<u>CHOLESTEROL</u> ----- <u>You Are Being Snookered by Both the</u> Health Food Industry and the Medical-Pharmaceutical Establishment

It is time to go on an anti-cholesterol crusade.

"What!?" you ask. "Half the people in the world have been marching with the cholesterol crusade for decades; they don't need any help from me!"

I don't mean a crusade against cholesterol or cholesterol-containing foods, I mean ...

A CRUSADE AGAINST THE CHOLESTEROL MYTH.

While reading this article, you should feel a sense of urgency in your obligation to help your patients know the truth about cholesterol. You may be unique among all the professionals your patients know in your grasp of the truth that:

- Elevated <u>serum</u> cholesterol is <u>not</u> a cause of heart attacks and strokes.
- Eating <u>foods</u> high in cholesterol is <u>not</u> a cause of elevated serum cholesterol, and therefore ...
- Eating high cholesterol foods is <u>not</u> a cause of heart attacks and strokes, and in fact ...
- It is the foods high in cholesterol and saturated fat (such as eggs, meat, fish, and poultry) that will actually keep serum cholesterol down to normal levels.

The origins of the cholesterol myth:

I can understand (though not condone, of course) an industry being dishonest to make a profit. What I cannot understand is how time after time, for decades and decades and decades, the majority of people fall head over heels for whatever song the pharmaceutical industry is singing this year. One perfect example to illustrate how people fall for propaganda, and how drug companies change their tune for profit, is the cholesterol farce.

I can remember back in the 1960's when only a few mavericks in the medical profession and some people in the fledgling natural health foods movement were claiming that cholesterol was a problem. The average medical doctor totally ignored cholesterolemia unless it exceeded 300. Before long, the anti-cholesterol uproar became impossible to ignore, and so the establishment condescended to acknowledge the problem of high cholesterol. Now, anything above 250 was considered a problem, and it was generally recommended that

people should avoid eating too many eggs or too much meat because of the (imagined) risk of heart disease from cholesterol intake.

Interestingly, it wasn't the medical profession that was spearheading this anti-cholesterol movement; it was the processed food industry, led in particular by the seed oil industry. Archer Daniels Midland wanted to sell an ocean of soybean oil, and thus led the charge against cholesterol in particular and saturated fat in general. Coconut and palm oils were banned from importation, and everyone "knew" that margarine was going to save our nation from what was sure to have been an epidemic of cardiovascular disease from eating dreaded saturated fat. The billions of dollars worth of propaganda from the processed food industry was enough to sway the minds and change the lifestyles of millions of Americans, but the medical-pharmaceutical establishment continued to largely ignore the perceived cholesterol threat.

Then what happened? The Statin drugs were invented, (predictably) accompanied by a paradigm shift in the establishment. Now, cholesterol was a deadly demon, and our doctors and pharmacists were going to exorcise the evil that lurked within us all from our ill-advised intake of meat and eggs.

The all-out war against cholesterol has now been waged for decades. The intensity of that war has not waned in the least despite that for at least 2 decades it has been known that cholesterol is <u>not</u> (never has been, and never will be) an independent risk factor for cardiovascular disease.

If you have been victimized by the same propaganda campaign as most of your patients, the truth that your liver produces a "deadly demon" like cholesterol may come as a shock to you. But the truth is, your liver produces 2000 milligrams of cholesterol every day. Is your liver trying to destroy you with cardiovascular disease? Of course not. Cholesterol (contrary to the case fabricated against it, first by Archer Daniels Midland, then by the pharmaceutical industry) is an absolutely essential substance, with many critical functions in the body.

The idea that ...

CHOLESTEROL IS AN ESSENTIAL SUBSTANCE ...

and not at all the dangerous devil of popular mythology, will come as a shock to virtually all your patients, but it is your obligation to help them know the truth.

Let us review what NUTRI-SPEC practitioners should already know about cholesterol, and then expand our case in support of eating eggs and other high nutrient density foods that are rich in cholesterol and saturated fat --- the

foods that are essential to a long, healthy life, and, (believe it or not,) <u>essential</u> to actually keeping the blood levels of cholesterol down.

For your patients who are convinced that high serum cholesterol is bad and low serum cholesterol is somehow healthy, enlighten them with the fact that ...

PEOPLE WITH LOW SERUM CHOLESTEROL (LESS THAN 180) HAVE THREE TIMES THE INCIDENCE OF STROKES AS THE GENERAL POPULATION.

Even William Castelli, M.D., a former director of the Framingham Heart Study (the one that originally supposedly implicated cholesterol as a problem in cardiovascular disease (CVD)) notes that ...

PEOPLE WITH <u>LOW</u> CHOLESTEROL (LOWER THAN 200) SUFFER NEARLY 40% OF ALL HEART ATTACKS.

Think of those two facts --- low serum cholesterol means that you have three times the chance of having a stroke, and, high cholesterol has been shown <u>not</u> to be significantly correlated with heart attacks since 40% of the people who have heart attacks have cholesterol that is lower than average.

The facts stated in the last two paragraphs regarding low cholesterol and the incidence of heart attacks and strokes, should alone be enough to expose the nonsensical myth that attempts to correlate high serum cholesterol with Cardio Vascular Disease.

The evidence against any relation of cholesterol to CVD has been pouring out from everywhere for many years. A study done by Gilman, et al and published in the December 24, 1997 <u>Journal of the American Medical Association found that ...</u>

THE MORE SATURATED FAT YOU EAT, THE LESS LIKELY YOU ARE TO SUFFER A STROKE.

This study found that polyunsaturated fats (the ones that the propagandists will have us believe are good for us) have no protective effect. Best of all, this study actually was able to quantify the protective effect of saturated fats:

YOUR RISK OF STROKE <u>DECREASES</u> BY 15% FOR EVERY 3% <u>INCREASE</u> IN YOUR SATURATED FAT INTAKE.

Keep in mind that this study was not published in some obscure journal, but rather the <u>Journal of the American Medical Association</u>. There is nothing more mainstream than <u>JAMA</u>, yet the medical-pharmaceutical establishment ignore these findings completely.

Here is another interesting study done by Leddy, et al and published in 1997 in <u>Medicine and Science in Sports and Exercise</u>, Volume 29. The subjects of this study were elite male and female endurance athletes, who were placed alternately on a high fat diet and then a low fat diet. On a high saturated fat diet the patients maintained low body fat, normal weight, normal blood pressure, normal resting heart rate, normal triglycerides and normal serum cholesterol levels. All their fitness and training parameters were maintained at the elite level.

When put on the low fat (high complex carbohydrate) diet, however, it was found that the low fat diet negated many of the beneficial effects that exercise is expected to produce. The athletes experienced a measurable decline in athletic performance. Most interesting, however, was that the subjects on the low fat diet actually suffered a significant drop in HDL cholesterol (the "good" cholesterol), along with higher triglycerides (both of which are significant CVD risk factors. --- In fact, the ratio of triglycerides to HDL cholesterol is probably the number one risk factor for CVD. In other words, you and your patients want high cholesterol of the HDL type, and low triglycerides.)

How many times, and in how many ways, do you have to explain to your patients that eating foods high in saturated fat and cholesterol is actually a way to <u>prevent</u> heart attacks and strokes? Remember, your typical patient has been exposed to millions of dollars worth of anti-fat, anti-cholesterol propaganda over a period of decades. So --- you must keep piling on the evidence in favor of the truth.

Here is another study: Research published (again!!!) in no less than the <u>Journal of the American Medical Association</u>, 1999; 281(15):1387-94) showed that there was absolutely no connection between eating eggs and the risk of heart disease or stroke in either men or women.

While we NUTRI-SPEC practitioners make the case for the healthful dietary fats (saturated medium chain triglycerides and cholesterol) we must spend an equal amount of time and energy exposing for our patients the lies of the seed oil industry. Margarine, mayonnaise, cooking oil, salad dressings, and anything made with corn oil, soy oil, safflower oil, canola oil, peanut oil, or any of the rest of the vegetable oils (except olive, coconut oil, or palm oil) will accelerate the aging process in general, create catabolic damage throughout the body, and will specifically cause the oxidative damage in the blood vessel walls and in the heart that precipitates a cardiovascular crisis.

A study in <u>The Journal of Lipid Research</u>, 2000;41(5):834-39), showed that eating vegetable oils in the form of either soy bean oil or margarine raised LDL (bad cholesterol) and lowered HDL (good cholesterol). Meanwhile, eating butter

(one of those "forbidden foods" saturated with cholesterol) actually lowered LDL cholesterol and raised HDL cholesterol.

All your patients with fat phobia and cholesterol paranoia need you to turn their thinking around. Here is the "cholesterol monologue" I have presented to at least a zillion patients. You would do well to memorize it, and begin offering this essential knowledge to your own patients ...

"Mrs. Jones, you've been victimized by the same propaganda campaign that has misled thousands of other people. You have been convinced that cholesterol is a vicious killer that must be conquered at all costs. It may surprise you to learn, Mrs. Jones, that cholesterol is not a terrible demon at all. In fact, cholesterol is an absolutely vital substance; you would become very weak and die without cholesterol, it is that important.

"Do you know what your brain is made out of? Cholesterol; 5% of the dry weight of your brain is made out of cholesterol. Do you know what your nerves are made out of? Cholesterol. Do you know what your body uses to make all your important sex hormones and adrenal hormones? Cholesterol. Do you know that without cholesterol to help your digestion you couldn't absorb any of your fat soluble vitamins like vitamin A and vitamin E? Did you know that every single cell in your body is surrounded by a membrane containing cholesterol, and that without that cholesterol membrane no cell in your body could function?

"Cholesterol is so important that your liver produces 2000 milligrams of cholesterol every day. And, do you know what happens if you follow the idiotic low cholesterol diet that the propaganda recommends? Your liver makes up the difference by producing more cholesterol just to be sure you have enough. High cholesterol in the blood doesn't come from eating foods high in cholesterol; it comes from a metabolism that is not efficient at handling the cholesterol you need.

"It will also interest you to know that high cholesterol in your blood is not even an independent risk factor for heart attacks and strokes. For decades it was assumed that because high cholesterol tends to occur in people with cardiovascular disease it was the <u>cause</u> of heart attacks and strokes. But research now shows that cholesterol is not a primary risk factor for cardiovascular disease. In fact, people with <u>low</u> cholesterol are three times as likely to have a stroke than the average person. And, as far as heart attacks go, nearly 40% of all people who have heart attacks actually have <u>low</u> cholesterol.

"It is triglycerides (the other blood fat), that is the primary risk factor increasing your chance of having a heart attack or stroke. Many people are surprised to learn that even though triglycerides are a fat, the unhealthy diet that raises triglycerides has nothing to do with fat intake; triglycerides (and cholesterol as well) are elevated by eating sugar. The other dietary factor that in some cases will raise cholesterol is polyunsaturated oils (the ones that the propaganda says will help prevent cardiovascular disease). Neither triglycerides nor cholesterol are elevated by eating saturated fat in general or high cholesterol foods in particular."

If you memorize this monologue and deliver it to all your patients as appropriate, you will be offering a tremendous service to those whose lives could easily have been destroyed by the seed oil/pharmaceutical propaganda machine. Now you can go one step better --- after delivering this monologue, present your patient with a copy of this article that contains all the scientific references to back up your words with irrefutable objective evidence.

Remember, as we have been saying for years, while cholesterol is <u>not</u> a primary risk factor for CVD, triglycerides are, and are probably the most significant. Recall all our discussions about triglycerides and their relation to elevated insulin levels, abdominal obesity, adult onset diabetes, and apropos of this discussion, CVD. A study published in <u>Circulation</u> (October 21, 1997), shows the result of Harvard research indicating that ...

THE 25% OF THE POPULATION WITH THE HIGHEST TRIGLYCERIDE TO HDL RATIO HAS 16 TIMES MORE HEART RELATED EVENTS THAN THE 25% WHOSE RATIOS WERE THE LOWEST.

And, as you have seen from countless other studies we have given you, high triglycerides come from excess starch and sugars in the diet.

So --- if it is triglycerides, not cholesterol, that is the true boogey man, what weapons do you have in your NUTRI-SPEC arsenal to defeat this villainous foe?

With your NUTRI-SPEC <u>Fundamental Diet</u>, your patients are half way there. By totally eliminating sweetened beverages, (including juice), along with minimizing bread, cereal, and pasta, not to mention, of course, cakes, cookies, pie, and ice cream --- any patient with high triglycerides will see a significant improvement. But your NUTRI-SPEC <u>supplements</u> are the most powerful approach to controlling the triglyceride-induced cardiovascular disease threat.

Your big guns here are your Diphasic AM and Diphasic PM, along with Taurine. As you know, your Diphasic AM and Diphasic PM are loaded with ADAPTOGENS to protect you from both pathological hyperplasia and pathological disintegration — in other words, everything needed to slow the aging process. But CVD is nothing more than accelerated aging specifically manifest in the cardiovascular system. Diphasic AM and PM and Taurine are

the most powerful agents to enlist in your patients' behalf to prevent and even reverse cardiovascular disease.

Do understand, however, that we are not saying high serum cholesterol is good, nor even that it is clinically insignificant. Quite the contrary, high serum cholesterol definitely indicates the presence of a Metabolic Imbalance. It is just that the high cholesterol component of that Metabolic Imbalance has no specific relation to the risk of cardiovascular disease. In other words, your patients with high cholesterol have problems. The elevated serum cholesterol may be an indicator of an Anaerobic Imbalance, of a Dysaerobic Imbalance, of a thyroid insufficiency, of an Electrolyte Stress Imbalance, of a Glucogenic Imbalance, and so on. High serum cholesterol definitely indicates a patient with an imbalanced body chemistry or inefficient metabolism. But:

- The elevated serum cholesterol is <u>the result</u> of the problem, <u>not</u> the <u>cause</u> of the problem.
- The Metabolic Imbalance that caused the high serum cholesterol may, indeed, increase that patient's risk for cardiovascular disease, but if it does so it is not because of the presence of elevated serum cholesterol per se, but because there will also be found elevated triglycerides, and usually <u>low HDL</u> cholesterol, elevated homocysteine, and elevated C-reactive Protein.

If the presence of cholesterol in the serum has absolutely nothing to do with the risk for heart attacks and strokes, just what <u>is</u> the pathological process involved in cardiovascular disease?

One of the most fundamental causes of atherosclerosis is not the presence of cholesterol, but the <u>oxidation</u> of cholesterol (particularly of LDL, the so-called "bad" cholesterol). Oxidized LDL is dangerous; it promotes the destruction of blood vessels by creating a chronic <u>inflammatory</u> response. Oxidized LDL can also provoke the release of metalloproteinase enzymes. These enzymes cause blood vessel destruction, partly by interfering with the HDL ("good" cholesterol) protective effective.

Another component of atherosclerosis (in addition to oxidation and inflammation) is the excess <u>proliferation</u> of cells on the inside lining of arteries; this proliferation is in response to a chronic inflammatory state. Healthy arteries are lined with a smooth layer of cells, while diseased arteries become thick and overgrown with cells.

The other component of the risk from atherosclerosis involves <u>platelet</u> <u>aggregation</u>, or the thickening or clumping together of blood cells (one important component of your Electrolyte Stress Imbalance). Thromboxane (from the Prostaglandin family) is the blood vessel constricting agent that contributes to abnormal platelet aggregation, and is a major contributor to heart attacks and strokes.

We cannot make the point strongly enough that elevated serum cholesterol is <u>not</u> an independent risk factor for cardiovascular disease. As you've seen from the study showing that 40% of people with heart attacks and strokes do not even <u>have</u> elevated cholesterol, cholesterol is worthless as a predictor of cardiovascular disease. <u>Low</u> HDL cholesterol is a valid predictor but not nearly as reliable as elevated triglycerides and elevated homocysteine --- and ...

Another almost infallible indicator of cardiovascular disease risk is none other than serum <u>C-reactive Protein</u> (CRP). C-reactive Protein has, of course, always been one of the serum tests recommended as important to compliment a NUTRI-SPEC profile. Why? It is the best indicator of a chronic inflammatory state --- particularly Dysaerobic/Catabolic inflammation.

It has now been shown that elevated C-reactive Protein is one of the best predictors of CVD risk. One series of studies shows that between 25-35 million Americans have total cholesterol within normal range, yet have above average risk of cardiovascular inflammation, which has a significant impact on heart disease risk, and which is perfectly well indicated by C-reactive Protein. Those with the highest levels of C-reactive Protein have five times the risk of developing cardiovascular disease, and seven times the risk of having a heart attack or stroke compared to subjects with normal levels. Furthermore, C-reactive Protein predicts risk of cardiovascular events even in women who have no other pertinent risk factors.

Those of us who do NUTRI-SPEC and are ever on the alert for signs of <u>estrogen stress</u>, will note that estrogen replacement therapy has been clearly shown to increase the risk of heart attack; and now it has been shown that estrogen causes C-reactive Protein to rise. The Framingham study showed a strong correlation between elevated C-reactive Protein and calcification of the coronary arteries.

[FLASH ALERT! Headline news --- Estrogen Is Convicted of Killing Thousands of Unsuspecting Women!. In the biggest medical news story in decades, the increased risk of cardiovascular disease resulting from the use of estrogen replacement therapy has been quantified. Remember, for years and years the medical/pharmaceutical establishment promoted estrogen as a protector of menopausal women from heart attacks and strokes. Research (that was published but never managed to be publicized) has shown for years that just the opposite is the case --- estrogen actually increases a woman's

chance of suffering CVD. Even the <u>Journal of the American Medical Association</u> admits that hormone replacement therapy increases a woman's chance not only of cancer, but of heart disease (a 29% increase after only 5 years) and stroke (a 41% increase) as well. This shows that the damage done by estrogen is far worse than even I anticipated. A study done in Denmark and published in the <u>British Medical Journal</u> in February 2003, shows that the risk of having a heart attack among diabetic women who have used estrogen replacement is an unbelievable nine times higher than normal.]

Research on C-reactive Protein confirms what many other studies have shown over the last several decades, that cholesterol-filled plaques in blood vessels may <u>not</u> pose any real danger <u>unless</u> they are affected by inflammation, and unless there is oxidative damage. Inflammation weakens plaques, making them more vulnerable to bursting or pinching off a clot that can then block coronary vessels.

One theory on the development of cardiovascular disease hypothesizes that plaques are not the pathology, they are actually an attempt on the part of the immune system to repair oxidative damage to blood vessel walls.

Well-established cardiac risk factors such as obesity, smoking, hypertension, and chronic periodontal disease all increase inflammation and C-reactive Protein. Interestingly, fat cells produce tremendous quantities of C-reactive Protein, which is one additional reason why being overweight is such a cardiovascular disease risk factor.

As we NUTRI-SPEC practitioners know, one of the key pro-inflammatory substances with which modern Americans are almost universally overwhelmed is the Omega 6 fatty acids from polyunsaturated vegetable oils.

Some researchers have suggested that the Statin drugs for lowering cholesterol show a slight, but statistically significant benefit in preventing heart disease, but do so <u>not</u> because they lower cholesterol, but because they have some anti-inflammatory activity and lower C-reactive Protein. Similarly, aspirin, which has been credited with reducing the incidence of heart disease and strokes by thinning the blood, may actually have its beneficial effect because it is an anti-inflammatory that reduces C-reactive Protein, rather than due to its anti-platelet blood thinning effects. The same can be said about vitamin E, which, while it does have some blood thinning effect, has now been shown to decrease inflammation and significantly lower C-reactive Protein. Another factor that helps lower C-reactive Protein is a high protein, high saturated fat, low carbohydrate diet.

Consider what you have now learned about the true nature of the pathology underlying CVD. You can clearly understand that the most direct and effective way to minimize our risk for CVD is to accompany our NUTRI-SPEC Fundamental Diet (Eat Well – Be Well) with the powerful ADAPTOGENS --- Taurine, Adapto-Max and Oxy-Max.

It has also been shown that not only is C-reactive Protein an inflammatory marker and predictor of cardiovascular disease, but it also serves as a warning sign for the onset of Alzheimer's Disease and other forms of senile dementia associated with the presence of vascular inflammation. One study showed that men with high C-reactive Protein have three times the risk of developing dementias, and that that risk is predicted years before clinical symptoms appear. C-reactive Protein is also likely linked to the incidence of ischemic stroke and transient ischemic attacks.

Now that you are developing a complete picture of the complexity of vascular disease, you should also begin to appreciate that you, as a NUTRI-SPEC practitioner, are uniquely in a position to actually do something about it. In the discussion of C-reactive Protein above, we mentioned the use of your Taurine supplement as a way to minimize CVD risk.

The amino acid (technically, it is actually a sulfonic acid) Taurine that we have long promoted for its protective role on the heart and blood vessels has had much additional research over a period of many years confirming its amazing clinical power. An Australian study published in the <u>Asia Pacific Journal of Clinical Nutrition</u> 2001; 10(2):134-7, showed that Taurine is one of the key properties in fish (<u>not</u> fish oil!) that protects against cardiovascular disease.

A large-scale study in Japan drawing from 24 populations in 16 countries revealed a strong inverse association between Taurine levels and ischemic heart disease. This was published in <u>Hypertension Research</u>, 2001 JUL; 24(4):453-7.

Researchers at the University of South Alabama found that congestive heart failure responds favorably to Taurine therapy. Their study was published in Amino Acids, 2000; 18(4):305-18.

A study published in <u>Clinical and Experimental Pharmacology and Physiology</u>, 2001 VOL 28, ISS 10, 809-815, described mice bred for severe high cholesterol and atherosclerosis being fed Taurine for three months. Even though their (genetically predetermined) cholesterol levels were still significantly elevated after treatment, Taurine reduced the area of arterial lipid accumulation by an astounding 28%. There was also a decrease in the size of lesions in the aorta. The blood level of the oxidative stress marker TBARS were significantly decreased by the Taurine as well. Thus, while it has been long known that Taurine lowers elevated cholesterol in humans, it is now seen that Taurine prevents the formation of atherosclerotic lesions independently of its blood cholesterol reducing effect.

Most impressive of all is the study published in the January 7, 2003 issue of <u>Circulation</u> showing that smokers initially have blood vessel diameters much smaller than non-smokers. Yet, after taking just 1.5 grams per day of Taurine for only five days, the smokers' blood vessel diameters increased to equal that of non-smokers.

If you are getting the big idea from all these research studies we are quoting, you now understand that it is not the presence of fats in the arteries that leads to degenerative changes, but the <u>oxidation</u> damage to blood vessel walls that leads to CVD. Thromboxane (Prostaglandins), homocysteine, deficient HDL cholesterol protective effects, excessive oxidation of the LDL cholesterol, the oxidative damage associated with advanced glycation end products (AGEs) (associated with insulin resistance as indicated by elevated triglycerides), and C-reactive Protein, are all signs of inflammation and oxidative damage.

The beauty of your NUTRI-SPEC supplements is that only <u>your supplements</u> --- Immuno-Synbiotic, Taurine, Diphasic AM, Diphasic PM, plus some combination of Oxy Tonic, Electro Tonic and/or Oxy D+ --- can stop (and even reverse) this inflammatory, oxidative damage in the vascular system.