiac function. CoQ10 has been called the ‘spark plug of our motors’.* ***It generates energy for the heart muscle*** *… and we don’t need a master’s degree to know what happens when spark plugs fail to fire in our cars. Studies show CLDs decrease CoQ10, setting the stage for a* ***FUTURE EPIDEMIC OF HEART FAILURE!*** *This trend may be already affecting heart function. Researchers at the University of Toronto studied the hearts of patients suffering from heart failure. These hearts showed decreased levels of CoQ10. Cardiac function improved when patients were given CoQ10. In 1974, the Japanese government, due to these findings, approved the use of CoQ10 to prevent and treat heart disease. Today 12 million Japanese take it … but few Canadians have ever heard of it. I may be terribly wrong, but unlike most physicians, I remain skeptical of the overall value of CLDs … but it’s a fact that these drugs have killed some patients and severely damaged livers and kidneys. After being on a CLD for six weeks, Dr. Duane Graveline, a former astronaut and aerospace researcher, developed total amnesia (not surprising, since cholesterol is a major component of the brain and other organs). As when flying over an active volcanic crater, you must always assess whether the risk of taking a CLD is worth it. Medication is never a one-way street.”* After reading articles with cautions similar to that above by Dr. Walker, many people are wisely investigating and are choosing natures options for heart health.
* ScienceDaily (Nov. 28, 2007) — **Gene Responsible For Statin-induced Muscle Pain Identified** Statins, the popular class of drugs used to lower cholesterol, are among the most commonly prescribed medications in developed countries. But for some patients, accompanying side effects of muscle weakness and pain become chronic problems and can escalate to debilitating and even life-threatening damage.Now a study led by investigators at Beth Israel Deaconess Medical Center (BIDMC), helps explain the source of these problems. Published in the December 2007 issue of The Journal of Clinical Investigation, the findings offer the first evidence that a gene known as atrogin-1 plays a key role in statin-related muscle toxicity. *"Although it is not known exactly how many of the 500 million individuals who take statins experience muscle pain and weakness, muscle symptoms are generally considered the most common side effects of these medications,"* explains co-senior author Vikas P. Sukhatme, MD, PhD, Vice Chair of Medicine for Interdepartmental and Translational Programs, Chief of the Division of Nephrology, and Chief of the Division of Interdisciplinary Medicine and Biotechnology at BIDMC.

**Lipitor Horror Stories:** (also print off the article at <http://www.bargainfishoil.com/documents/lipitordilema.pdf> and read it carefully

* + - John Mortin - 56 year old rancher – 40 mg a day for 3 years … severe cognitive problems, now on total disability … can’t buckle his sandals.
		- Merline Maynard – 56 – crippling muscle pain – 10 mg a day
		- John McGuire – 53 … 20 mg for 2 months – started experiencing blackouts
		- Kathleen Socha – 60 year old psychotherapist – extreme weakness in hands after 20 mg for 4 months … couldn’t hold a fork
		- Brenda Horton – 53 … 3 months on 10 mg of Lipitor – heart started to often skip a beat … medical doctor said it was statin-induced diastolic dysfunction.
		- Peter X (anonymous) – 62 … after taking Lipitor for 4 months, his muscles started to deteriorate dramatically. He stopped the Lipitor, but the muscle deterioration did not stop … ALS had been triggered. He died from ALS 2 years later.

**Chia Seeds**

Chia Seed





Chia/Hemp Heart Pudding/Porridge

In a one pint (2 cup) jar with a lid, add the following:

Cinnamon

* 4 tablespoons hemp hearts
* 2 tablespoons chia seeds



* 1 teaspoon to 1 tablespoon cinnamon
* handful of raisins
* ¼ cup coconut
* 3 tablespoons of Shaklee Soy Protein

Add one cup of water. Shake well and put in the refrigerators overnight

In the morning … breakfast (or lunch) is ready. Eat cold.

Chia seeds come from the desert plant Salvia hispanica, a member of the mint family that grows in southern Mexico. It was a major crop in central and southern Mexico well into the 16th century, but it was banned after the Spanish conquest because of its association with the Aztec "pagan" religion. Over the past few decades, commercial production has resumed in Latin America.

1. Are a great source of omega-3 fatty acids (even higher than flax seed) … the fats protect against inflammation and heart disease.
2. In pre-Columbian times, chia seeds were a component of the Aztec and Mayan diets and the basic survival ration of Aztec warriors … supposedly, 1 tablespoon of the seeds could sustain a person for 24 hours.
3. The Aztecs also used chia medicinally to relieve joint pain and skin conditions.

Benefits of Chia Seeds

1. Chia Seeds are nutritious
	1. High in Omega-3s
	2. Contain antioxidants, higher than that found in fresh blueberries
	3. Also contains calcium, protein, fibre and other vitamins & minerals such as phosphorus, magnesium, manganese, copper, niacin, and zinc.
2. Chia Seeds are energizing
	1. They provide energy that provides stamina & endurance
	2. Aztec warriors would take 1 single tablespoon which would sustain for an entire day
3. Chia Seeds reduces cravings
	1. 2 tablespoons provide 7 grams of fibre
	2. Chia seeds absorb a lot of water and are high in soluble fiber which causes you to feel full, therefore, reducing cravings. When the seed is exposed to liquid, the soluble fiber on the outside of the seed-shell is activated. Each seed grabs onto more than 9 times its own weight in liquid, & holds it there. The liquid isn't easy to remove so your body treats it like a food--keeping you full like a food!
4. Chia Seeds highly recommended for blood sugar, cholesterol, & blood pressure problems:
	1. The high fibre content accompanied by quality protein, has been very helpful for diabetics, helping to stabilize blood sugar
	2. The high fibre content absorbs cholesterol in the bloodstream and takes it out in your elimination, helping to reduce elevated cholesterol
	3. The high fibre content has also been very helpful in supporting the regulation of high blood pressure.
5. Chia seeds are easily digestible
	1. Chia seeds do not have to be ground up before you ingest them.
6. Chia seeds are convenient & versatile
	1. You can eat chia seeds straight from the bag, mix them with your favourite drink, add them to your cereal or salad.

Chia Fresca … a drink popular in Mexico and Central America:

* Stir 2 teaspoons of the chia seeds into 8 to 10 ounces of water (you'll end up with a slightly gelatinous liquid).
* Add lime or lemon juice
* Add natural sweetener of choice to taste (maple syrup, stevia, honey, etc.)
* and enjoy