**Nutrition, Health & Heart Disease**

Tips On How To Have A Healthy Heart

If an apple a day keeps the doctor away, what would it take to avoid a heart surgeon? How about a good vitamin + mineral supplement and some omega-3 oil (canola-rapeseed, flax, fish)? Add a diet low in processed food and maintain a good lifestyle (in this order: 1. don't smoke, 2. control waist size, 3. manage stress well, 4. some exercise) and you will improve your general health, and prevent or help heart disease.

This website looks at the food, supplement and prevention side of the picture. Nutrition in medicine is my long-term interest, not my job, so this site doesn't generate money or sell anything. Paint prevents rust on a car but does not cure it. This site is about the heart healthy nutrients preventing corrosion of your body proteins (and slowly even cure it) and about nutrients that can help you survive existing artery wall damage.

Science shows that a heart healthy diet is one with relatively unprocessed foods, with veggies, whole fruits and with rice or grains that retain most of their original kernel-structure. Those are the 'whole' foods that became scarce in Western diets. If you can't recognize part of the original food, the item is processed or refined. Some fresh eggs, liver or fish are probably also vital for most of us.

In food processing, as when making noodles or flour, we lose 60 to 95% of most of the heart healthy nutrients. Also lost is plant-structure 'whole-ness' that slows digestion, while factory hydrogenation preferentially zaps omega-3 oil, think of it as vitamin F-3, turning it into toxic trans fat.

Why a add multi-vitamin pill to your diet? Well, most fast single nutrient diseases like scurvy, beriberi and goiter were wiped out by food fortification, our 'weapon of mass nutrition'. However, processed foods low in many nutrients, such as vitamins B6, B12, folic acid and others, cause 'Long-Latency Deficiency Diseases', such as heart disease, cancer, bone loss and Alzheimer's. Think of these as nutrient deficiency diseases with long incubation periods and the science makes sense! Start with cholesterol and the science will never make sense (can your doctor explain the 4th figure from the bottom?).

While research is ongoing and not every nutrient is good for everyone, this site is one evaluation of the prevention evidence to date -but with a nutritional bias. The idea is HITMINS, "Health: It's The Micro-Nutrients, Stupid!" [and only then, the economy.]

Most scientists agree that almost no one has optimum levels of many key nutrients and that a multivitamin + mineral supplement fills many such gaps. Bonus: a high dose multi is the only therapy to lower homo-cysteine, a slow poison simply corroding our life-long structural proteins, linked to over 100 diseases. A bottle with 6 month no-iron multis has no child-proof cap, it's that safe! The evidence for benefit is massive and pennies per day.
Even in health, there's excellent science for taking such (normally, no-iron) multi plus foods and supplements for a total daily intake of at least 1 gram vitamin C, 1.2 g calcium, 600 mg magnesium, 1200 IU (30 mcg) D (when not getting regular summer sunshine), about 200 IU 'mixed' E in a meal with fat and 200 mcg selenium [bench-mark of a great multi].

The good news: there are major health benefits from omega-3 rich oils, like about 1 teaspoon flax (lin) or fish oil or 2 tablespoons canola (rapeseed). Lesser sources are unhydrogenated soy**, mustard oil, wheatgerm, flaxseed, walnut, green leaf veggies (surprise), and of course fatty fish -and really not much else.

Cardiologist de Lorgeril: '.. in most cases, the prescription of capsules containing oils enriched in [plant and fish] omega-3's ... will be, ethically and scientifically, an obligation.'

The bad news: common oils with over 50% of the omega-6 poly-unsaturate linoleic may be harmful (soy, corn, sunflower, safflower, grape and cottonseed) as is all hydrogenated [trans] oil ('vegetable' shortening, deep fry oils or ghee, donuts and 90% of margarines). **) Soy oil is a double edged sword as per person use in the U.S. went from zero 65 years ago to 31g/day, 10% of average daily calories. Soy is the main source of excessive trans and omega-6 fats in many countries: it's hidden and it's everywhere (scientific poster: HTML or PDF)

These simple basics may well prevent or postpone nearly 80% of heart and other serious diseases! And what could be easier than an oil change to canola and some flax (linseed), and a few supplements at the end of your largest meal. Reducing the highly refined carbs, a next step, is not that easy as average American yearly eat his weight in added sugars.

Apart from lowered nutrients, grains ground into a dust (flour and most breakfast cereals) or starchy potatoes (low-fiber, rapidly absorbed carbs) keep you hungry and stress your insulin system, promoting overweight & adult diabetes. Here, high insulin plus high blood sugar team up to reduce blood circulation and promote heart disease.

All illness has nutritional links. There's no doubt that all omega-3 oils (nature's COX inhibitors) lower heart attacks and double your survival chances while Vioxx and Bextra raise risk as may Aleve/naproxen & Celebrex. Fish omega-3's have anti-inflammation effects and help arthritis and bowel disease. Why not consider if such condition can be linked to a low intakes of such oils. This site will help you think along those lines.
A good multi is a zero-calorie Essential Food Group, an Ounce Of Prevention and Nutritional Seat-Belt. There is no research showing that avoiding multivitamins makes you healthier and it’s the only easy life-style change you can make. This website may not make you smoke less, walk more or revolutionize your diet but these ideas are simple and benefits major. This website will take you from the-not-so-bad cholesterol via fats and vitamins to the tastier foods.

C27-H45-OH HIGH CHOLESTEROL, a survival benefit prior to refined foods and you’d have to eat 20 eggs to absorb what you make each day. The famed Framingham study found clear thinking at high cholesterol while decreasing levels after age 50 predict more heart disease deaths!

Cholesterol Pills, statins like Lipitor, Zocor, Pravachol, Lescol, Mevacor or Crestor, (killer) fibrates and niacin (mega vitamin B3) have side effects, good, bad and unknown. Studies show that lowering cholesterol with statins, fibrates or omega-6 oils (but not niacin or fiber) promotes cancer [general effects and seniors].


More cancer and no survival benefit (±0.1%) in high risk older Europeans: Lancet 2002 (3 million $3 pills taken).

Next, in 6 years, nobody saved (±0.07%) in this younger group of 5170 Americans.

PS-1 In heart failure, in the 20% with the lowest cholesterol: double the death rate!

PS-2 TNT trial implodes: 5000 heart patients for 5 years on 80 mg top-dose suffer 2 more deaths than patients on only 10 mg. On either dose, the same 26 ±1% progression in artery calcium in 12 months anyhow! Lipitor does NOT save lives in studies.
PS-3 The American College of Cardiology in 2004: "... there is no evidence for a total mortality benefit in women from dyslipidemia [statin] treatment." Women: 3 more deaths on Zocor and 2 more heart 'events' on Lipitor in large studies (4S, ASCOT). In 24,000 women over age 50, those in the lowest 25% for cholesterol had the same risk for death (+60%) as those smoking!

PS-4 Out of 1/2 million U.S. men at 'prime heart attack age', the top 0.8% for cholesterol [-292 (7.5)] on anti-cholesterol absorbing drug for 7.4 years (and 1/8th less "bad LDL" compared with dummy drug) but no difference in survivors; count them: 3. And, oeps: in 65,000 men with 2700 deaths, those with least cholesterol [below 187 (4.8)] had most deaths!

Fever indicates infection but sitting in ice water won't kill the microbe. 'Cholesterol', insulin, sugar and blood pressure are also indicators, think: excess junk carbs, lack of micronutrients and artery decline in progress.

Above minimal '6' homo-cysteine is the indicator for your personal lack of most B vitamins. But unlike cholesterol, homo-cysteine corrodes (permanently damages) all proteins. It is also a poison pill in cholesterol transporters (LDL droplets), making 'cholesterol' actually become 'bad' -as do trans fat and oxidized cholesterol from foods with egg or milk powder.

Homo-cysteine above 6 µmol/L [a 'modern' diet and not taking a multi] is the main reason for heart disease and also for it running in families. Multi-vitamins slash homo-cysteine, keep arteries open and thin and flexible and help avoid heart surgeons.

A BMJ study: '.there is still only .. inconclusive [sic] evidence of the effects of modification of total, saturated, mono-unsaturated, or poly-unsaturated fats on cardiovascular [disease and] mortality.' Here's a 2006 JAMA disease summary: the futility of eating 'less fat'. Incidentally, hydrogenation of oils, most industrially refined foods and heart attacks are something of the last 95 years [text for graph].

We explore heart disease as a recent multi nutrient deficiency problem, starting with omega-3 oils, magnesium, folic acid and vitamins B6 and B12.

http://www.health-heart.org/ (4 of 8) [5/29/07 5:06:19 AM]
There are no drug deficiency diseases, or 'essential diets', only essential nutrients, yet, per capita, Americans use $70 prescription drugs per month. Most drugs manage lab-numbers or symptoms like pain, not root causes; they don't 'cure'. This is why cholesterol, sugar and blood pressure drugs have such a hard time proving they actually save lives. Fat plus cholesterol, atheroma, in arteries is not seen in wild animals and is unique to humans, a rare species not making its vitamin C and the only one using cooking, refining and food processing, slashing the nutrients that tame toxic homo-cysteine. Atheroma is largely a structural repair gone bad. This site suggests to prevent the structural decline and control the repair with the "homo-cysteine vitamins", omega-3 oils and some other nutrients. Many arteries blocked like Bill Clinton: 1 year deaths on drugs 1.5%; slightly less drugs + bypass or angioplasty: 4.2%! Medically-caused deaths may be the 3rd cause of U.S. deaths so nutrition could be your best medicine. This age old concept is called nutritional, naturopathic or orthomolecular medicine - doctors who know the potential of nutrition.

- ARTERY DECLINE ... NOT LIKE THE CLOGGING OF A DRAIN PIPE -

Over simplified best theory. Arteries are a muscle layer sandwiched between 2 structural layers. Lack of B-vitamins causes excess homo-cysteine that dumps its sulfur onto the 'cartilage' of the inside layer (the proteo-glycans of the intima), 'un-ties' collagen 'cables' and 'crumbles' rubbery elastin. This 'excess sulfation' helps trap LDL's cholesterol, and then calcium, as in stage 4 lesions shown below and where finally the muscle layer, the media, is infiltrated.

Elastin-network 'crumbling' in the media frees muscle cells that move and 'dys'organize artery architecture. Crumbled elastin 'loves to' accumulate cholesterol and calcium. Homo-cysteine degrades the shape and thus function giving cysteine sulfur bonds in your life-long proteins*. It also promotes clotting and inflammation (II-8). B-vitamins with vitamin C, copper and zinc prevent such damage and repair some of it. Incidentally, excess sugar (glyoxal) in diabetes damages elastin and collagen in a very similar manner. [homo-cysteine + response-to-LDL-retention theories: CVD as a 'sulfur disease'.

*) Analogy: liquid latex is vulcanized into the shape of a tire by sulfur bonds; homo-cysteine degrades such sulfur bonds in your permanent structural proteins.]
-- CHOLESTEROL BONUS for DOCTORS and SCIENTISTS: --

**LIPO-PROTEINS: nutrient transport emulsion**

*Good or bad cholesterol: only the PROTEINS change, NOT the cholesterol transported. YOU control the type of nutrients or toxins these proteins transport.*

'bad' LDL, a mail truck for fatty nutrients and the 'good' HDL bicycle courier: different transport proteins for the same cholesterol.

50% cholesterol LDL, 20% – 0% HDL

1 billion such emulsion particles per drop of blood, dozens different proteins, and a nutrient composition YOU determine by your diet. The ONLY bad cholesterol may be that found pre-oxidized in egg and milk powder products, or in dry or excessively fried meats. Trans-fats, insufficient omega-3 oils and excess homo-cysteine (from lack of B-vitamins) also degrade LDL quality.

Some ways to make this vital LDL droplet a Trojan horse yourself is by loading it with oxidized cholesterol, trans fats, or homocysteine.

**SUMMARY:** LIPO-PROTEINS CAN BE VITAL NUTRIENT DELIVERY OR GARBAGE TRUCKS [LDL] BUT HDL IS ALWAYS A MULTI-TASK CLEAN-UP AND DELIVERY SERVICE.

---

**Good HDL-cholesterol explained**

This most microscopic of blood particles is really a package of over 50% protein, about 30% lecithin [emulsifier] and 0 - 20% cholesterol.

Calling it 'cholesterol' is thus a Medical Misunderstanding. It is a 'space ship' of over 40 proteins in the blood, a messenger and courier controlling artery and cell health. Good it always is! It interacts with other fatty blood droplets [LDL] and cell walls alike.

HDL raises with anything that promotes circulation: exercise, moderate alcohol, or as drug: mega-niacin. Also, foods with fats. The "good" lowers with waist-obesity, trans fats, high refined-starch, low-fiber, or low-fat foods. Factory refined flour products don't help.

**HDL, the tiny work horse**

~22 amino acids per coil that 'talk' and regulate cells

---

Now we know, statins like LIPITOR don't save lives, at great cost and side effects. 17 to 53% less 'bad' LDL cholesterol...

Mathematically superimposed curves of the 3.3 year ASCOT Lipitor study (red lines) on the 6 year deaths of the ALLHAT Pravachol study.

Over 10,000 high-risk people for years on two typical statins, no one saved.

5000 more heart patients on top-dose Lipitor for 5 years suffer 2 more deaths than another 5000 on low dose in the TNT trial. And, on either dose, artery calcium increased 26±1% in 1 year anyhow! Medline 16415377

Top dose or no Lipitor: 53% less cholesterol, the same 22% increase in calcium in the valve of the aorta per year. Medline 15944423

Could it be quality not amount of LDL determining artery friend or foe? - drugs change quantity, nutrients quality.

**-- NEXT: --**

THE NAIL IN THE CHOLESTEROL THEORY:

WHERE WOULD YOUR DOCTOR SEND THE CHOLESTEROL DRUG ? --
More 'bad' cholesterol but 4.4 times less heart disease and less plaque in Sweden

Medical dilemma: cholesterol doesn't fit the scientific reality.

Where would your doctor send the cholesterol lowering drugs:
1. Sweden, 2. Lithuania or 3. the Baltic Sea in between?

* Some micro-nutrients were lower in Lithuania. LDL nutritional "quality" may be more important than simply LDL "quantity".

AND FINALLY: A SIMPLIFIED GLOBAL PICTURE:
Supplement Summary

Multivitamin (with high-dose B’s) such as Twinlabs Daily One Caps (U.S.) or Nu-Life 50+ Optimal (Canada) with largest meal, normally: ‘no iron’.

Canola (rape) oil for plant based omega-3 (1-2 table spoons / day) or 1 teaspoon flax, oil, or flax/linseeds, crushed in coffee mill (1-2 table spoons / day) PLUS about 1 g/day fish oil as 1 pill or 2 fatty fish meals / week

1-3 calcium + magnesium + vitamin D combo pills/day, most / best at night.

1-2 g vitamin C & 200 IU mixed E optional, CoQ10 a must when on statin.