

**NUTRITION,
HEALTH
&
HEART DISEASE**
Cause and Prevention



by Eddie Vos

www.health-heart.org



PDF version of www.health-heart.org
– without the separate cholesterol summary page
found here: www.health-heart.org/cholesterol.pdf –

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Nutrition, Health & Heart Disease

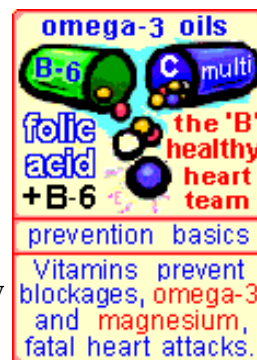
Tips On How To Have A Healthy Heart

RIGHT
click on
links



If an apple a day keeps the doctor away, what would it take to avoid a heart surgeon? How about, first, a good **vitamin + mineral supplement** and **some omega-3 oil (canola-rapeseed, flax, fish)**? Add a diet low in processed food and, 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.

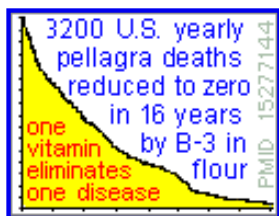
This website looks at the **food, supplement** and **prevention** side of the picture. Nutrition in medicine is **my** long-term interest, not my job, so **this site doesn't generate money or sell anything**. Paint prevents rust on a car but does not cure it. This site is about the heart healthy nutrients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

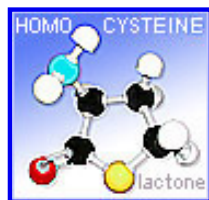
Those are the 'whole' foods that became scarce in Western diets. If you can't recognize part of the original food, the item is processed or refined. Some fresh eggs, liver or fish are probably also vital for most of us.


In food processing, as when making noodles or flour, we lose 60 to 90% 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.



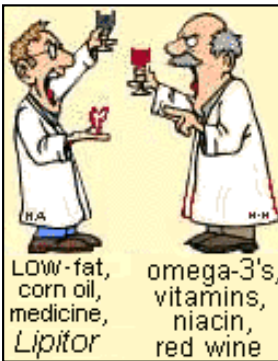
Why a add multi-vitamin pill to your diet? Well, most fast single nutrient diseases like scurvy, beriberi and goiter were wiped out by food fortification, our 'weapon of mass nutrition'. However, processed foods low in many nutrients, such as vitamins B6, B12, folic acid and others, cause '**Long-Latency 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*].

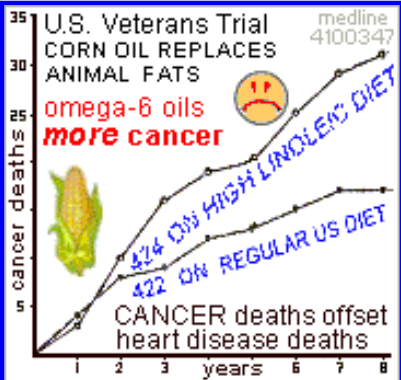


LOW-fat, corn oil, medicine, Lipitor

omega-3's, vitamins, niacin, red wine

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.'



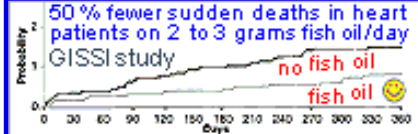
U.S. Veterans Trial CORN OIL REPLACES ANIMAL FATS omega-6 oils more cancer

474 ON HIGH LINOLEIC DIET

422 ON REGULAR US DIET

CANCER deaths offset heart disease deaths

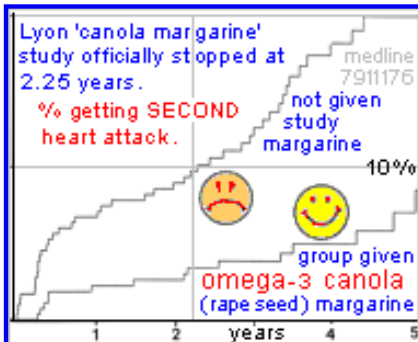
The bad news: common oils with over 50% of the omega-6 poly-unsaturate linoleic may be harmful (soy, corn, sunflower, safflower, grape and cottonseed) as is *all* hydrogenated [*trans*] oil ('vegetable' shortening, deep fry oils or ghee, donuts and 90% of margarines). ****Soy oil is a double edged sword** 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](#))



50% fewer sudden deaths in heart patients on 2 to 3 grams fish oil/day GISSI study

no fish oil

fish oil



Lyon 'canola margarine' study officially stopped at 2.25 years.

% getting SECOND heart attack.

not given study margarine

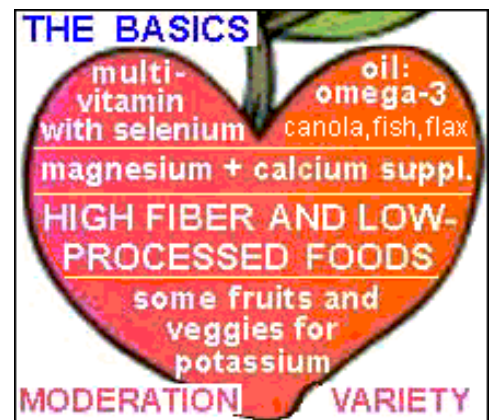
group given omega-3 canola (rape seed) margarine

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.

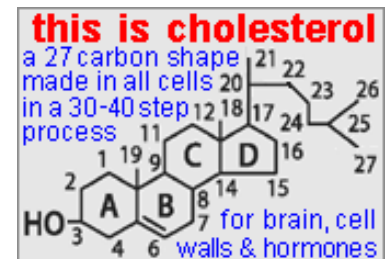
<p><i>Apart from</i> lowered nutrients, grains ground into a dust (flour and <i>most</i> breakfast cereals) or starchy potatoes (low-fiber, rapidly absorbed carbs) keep you hungry and stress your insulin system, promoting overweight & adult diabetes. Here, high insulin <i>plus</i> high blood sugar team up to reduce blood circulation and promote heart disease.</p>	<p>All illness has nutritional links. There's no doubt that <i>all</i> omega-3 oils (nature's COX inhibitors) lower heart attacks and double your survival chances while <i>Vioxx</i> and <i>Bextra</i> raise risk as may <i>Aleve</i>/naproxen & <i>Celebrex</i>. 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.</p>
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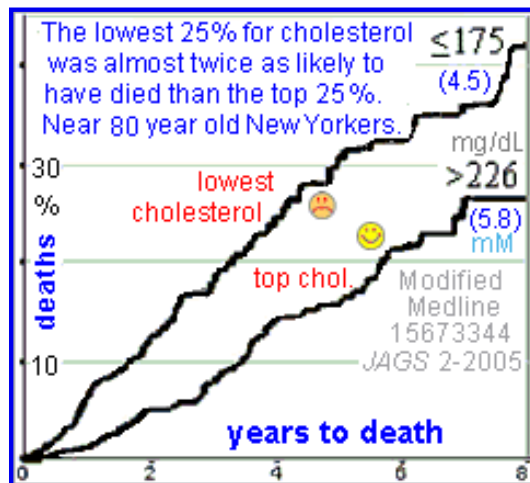
A good multi is a zero-calorie Essential Food Group, an Ounce Of Prevention and Nutritional Seat-Belt. There is no research showing that avoiding multivitamins makes you healthier and it's the *only* easy life-style change you can make. This website may not make you smoke less, walk more or revolutionize 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!



Drug and food interests create cholesterol fear but *statins* don't work by lowering it and **don't save women**: [BMJ Feb.](#), [JAMA May](#), [JACC Sept. 2004](#), [CMAJ Nov. 2005](#).



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 ($\pm 0.1\%$) in high risk older Europeans: [Lancet 2002](#) (3 million \$3 pills taken).

The more statins cut cholesterol, the more they cut energy to nerves, muscle and heart by lowering CoQ10, 'battery acid' and anti-oxidant ('catalytic converter') of every cell. [Here's](#) a study with *best* cholesterol at the happy old "normal" range of 180-240 (4.6-6.0) (also: [1](#) & [2](#)).

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


Great sites: [thincs.org](#) and [Myths](#).

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.**

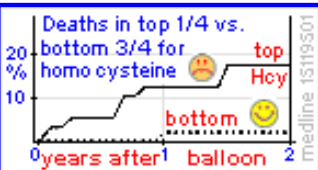
♀ PS-3 The American College of Cardiology in 2004: "... there is no evidence for a total mortality benefit in women from dyslipidemia [statin] treatment." Women: 3 more deaths on Zocor and 2 more heart 'events' on Lipitor in large studies (4S, ASCOT). In 24,000 women over age 50, those in the lowest 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 micro-nutrients and artery decline in progress.

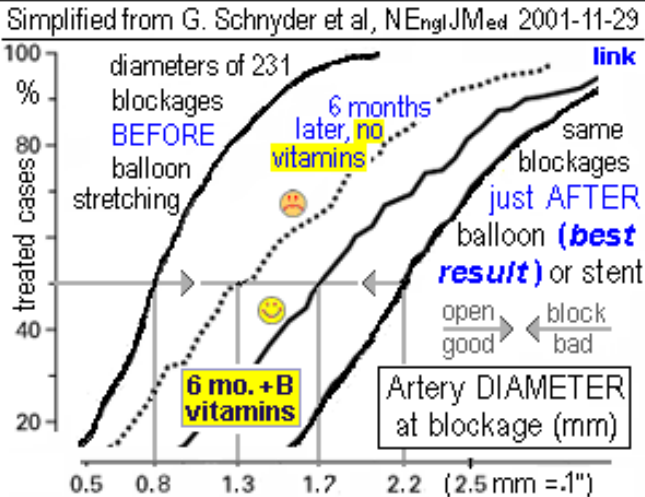
Above minimal '6' homo-cysteine is the indicator for your personal lack of most B vitamins. But unlike cholesterol, homo-cysteine corrodes (permanently damages) all proteins. It is also a poison pill in cholesterol transporters (LDL droplets), making 'cholesterol' actually become 'bad' -as do trans fat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



Deaths in top 1/4 vs. bottom 3/4 for homo-cysteine. **top Hcy** (red line) shows a sharp increase in deaths over 2 years after balloon. **bottom Hcy** (blue line) shows significantly fewer deaths.

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.


Simplified from G. Schnyder et al, NEnglJMed 2001-11-29 [link](#)



Artery DIAMETER at blockage (mm)

B-vitamins keep arteries open after operations – and before: the benefits of low homocysteine.

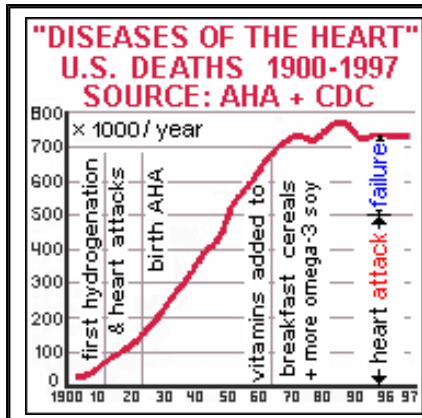
AMAZING vitamin benefit in medium and small arteries. Study questions wisdom of "stenting first".



Failed prevention: forcing open a blocked artery - helps angina, not survival.

Angioplasty with or without mesh "stent"

The 100b\$/year bypass & angioplasty industry is basically road patch or detour work: symptom relief, not dealing with the basic problems & 14% more deaths -in MEDLINE 15663006



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.



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.



Free non-profit use. Site started in 1998 by Eddie Vos, M. Eng., Glen Sutton, Québec, Canada. 🇨🇦 While based on current science, this site has no final answers and is meant to help you think more clearly about nutrition and your health. Update Jan. 1st, 2008. Index. Cholesterol drugs summary page.

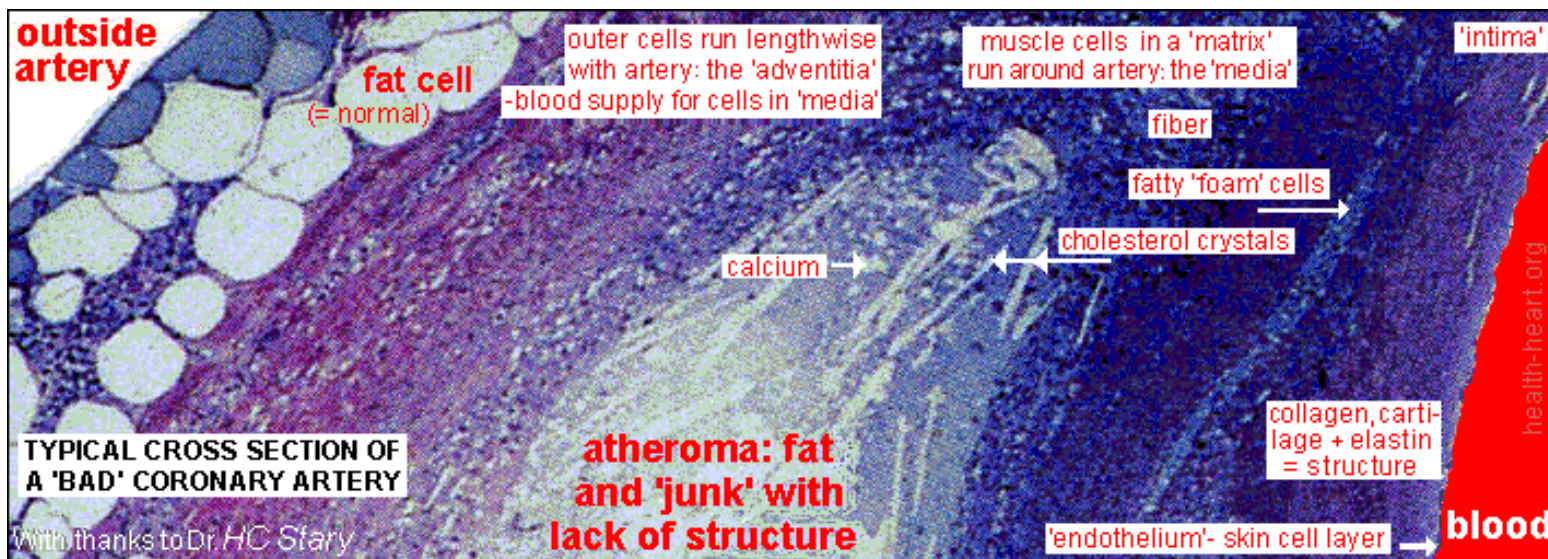


- ARTERY DECLINE ... NOT LIKE THE CLOGGING OF A DRAIN PIPE -

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

Statins like LIPITOR™ (atorvastatin) don't save lives, and calcification continues! 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.

drug or no drug total ~1650 deaths 3.3 years to death

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

Another 5000 heart patients on top-dose Lipitor for 5 years suffer 2 more deaths than 5000 patients on low dose (TNT study)

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

2006 UP-DATES: 2365 stroke patients for 5 years on top-dose Lipitor suffer 5 more deaths, more serious bleeding strokes and no fewer fatal heart attacks than those on placebo (SPARCL study) and 1200 diabetics on Lipitor for 4 years had 2 more deaths and no fewer 'events' than those taking the placebo (ASPEN study)

Good HDL-cholesterol explained health-heart.org

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 80 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.

HDL lowers with waist-obesity, trans fats, high refined-starch, low-fiber low-fat foods. Factory refined flour products don't help.

simplified Medline 7751809

HDL, the tiny work horse

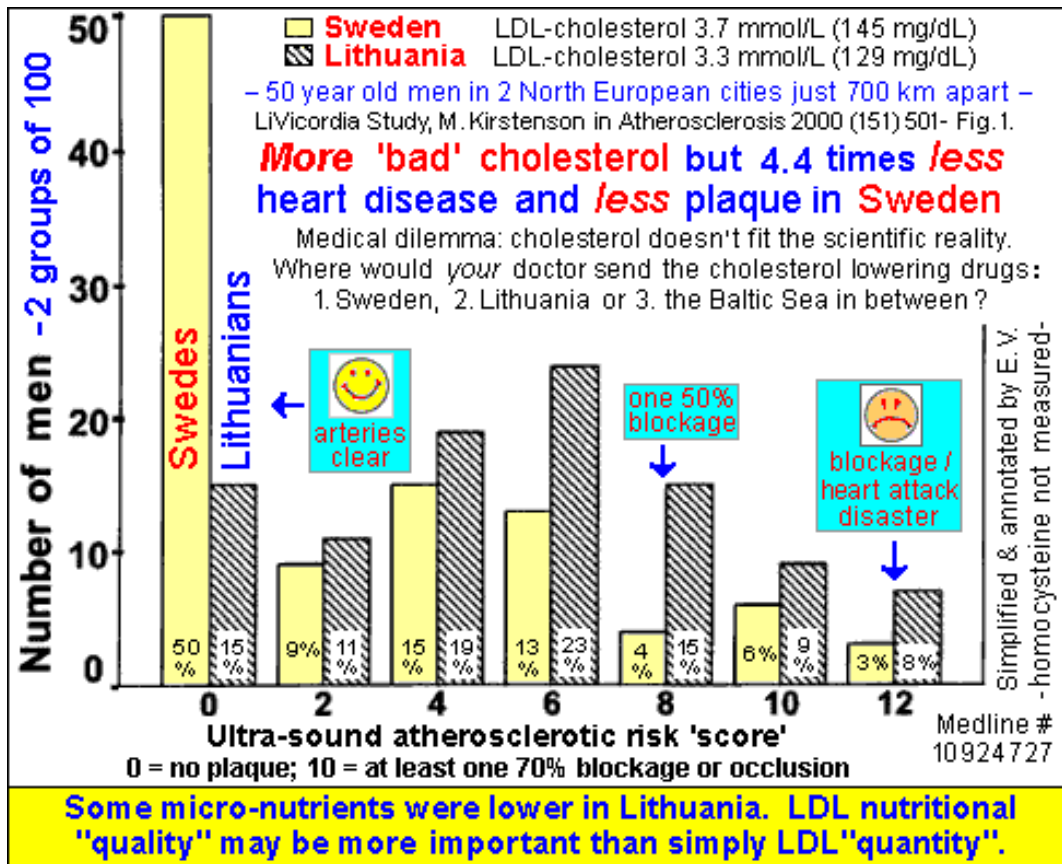
lecithin layer -like a cell wall- empty HDL disk

proteins that control the particle

Filled with 'up to' 20% cholesterol

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

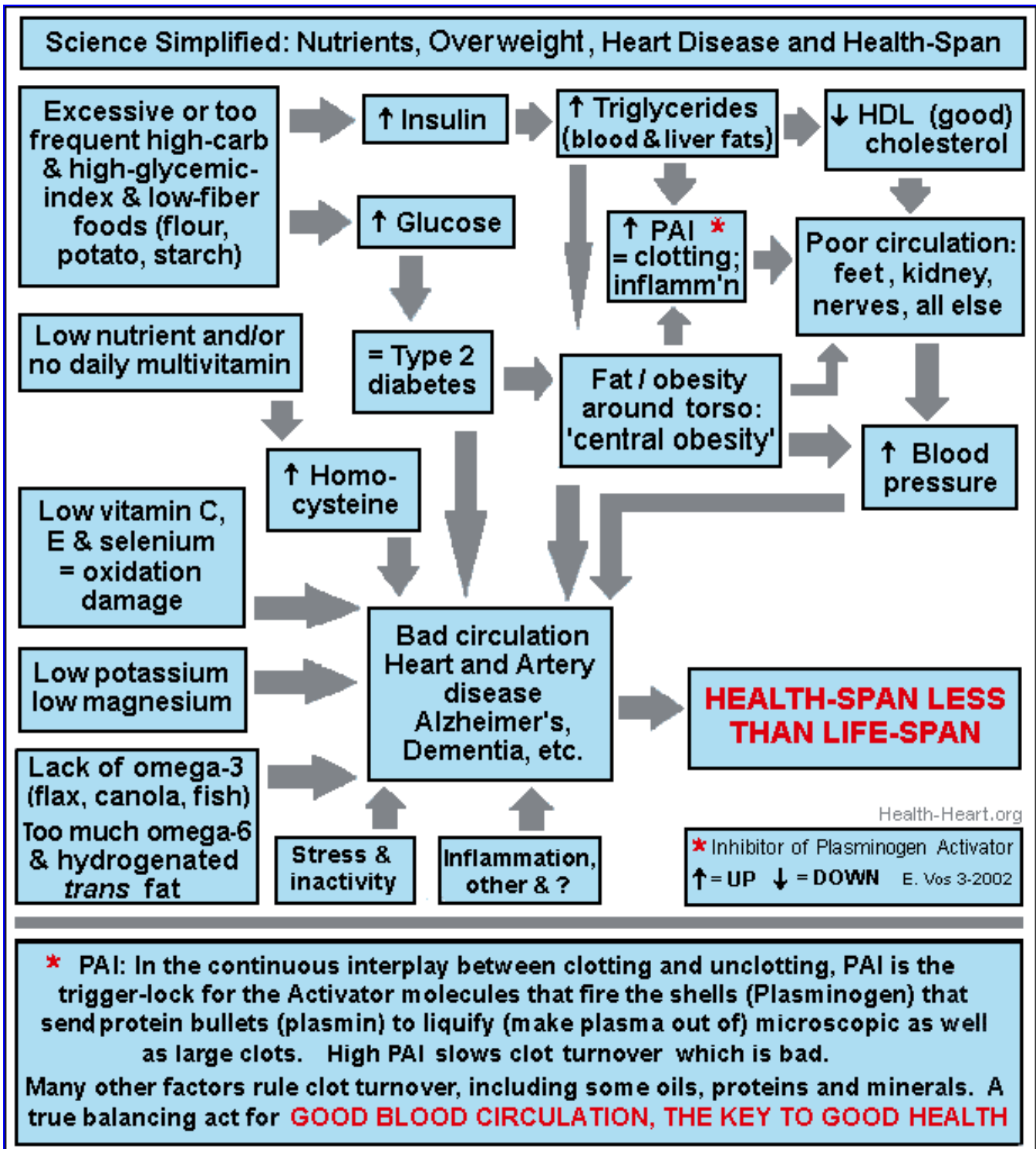
-- NEXT: -- THE NAIL IN THE CHOLESTEROL THEORY:
 -- WHERE WOULD YOUR DOCTOR SEND THE CHOLESTEROL DRUG ? --



- WHAT HDL REALLY DOES -&- CHOLESTEROL LOWERING IN THE HEALTHY -

↑ nitric oxide ↑ prostacyclin ↓ endothelin-1 ↑ surface heparans ↑ cholesterol efflux ↑ proliferation ↑ migration ↑ tissue plasminogen activator	function, fluidity, motion up new: with PON-1 HDL detoxifies homo cysteine thio-lactone, 'cleans' LDL, cell & membrane walls	↓ PAI ↓ E-selectin ↓ V/ICAM-1 ↓ thromboxane A ₂ ↓ platelet activating factor ↓ apoptosis ↓ NF-kB activation ↓ sphingos.-1 phosph.	Clotting, blood stickiness, cell death down ↓ LDL uptake	What HDL does what HDL does	41,801 healthy Japanese with "high cholesterol" before study (~270 (=7)). Deaths per group after 6 years on Zocor <p> Medline 12499611 LOW CHOLESTEROL WAS NOT HAPPY CHOLESTEROL </p>
LEFT: the good things HDL promotes.				Medline 11602504 Simplified J. Genest	Lowering cholesterol

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'.

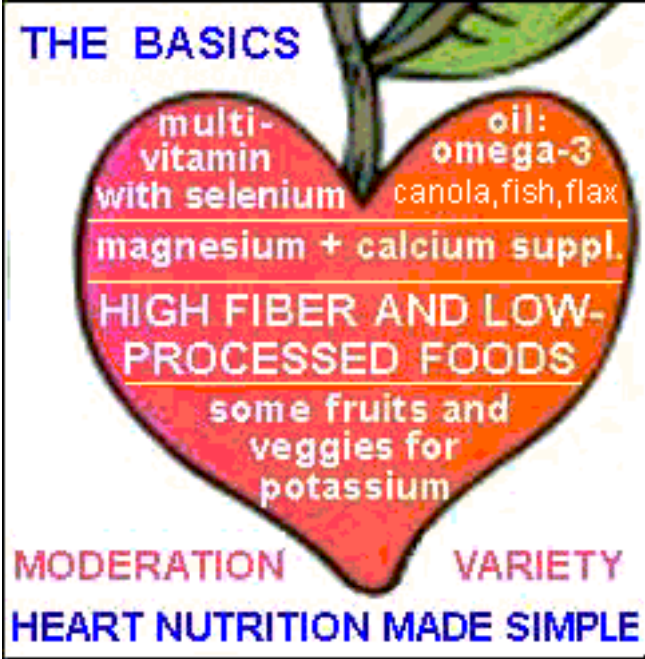
Canola (rape) oil for plant based omega-3 (1-2 table spoons / day) or 1 teaspoon flax, oil, or flax/linseeds, crushed in coffee mill (1-2 table spoons / day) PLUS about 1 g/day fish oil as 1 pill or 2 fatty fish meals / week

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.

The Basics

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[\[Diabetes & Weight\]](#) [\[Where\]](#) [\[Cholesterol\]](#) [\[Why\]](#) [\[More on Causes\]](#) [\[31 Tips & Info\]](#) [\[Index\]](#)



THE BASICS

multi-vitamin with selenium

oil: omega-3
canola, fish, flax

magnesium + calcium suppl.

HIGH FIBER AND LOW-PROCESSED FOODS

some fruits and veggies for potassium

MODERATION VARIETY

HEART NUTRITION MADE SIMPLE

There is little reason for an early heart attack. The same is true for many other diseases like osteoporosis, mental decline and several cancers.

Over 50% of U.S. women (more than men) dying today do so from heart and blood vessel diseases and one American dies every 5 minutes from 'properly' prescribed drugs.

On the supplement side of the picture however, no one has ever died from their indicated use and there's zero research showing that avoiding a *multi* makes you healthier. As luck has it, they are the only *easy* part of health maintenance.

Follow some of these easy tips to prevent heart problems and promote health. If you do only one thing: take a *good* multivitamin and get your omega-3's. Incorporate some of the other changes and prevent, help, or postpone most of the slow-building diseases common after mid-life.

- 1. START WITH** a single multivitamin with most B's near the 25 mg level, B3 at 100 mg, folic acid at minimum 400 mcg and B12 at 100 mcg. The [Where](#) page has several sources, including some single *multis* with all that stuff for about 11¢US per day. **Super important:** use omega-3 oils like fatty fish (or pills), flax(lin) seed (or oil), and start using canola (rapeseed, colza) or in India: mustard seed oil. *Refrigerate* all omega-3 oils! Olive has zero omega-3.
- 2. STEP TWO** --increase unprocessed and unrefined fresh foods: "above-the-ground" veggies and fruits, *whole kernel* (little ground) grains, bran, wheatgerm, beans, *brown* rice and, yes, fresh eggs. If you like liver .., good!

3. STEP THREE --reduce sugar, *white* flour (if it says *enriched*, it ain't whole), *white* rice, ordinary *white* noodles and foods that are deep fried, have shortening and anything "hydrogenated". Potato (starchy or fried) is also a high "glycemic load" food with few health benefits. Avoid all high *linoleic* omega-6 oils, like soy, corn, sunflower, safflower and cottonseed. *Never* use polyunsaturates for frying for which only saturates are totally safe.

Separately take 200 IU "mixed" natural (type d) **vitamin E** (best not type dl), at least 1 gram **vitamin C** (not *Ester-C*). Get 200 mcg **selenium**.

Make sure to get not less than 1200 mg **calcium**, about half that much (700 mg) **magnesium** (*most* people will need to supplement) and 800 IU [-2000 IU= 50 mcg] **vitamin D** to make the calcium actually build bone (get sun and from fall to spring: cod liver oil is a good source!).

Don't take iron unless you are in your child bearing years and/or have a medically established reason. Go easy on the **copper** (1 - 2 mg max.) but do include 15 mg **zinc**. These, the selenium and the most "D" can be found in the same single multi; see [[Nuts & Bolts](#)].

For omega-3's, use 1 (or 2) teaspoons of cold-pressed **lin(flax)** oil or 2 tablespoons of **canola** or (or if you can't find canola/rape or mustard oil) *un*-hydrogenated **soy**. Lin(flax) seeds and walnuts are great sources.

Regularly eat **fatty fish** (or, to save the oceans, a 1 gram pill/day); **extremely important** [see [Comments](#)]. Olive oil is healthy but has no omega-3 (so spike it with flax oil). Butter is better than margarine except those based on *un*-hydrogenated canola.

Lack of potassium (celery, fruits, veggies & imitation salt --but *not* in flour, sugar or fats; also in high starch banana and potato) and **magnesium** (full kernel grains, nuts, greens -or as part of a calcium/magnesium + vitamin D pill; any brand will do) are main causes of heart attacks. Sweating and *most* diuretics flush out these spark plugs for the heart. Magnesium is likely The Most Important of the minerals *most* Westerners are low in.

4. ABOUT CHOLESTEROL [see picture at end], I wouldn't pay too much attention unless the "good" HDL is considerably below say "45" (1.1) --see [[cholesterol](#)], or unless you have a special (genetic) reason *-and* are not taking omega-3s *and* a B vitamin supplement. 'Low cholesterol' people on average tend to live shorter while higher cholesterol people when older tend to be 'smarter' and have better aging brains.

If your doctor proposes you have a 'cholesterol problem' (which is not an illness), at all costs try to avoid the statin drugs by taking niacin instead (vitamin B3, about 2 g/day). **Generic niacin is 10 - 20 times cheaper and uniquely beneficial in its action on blood fats.** It lowers, if you also take a *multi, all* that could be bad and raises most that is good, and more. It also makes doctors happy. The scary 'flush' soon disappears if taken after meals.

NOTE: If you have a (congestive) heart condition (CHF) or take statin drugs (*Lipitor, Zocor, Pravachol*, etc), strongly consider at least 60 mg **coenzyme Q10** (CoQ10) as statins dramatically lower this energy producing agent. Let no doctor put you on a statin drug *without* knowing your Lp(a) and homocysteine first: for Lp(a) high-dose niacin + vitamin C work better while for homocysteine [which also runs in families -and "family history" is often a reason to put you on a statin-] it takes B-vitamin "therapy" instead.



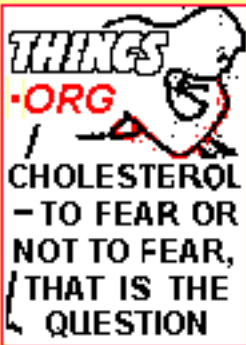
Each of the above steps is important for heart and blood vessels as well as for the entire body and mind --yes, there *is* a mental health and Alzheimer's link! Don't smoke, get some exercise & don't sweat the small stuff.

Chances are that long-term use of these foods, supplements and omega-3s



will reduce your risk of sudden heart death by up to 80%.

Not bad for stuff you can buy in a market or health food store! Jan. 1st, 2008.



"MANAGING" CHOLESTEROL WITH NUTRITION

old normal range: 180 to 300 (or 160-330)

newer normal : 180 to 240

new AHA guide : under 200 "desirable"

Hawaii long-term men study: longest life at 180 to 240
higher: more heart disease, lower: more cancer -

Cholesterol in food does not increase blood cholesterol and avoiding cholesterol in food will not lower it -

To reach under 200 would require drugs since diet in most people would not lower it to that point: *Lipitor, Zocor, Lescol, Pravachol, ..*

CHOLESTEROL moves in HDL ("good") and LDL (sometimes "bad")

* HDL: low is bad in men and women: important to have as much as possible; raised by: **exercise, moderate alcohol, mega-niacin (B-3), saturated fat**; lowered by: **starch [over-weight, adult diabetes]**

* LDL: a 20x larger "transport vehicle" (droplet) for cholesterol, vitamins A, E, K, carotene, lycopene and more-supplying all cells. LDL therefore is basically great stuff and needed for life.

However, some things "corrupt" LDL making it toxic to your arteries:

- 1: egg/milk powder, egg noodles (oxidized cholesterol)
- 2: margarine, shortening, baked goods (hydrogenated -trans- fats)
- 3: homocysteine -this is a natural blood toxin we all have; it can *only* be lowered by a "high-dose" multi B-vitamin

LDL is thus great unless you corrupt it, making it "bad" -cholesterol

HOW TO HELP THINGS:

- A: omega-3 oils -canola, flax, walnut, fatty fish [-none in solid fats]
- B: high fiber foods help get rid of excess cholesterol (fruits/veggies oat fiber, crushed flax seeds, metamucil .. whole kernel breads)
- C: potassium and magnesium from fruits/veggies, magnesium suppl.
- D: vitamin C from supplement (keeps arteries healthy)

multi-vitamin with selenium omega-3 oil
magnesium + calcium suppl.

HIGH FIBER AND LOW-PROCESSED FOODS
some fruits and veggies for potassium

The Basics

MODERATION VARIETY
HEART NUTRITION MADE SIMPLE

Happy and healthy 2003
Probably the world's best multi-with Carlson Labs Super 2 Daily

www.health-heart.org

This looks like an ad-but we don't sell the stuff

For most: no-iron multitis
www.health-heart.org

1 point of view of the science- E. Vos

L'Essentiel -- de la prévention par alimentation

[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
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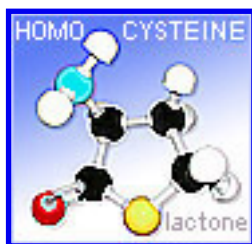


Voici un résumé des faits essentiels provenant d'un site sans-but-lucratif, en Anglais, expliquant le rôle de la nutrition et des suppléments alimentaires (micro-nutriments) pour une santé optimale, et principalement pour prévenir les problèmes cardio-vasculaires.

L'auteur suit attentivement le domaine de l'alimentation et des maladies chroniques (cardio-vasculaires, cancer, ostéoporose, déclin mentale, etc.) depuis des dizaines d'années. Il vous propose une théorie simple concernant "*l'alimentation préventive*".

Une modification simple de nutrition --un choix d'aliments peu altérés (légumes, fruits et grains, produits entiers) et l'usage de quelques 'vitamines', peut améliorer le triste bilan de santé moderne: la moitié des décès sont dus à des problèmes cardio-vasculaires (plus de femmes que d'hommes), et un quart au cancer. De plus, toutes les 5 minutes, selon la revue [JAMA](#), un Américain meurt et 20 subissent des conséquences graves à cause de médicaments prescrits par leur médecin.

Par contre, personne ne meurt à cause des suppléments alimentaires suggérés, et aucune étude ne prétend qu'éviter ces suppléments améliorera votre santé. A eux seuls, ces suppléments (micro-nutriments) constituent une modification simple des habitudes de vie -pourtant leurs effets à long terme peuvent être importants.



Si vous ne faites qu'une seule chose, prenez l'une des vitamines multiples suggérées. Les vitamines B qu'elle contiennent sont la *seule* thérapie pour réduire le corrosif principal affectant toutes nos protéines, l'acide aminoïque toxique *homocysteïne* (pensez: corrosion d'artères, bris, démences, et autre). Incorporez quelques unes des suggestions suivantes et vous pourrez retarder la plupart des maladies chroniques, si fréquentes après un certain âge.

1. **AUGMENTEZ:** Les produits les moins raffinés: légumes, fruits, grains entiers, fibre et germes de grains, fèves, riz-brun et, oui, oeufs --et, pour les huiles oméga-3 (ω -3), le poisson contenant du gras (saumon, maquereau, sardine), *et* l'huile de lin (55% ω -3, de canola (*colza*; 10% ω -3) ou de noix de Grenoble. Au Canada il y a 3 types de margarine

basés sur le canola/colza non-hydrogéné; en France, cherchez margarines et huiles indiqués: *colza* non-durcies.

2. **RÉDUISEZ:** Sucre, farine blanche (enrichie, ne veut pas dire "entière" ..), riz blanc, nouilles ordinaires et toute nourriture contenant du gras hydrogéné (pâtisserie commerciale, margarine). L'huile de soya est acceptable (6% ω -3) mais évitez l'huile de tournesol, de maïs, de carthame (trop élevées en oméga-6).

3. **PRENEZ:** une multi-vitamine ayant les B's à minimum 25 mg, le B3 à 100 mg, l'acide folique à 0,8 mg (800 mcg) et le B12 à 0,1 mg (100 mcg). La page [[Where](#)] donne quelques sources de bonnes multi-vitamines (beaucoup d'autres sont trop coûteuses ou de piètre composition). Un tel supplément réduira vos risques de cancer ainsi que le taux d'homocystéine dans le sang [[nocif pour le coeur \(Québec\)](#)] et le cerveau: *Alzheimer*].

Voici quelques sources: [ce-site web**](#) (en anglais); par la poste: [ici**](#) (pas de fer). Par téléphone-catalogue: *Bronson* 1-800-235-3200 (Amérique) ou +1-801-756-5670 (Europe): produit #2 (ajoutez: sélénium). Un multi-vitamines + minéraux devrait coûter entre 10 et 20 centimes ÉU. Au Canada, [Nu-life "L'Ultime" version 50+](#) sans fer (superbe: contient déjà 100 mcg de sélénium; cherchez magasin: tél. (866) 583 0646; plusieurs magasins *Provigo*; *Bonne Santé*, et autres). Également: *Kirkland "Forte Sénior"* chez *Costco*, [Super VitaVim](#) (bon), *Super Swiss One "50"* ou *Swiss Végé* (en général: cherchez le sélénium et évitez le fer). **A éviter:** le multi "100 Total" de Dr Brunet -*Le Naturiste*.



De plus, prenez 200 IU (mg) de **Vitamine E** de source "mixte"/naturelle (type d) (mieux que "synthétique, dl"), et de minimum 1 g de **vitamine C** (évitez l'*Ester-C*).

Assurez vous d'obtenir environ 1,2 g de **calcium**, jusqu'à 0,7 g (700 mg) de **magnésium** (la plupart des gens doivent prendre des suppléments afin d'obtenir ces quantités) et 800 IU de **vitamine D** afin de permettre au calcium de créer de l'os (en hiver: 1 c. à thé d'huile de foie de morue!!). Des légumes verts fournissent de la vitamine K qui aide également les os.

Évitez le fer si la carence n'a pas été déterminée par analyse sanguine. Ne prenez pas trop de **cuivre** (1 - 2 mg) mais incluez 15 mg de **zinc** et 0.2 mg (200 mcg) de **sélénium** (anti-cancer et pro-coeur) par jour. Ces minéraux et la vitamine D se trouvent dans certains *multis*** précités, regroupés en une simple capsule.



Concernant les huiles oméga-3 (et la fameuse étude à Lyon en a prouvé l'importance), 1 cuillère à thé de l'huile de lin pressé à froid devrait être suffisante ou, pour un plus grand apport calorique, 2 cuillères à table de **canola (colza)** non-hydrogénée. Les graines de lin ou les noix de Grenoble sont

également de bonnes sources. Les poissons identifiés plus haut vous procurent aussi ces huiles **extrêmement importantes**; voir item 1 des [\["31 Tips .."\]](#). L'huile d'olive vierge est un excellent produit mais ne contient aucun omega-3. Les huiles oméga-3 sont devenues rares dans l'alimentation d'aujourd'hui; elles aident toutes sortes de fonctions cardiaques, et d'autres problèmes. Évitez les huiles en très haute teneur d'oméga-6, l'*acide linoléique* (maïs, tournesol, carthame, cotton, et limitez soya).

Les carences en **potasse** (bananes, céleris, pommes de terre, légumes, substituts de sel) et en **magnésium** (céréales entières, noix, légumes verts) sont des cause d'attaques cardiaques. La transpiration et la plupart de diurétiques réduisent ces "bougies pour le coeur". Prenez assez d'eau.

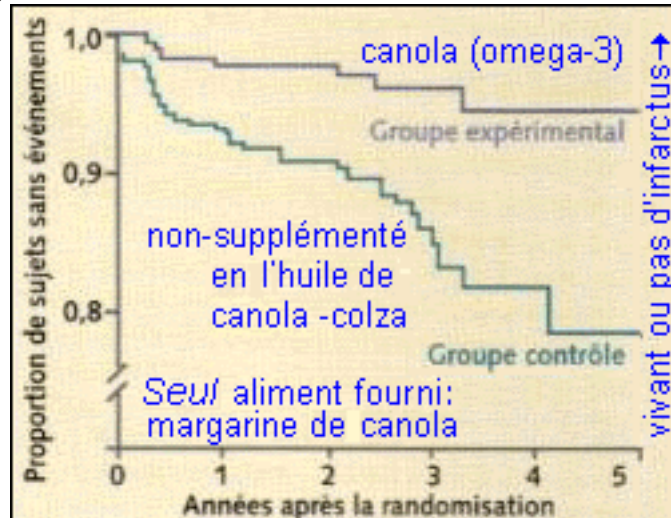
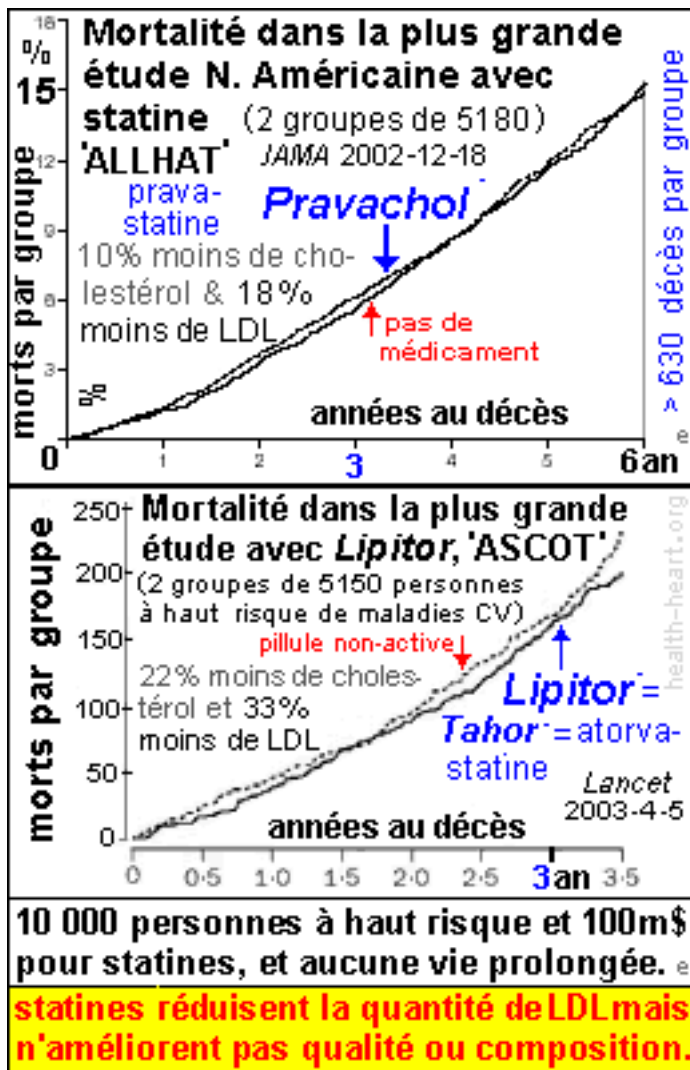


Figure 1. Événements combinés : décès de cause cardiaque + infarctus du myocarde non fatals dans l'essai lyonnais (De Lorgeril M. et coll. Lancet 1994: 1454-9).



4. **LE CHOLESTÉROL** a peu d'importance (Anglais: Québec), sauf en cas de niveau exceptionnel et lorsque votre alimentation est très différente de ce qui est suggéré ici --voir: [causes].

Cependant, si vous auriez un (très rare)

Dr MICHEL de LORGERIL
cardiologue et chercheur au CNRS

Dites à votre médecin que le cholestérol est innocent il vous soignera sans médicament

2007 ISBN THIERRY SOUCCAR 978 291 68 78 058
EDITIONS

"problème de cholestérol" et que vous êtes suivi-e par un médecin, essayez d'éviter les médicaments de type statine, *Lipitor (Tahor), Zocor, Pravachol, etc.*, qui n'ont pas d'effet sur la mortalité chez les femmes, et probablement même pas chez les hommes. Proposez plutôt à votre médecin d'essayer la niacine (acide nicotinique -vitamine B3-), environ 0,6g, 3 fois par jour après le repas. La niacine est de 10 à 20 fois plus économique que les *statines* et unique dans son action sur les lipides contenus dans le sang --augmentant tout ce qui est désirable (si vous prenez également une multi-vitamine) et réduisant tout ce qui pourrait être mauvais, y compris la Lp(a).

AVIS Si vous avez un problème cardiaque de type congestif, ou si vous prenez un médicament de type *statine*, envisagez un supplément de 60 mg au moins de **coenzyme Q10** (CoQ10). Souvent votre 'historique familial' est un facteur menant votre médecin à prescrire une *statine*, tandis que d'autres facteurs génétiques (le Lp(a) ou le homocystéine) auraient pu causer cet historique, et où respectivement une thérapie avec niacine + vitamine C et avec des viamines B devrait être la thérapie de choix).

Chacune des démarches précitées est importante afin de prévenir des conditions cardiovasculaires, à part du fait qu'il y a des connexions de bonne santé, générale et mentale, en allant de la maladie d'Alzheimer jusqu'à la schizophrénie, et le cancer. Abstenez

vous de fumer, prenez un minimum d'exercice, l'alcool en modération est bénéfique (vin rouge), et ne vous inquiétez pas pour les choses peu importantes.

Il y a des fortes chances qu'à long-terme, les aliments et suppléments précités peuvent réduire la chance d'attaque cardiaque de 80%, et ceci en augmentant la santé générale. *Pas mal* pour des choses que vous pouvez acheter vous-même à votre épicerie, ou à votre magasin d'aliments naturels! Il est probable qu'il est encore plus économique de procurer les suppléments par la poste (internet). Si vous trouvez, chez vous, un supplément d'aussi bonne qualité, il me ferai plaisir de le mentionner ici. **Eddie Vos**, M. Ing., Sutton (Qc) Canada, **le 1 jan. 2007.**



Good Foods

[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
 [[Diabetes & Weight](#)] [[Where](#)] [[Cholesterol](#)] [[Why](#)] [[More on Causes](#)] [[31 Tips & Info](#)] [[Index](#)]

Unprocessed foods provide original nutrients that prevent deficiencies and keep your body in peak condition to fight heart & artery decline.

FOODSTUFF	HOW MUCH	WHY
<p>Veggies -especially but with some exceptions, the "above ground" type or portion.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>To absorb their carotenoids you'll need some oil with the veggie.</p> </div>	<p>Any amount; dark colored ones are best. Fresh & little processed [steamed] is preferred.</p> <p>Go easy on the rapidly absorbed starchy carbs from potatoes.</p>	<p>The colored ones have many types of carotenoid [like vitamin A] & flavonoids [phytochemicals] that prevent all kinds of unhappy events (cancer, heart & vascular trouble, strokes, etc).</p> <p>Especially the "above-ground" portions of veggies has fiber, slow-release energy and no fat. Cabbage, broccoli & Brussels sprouts are anti-cancer. Garlic is probably heart-healthy.</p> <p>"All the way with 5 to 10 a day" --fruits and veggies that is.</p>
<p>Whole grains & (brown) rice The finer ground into a powder, the quicker their sugars are absorbed, increasing their <i>Glycemic Index</i>, not good for heart disease or diabetes.</p>	<p>Reasonable amounts - if tolerated.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>When a product says <i>enriched</i> it ain't <i>whole</i>.</p> </div>	<p>Basic food; contains many good components like fiber, minerals and vitamins that are removed in refining. Bran & germ are <i>very high in B vitamins, minerals & betaine</i>. Cheap.</p> <p>The Harvard "Nurses Study" found a reduction of over 30% in heart disease (CHD) for those eating 2½ servings per day of whole grain or rice products versus the group having them once a week (the US average being a ½ serving per day). Here's your reference: AmJCNutr; Sept. '99 (my comment is the April 2000 issue).</p>

<p>Beans, soy and lentils (legumes)</p>	<p>Reasonable amounts; combine with grains / again: if tolerated.</p>	<p>Lowers blood fats (triglycerides). High fiber, low fat. Combine with nuts & grains. Their protein may be good for the heart. Soy is good for health, heart & anti-cancer but there's discussion if its extracted protein and hormone like ingredients are healthy (veggie burgers, baby formula, sports-mixes]. Cheap.</p>
<p>Fiber Cereal bran & germ are amazing sources of betaine & choline.</p>	<p>About 30 g/day, 2x the average US intake. 50g/day helps diabetes -<i>NEJM</i> May 11 '00</p>	<p>Often missing in processed foods. Aids elimination --reducing colon cancer risk by about 1/3rd. Helps cholesterol 'turn over'. Found in whole grains (oat), fruits, beans, veggies. 2 tablespoons of <u>crushed</u> flax seed gets you most of your fiber and all your plant-based omega-3; lowers excess Lp(a) cholesterol and helps keeps you 'regular'.</p>
<p>Fruits & berries</p>	<p>Lots, within reason</p>	<p>Same as veggies. Lots of vitamins and fiber and no fats. Their flavonoids strengthen blood vessels and are strong antioxidants.</p>
<p>Eggs & Liver</p>	<p>Regularly (if you like them; fresh)</p>	<p>High in protein, B vitamins, lecithin and choline and low in fat. Proportionally raises <i>good</i> cholesterol more than <i>bad</i> [if you think that's important]. Avoid dried egg: it has oxidized cholesterol.</p>
<p>Oils Canola -rape seed is a uniquely cheap 10% source of omega-3 and otherwise much like olive. Flax oil has 5x that, but it must be used fresh and in tea spoon amounts.</p>	<p>2 teaspoons of flax or fish oil, or 2 tbsps. canola or unhydrogenated soybean oil.</p>	<p>The only 2 essential oils - "vitamin F" - are linoleic (n-6 or omega-6) and alpha-linolenic (n-3 or omega-3). These 2 polyunsaturates are the feed-stock for 3 classes of hormones, and for nerve, brain, skin and cell walls (you may want to read that again).</p> <p>The type you're probably lacking is omega-3, found <i>only</i> in fatty fish (like salmon, mackerel & sardines), in flax(lin)seed, canola type rape seed (<i>colza</i>), mustard seed, chia, candlenut, wheat germ, some melon seeds, hemp, walnuts and some green leaf veggies. It is also found in <i>unhydrogenated</i> soy and, for the record, in snake oil. [Snakes and cold water fish can't afford stiffness or arthritis in their joints</p>



As luck has it, 3 of the cheapest oils are full of omega 3: flax, canola & soy.

Second choices for nonhydrogenated canola margarines in Canada (the great stuff of the Lyon Heart Study) are *Our Compliments*, *Fleischmann's* and *'Bertolli Becel'*.

As of May 2006, the U.S. (Vt) had no margarines I'd eat apart from possibly *Olivio*. **95% of U.S. margarines are toxic with masive omega-6 (soy, corn, sunflower] and hydrogenated trans fats.**

5 pillars of heart health:

Omega-3's

Antioxidants

Potassium + magnesium

B vitamins

Fruits 'n veggies.

and are therefore full of ultra fluid omega-3 oils.] **GOOD FOR:** heart, cholesterol, triglycerides, blood fluidity, Crohn's disease, asthma, arthritis, cramps, adult diabetes, brain, MS, & smooth skin.

Omega-3's vital role is compromised by heating and hydrogenation (most soy is), by shortening, by omega-6s and by most saturated fats (but coconut and palm-kernel oils are nutritionally unique with 50% lauric-acid which has immune system roles).

Buy oils in dark containers and keep cool; they will spoil. Rancid omega-3 and -6 are toxic so they're always safer with a capsule or 2 of added vitamin E, the fat antioxidant.

DON'T overdose on omega-6 (linoleic) from corn, soy, sunflower, safflower or cottonseed. For frying I'd use butter, virgin olive, tropical (safest) or peanut oil. Virgin olive is a great oil for daily use but has no omega-3. Here's a remarkable canola info site, the heart-healthy oil.

Alcohol



1-2 glasses of red wine/day.

Avoid if there is any risk of alcoholism, or when pregnant

Low amounts reduce heart disease. **Red** wine with its flavonoids protects blood cholesterol. Best with foods containing B vitamins such as liver.* **All alcohol raises the "good" cholesterol** but white wine, liquor & factory beer are nutritionally a bit like sugar or white bread, lacking micronutrients.

* Alcohol + folic acid (a B vitamin) appears to be cardio protective while **folic acid may well remove the risk of some cancers (breast) linked to alcohol intake.** Less gall stones.

<p>Lecithin (factory soy based granules)</p>	<p>1-2 table spoons per day (also in liver, eggs, soy and beans)</p>	<p>Emulsifies fat; improves types of blood fats. It is part of our nerves & brain; forms choline (makes neuro-transmitter) and betaine (lowers homocysteine). Health food store granules have nice fatty flavor. Refrigerate.</p>
<p>Meats</p>	<p>Not really essential. Some animal farming ecologically, morally <i>and</i> nutritionally iffy</p>	<p>As fresh as possible. Aging, drying and over-frying damages or oxidizes fats and cholesterol. Such damaged fats make the basically <i>good</i> LDL go 'bad', and are best limited. Aging softens muscle from beef. Other meats are almost never 'aged'. Fish evidently never is -because of its fast spoiling -smelly- omega-3 content!</p>
<p>Water</p>	<p>Lots -within reason</p>	<p>Keeping things fluid & may cut bladder cancer by 1/2 Jan. 1st, 2008</p>


<p>GREAT label in Canada but NOT SO GREAT margarine with excessive omega-6. In Canada, Becel is 1/3rd omega-6 sunflower oil. Ingredients vary around the world.</p>	<p>Nutrition Facts Canadian Valeur nutritive <i>Becel</i> Serving Size 2 tsp. (10 g) / Portion 2 c. à thé (10 g)</p> <table border="1"> <thead> <tr> <th>Amount Teneur</th> <th>% Daily Value % valeur quotidienne</th> </tr> </thead> <tbody> <tr> <td>Calories / Calories 70</td> <td></td> </tr> <tr> <td>Total Fat / Lipides 8 g</td> <td>12 %</td> </tr> <tr> <td>Saturated / Saturés 1 g + Trans / trans 0 g</td> <td>5 %</td> </tr> <tr> <td>Polyunsaturated / polyinsaturés 3 g</td> <td></td> </tr> <tr> <td>Omega-6 / oméga-6 2.5 g</td> <td></td> </tr> <tr> <td>Omega-3 / oméga-3 0.4 g</td> <td></td> </tr> <tr> <td>Monounsaturated / monoinsaturés 3.5 g</td> <td></td> </tr> </tbody> </table>	Amount Teneur	% Daily Value % valeur quotidienne	Calories / Calories 70		Total Fat / Lipides 8 g	12 %	Saturated / Saturés 1 g + Trans / trans 0 g	5 %	Polyunsaturated / polyinsaturés 3 g		Omega-6 / oméga-6 2.5 g		Omega-3 / oméga-3 0.4 g		Monounsaturated / monoinsaturés 3.5 g		 <p>← fine ← bad ← good ← okay</p>	<p>On the right is a blend of 8 to 1 canola and olive with 1 g less omega-6 and 1g more 'mono'. This is what food giant Unilever correctly tells Canadians what to consume (link). <i>Unilever</i> however continues to poison people world-wide (check your margarine)* with massive amounts of excessive omega 6 and hydrogenated trans fats –as they prevent, corrupt or hamper clinical trials in beneficial omega-3 oils.</p> <p> good 2-2005</p>
Amount Teneur	% Daily Value % valeur quotidienne																		
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<p>*) becel, 'pro-activ', imprperial, 'can't believe', flora, calvé, blue band, country crock, 'bestfoods' generic, etc.</p>																			


Foods To Avoid

[\[Home\]](#) [\[Simple\]](#) [\[Français\]](#) [\[Good Food\]](#) [\[Bad Food\]](#) [\[Vitamins +\]](#) [\[Books & Links\]](#) [\[Email\]](#)
[\[Diabetes & Weight\]](#) [\[Where\]](#) [\[Cholesterol\]](#) [\[Why\]](#) [\[More on Causes\]](#) [\[31 Tips & Info\]](#) [\[Index\]](#)

Refining removes fiber, vitamins & other nutrients.

Avoid or use in moderation the foods below:

FOODSTUFF	AMOUNT	WHY AVOID
<p>Solid fats -- from land animals</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>* Red palm oil is a great source of vitamin A & E-like nutrients. Coconut is also healthy.</p> </div>	<p style="text-align: center;">Limit these saturated fats - but <i>some</i> are needed</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p>Safe for frying and slow to spoil. They cheaply add taste and calories</p> </div>	<p>Zero fiber, vitamins* or essential oils. They compete with the good oils for nutrients and do slow down some essential cell functions, yet are part of others.</p> <p>To absorb these mainly land-animal fats, we <i>increase</i> our production of cholesterol to make bile. Its re-intake from the bowel (if we lack vitamin C and fiber) is what raises blood cholesterol, especially the LDL type that becomes 'bad' when oxidized (if we lack vitamins).</p>
<div style="text-align: center;">  </div> <p>Trans (<i>partially**</i> hydrogenated) & most deep fry oils.</p> <p style="text-align: center;">Sorry: 99% of commercial fries [see end of page] and 90% of chips, shortenings and margarines.</p>	<p style="text-align: center;">Tasty but toxic</p> <p style="text-align: center;">There's no nutritional excuse to hydrogenate anything -and many reasons not to [NEJM; '99-6-24]</p>	<p>Factory-made hardened oils. <u>Made from, and interfere with, the "vitamin F" omega-3 (and omega-6) oils.</u> They also lower <i>good</i> and raise <i>bad</i> cholesterol. In nearly all store-bought baked goods made with shortening.</p> <p>About 40% of the fat in U.S. & Canadian donuts, fries, store-bought cookies, crackers and margarines is <i>trans</i>. 1 donut + 1 fries = 10 g (0.4 oz) of toxic-<i>trans</i>.</p> <p>Butter is better than just about any margarine for several nutritional reasons [also in Europe].</p> <p>Most research focuses on the danger of <i>trans</i> fats but not on the fact that <i>trans</i> is made from what was once called vitamin F, first and foremost of omega-3s. Not only do</p>

<p>** Dangerous transformed molecules are made in this partial process. Full hydrogenation makes less toxic saturated fats.</p>	<p>Tip: if you see <i>partial, hydrog.. or vegetable shortening</i> on a label: avoid! There are safe alternatives on the same shelf.</p>	<p>they destroy the nutrient, they make it toxic! This double effect makes hydrogenation so detrimental: the nicotine spiking scandal of the food processing world, and probably even more deadly than its sister in the cigarette industry [some scientist should <i>publish</i> on this issue].</p> 
<p>"Vegetable" oil: corn, sunflower or undefined industrial types. The "white" - factory denatured-oils.</p> <p>Fine are: virgin olive, canola, lin/flax & non hydrogenated soy -if you can't find canola- and mustard oil.</p>	<p>Avoid</p>	<p>High intakes of refined omega-6 oils like soy, corn, sunflower, safflower, <i>linola</i> and cottonseed generate too much of one class of hormones. This can cause irregular heart rhythm, cramps and other health problems. Limited <i>Unhydrogenated</i> soy does little harm since it also has some omega-3. A new reduced omega-3 cross-breed <i>Soyola</i> may soon make soy as important to avoid as <i>Linola</i>.</p> <p>If it simply says "vegetable" oil, assume it's hydrogenated, too low in micro-nutrients or too high in omega-6 polyunsaturates for good health!</p>
<p>Flour (white - refined) and <i>flour</i>-made pasta. The more finely ground the flour and the more boiled [less <i>al dente</i>] the noodle, the higher the "glycemic index" ... not a healthy thing.</p>	<p>Avoid</p> <p>The removed bran and germ are amazingly good sources of minerals and vitamins</p>	<p>They lack essential nutrients, even after partial enrichment and are proven inferior to <i>whole</i> grain products. They are linked to increased heart disease [9-'99: The Nurses' Study]. Their rapid absorption causes fast changes in sugar/insulin balance -and eventually cell resistance to both = adult diabetes [100 million cases world wide, 15 of 16 of which are adult type]. Commercial <i>semolina</i>-based pasta is low glycemic but has about as much fiber as chocolate or beer. <i>Dried</i> egg noodles have dangerous oxidized cholesterol (Italian research).</p>

<p>White rice -the more "whole", the better.</p>	<p>Moderation</p>	<p>Use the nutritionally superior and good-for-the-heart brown (whole) rice. Deficiencies in white rice lead to the discovery of B vitamins. P.S. Like starchy potatoes, also high glycemic index.</p>
<p>Sugar</p> <p>White, brown, "glucose-fructose", molasses***, corn syrup & most soft drinks</p>	<p>Avoid</p>	<p>The <i>fructose</i> half of sugar is a building block for cholesterol [and is a "gluey" molecule in your blood stream]. Zero fiber, vitamins or minerals. See Flour. Ironically, betaine, removed from sugar <i>beet</i>, is a magic key in lowering bad-for-the-heart homocysteine. ***Blackstrap molasses (especially) is a good source of calcium, magnesium, potassium and some B vitamins but it remains essentially sugar.</p>
<p>Dairy</p> <p>Not everyone puts it in the <i>avoid</i> group but it's a food with complications: NotDairy.com</p>	<p>Not essential for adults. The jury is out deciding if its calcium actually helps build bone - probably not! Homogenation is another problem.</p>	<p>75% of the world's population has some problem digesting cow's milk. Aged cheese has oxidized cholesterol --as do powdered eggs and aged or dried meat. Fat free yogurt is probably healthy. Young low-processed cheeses and yogurts -Indian curd and the like- are probably healthy foods for most of us. Jan. 1st, 2008</p>

The more you eat of these foods, the greater the need to take supplements.

Crisco® Beats Butter With A Stick.



BUT NOT NUTRITIONALLY! THEY'RE TRANS-FAT STICKS.
THE CORPORATIONS CONTROLLING THE WORLD'S MODIFIED FAT MARKETS CONSISTENTLY HIDE THE AMOUNTS OF TRANS, OMEGA-3 AND OMEGA-6 FATS, ALL VITAL CONSUMER HEALTH INFORMATION.

3.6 grams of trans fat/portion!

CANADA A 1kg

JAN 2003
11218518V7



Frozen French Fries

SHOESTRING

INGREDIENTS: POTATOES; PARTIALLY HYDROGENATED CANOLA AND/OR SOYBEAN OIL; DEXTROSE; SODIUM ACID PYROPHOSPHATE

NUTRITION INFORMATION NUTRITIONNELLE

PER 100 g SERVING (2/3 CUP) PAR PORTION DE 100 g (2/3 TASSE)
 APPROX. 10 SERVINGS PER PACKAGE/ENVIRON 10 PORTIONS PAR PAQUET

ENERGY/ÉNERGIE	158 Cal/660 kJ	CARBOHYDRATE/GLUCIDES	26 g
PROTEIN/PROTEINES	2.1 g	SUGARS/SUCRES	0 g
FAT/MATIÈRES GRASSES	5.3 g	STARCH / AMIDON	20 g
POLYUNSATURATES/POLYINSATURÉS	0.1 g	DIETARY FIBRE/FIBRES ALIMENTAIRES	2.0 g
MONOUNSATURATES/MONOSATURÉS	1.1 g	SODIUM	99 mg
SATURATES/SATURÉS	0.5 g	POTASSIUM	320 mg
CHOLESTEROL/CHOLESTEROL	0 mg		

5.3g —
 1.7g {
 —
 3.6g
trans,
7x the
sat's

COMMENT: "low in saturates" but if you add the poly, mono and saturate, you'll find 3.6g unreported trans fats per 3/4 cup of product. Commercial deep fry fat, or shortening, will **increase** the trans !

Recommended Supplements

[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
 [[Diabetes & Weight](#)] [[Where](#)] [[Cholesterol](#)] [[Why](#)] [[More on Causes](#)] [[31 Tips & Info](#)] [[Index](#)]

Health is determined by the nutrients you happen to *not* get.

SUPPLEMENT	HOW MUCH	WHY About safety, see [Comments]. About where & what to buy, see [Nuts, Bolts].
<p>Vitamin E</p> <p>Three very large studies found 40% heart disease risk reduction with supplements.</p> <p>Anti-Alzheimer's; helps diabetes and dialysis problems and it's an important anti-inflammatory.</p>	<p>about 200 IU - type 'd', not 'dl'. MIXED 'tocopherols' best. Relaxes arteries. Always take in oil or fatty meal - AJCN: 1-2004</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Here's a summary of the excellent 1999 book The Vitamin E factor</p> </div>	<p>Antioxidant; protects blood fats; keeps cholesterol "happy". Prevents blood sticking, clots and artery damage. Like vitamin C, keeps blood and cell fats non-toxic.</p> <p>Very important. Take during "fattiest" meal. Natural (d) type doubly effective --also consider: mixed "tocopherols" and possibly "mixed tocotrienols". Consider starting with lower dose. IF on Coumadin (warfarin), aspirin and/or high fish oil, use lowest dose: while preventing clotting, you could promote excessive bleeding.</p> <p>As with the heart-healthy omega-3 oils, E's cardio benefits increase with time. The evidence for prevention is stronger than for E as a cure.</p>
<p>Vitamin C -- <i>not Ester-C</i></p> <p>238 references in Am J Cl Nutr; June '99.</p> <p>Beneficial roles of very high doses in disease are probable but not well established.</p> <p>C, easy to take for granted, hard to underestimate!</p>	<p>1/2 - 4 grams. At or above lower dose in health, higher in illness.</p> <p>If prone to oxalate type kidney stones, stay below 1 g, drink sufficient water, consider vitamin B6, low salt, low protein and high calcium foods.</p>	<p>Antioxidant. Works with and recycles vitamin E; Keeps blood vessels healthy; raises 'good' & lowers Lp(a) cholesterol; speeds up bowel, reduces length & severity of colds. Improves general health: point 2 in [31 Comments] and the Linus Pauling Institute.</p> <p>Anti-viral. At 4 ¢/g, best health bargain around. 99.9% of animals make their own in "mega" amounts as do all plants. We (monkeys and guinea pigs) do not. Very high doses are remarkably safe: "..take as much as you like" [from the L. Pauling Institute's Top Ten, May 2000]. Very important. Nature's nitroglycerin, like arginine & vitamin E.</p>

<p>The B's --No reported toxicity in doses mentioned.</p> <p>(B2), B6, B12 & folic acid <i>will</i> lower artery toxic homocysteine in anyone.</p> <p>Take as a multi and <u>not</u> individually unless there is a special reason.</p>	<p>B1 25-100 mg B2 25-100 mg B3 50-600 mg B6 25-100 mg B12 100 mcg+</p> <p>B9 = folic acid 800 - 2000 mcg</p> <p>Pantothenic acid (B5) 25-200 mg</p>	<p>They help digest fats and sugars, lower <i>homocysteine</i> (-best in higher than RDA amounts) and reduce plaque.</p> <p>Very high dose plain B3 niacin (about 0.7g, taken <u>after</u> each of 3 meals) is by far the best & cheapest cholesterol "modifying" drug, raising HDL while lowering LDL, Lp(a), fibrinogen and triglycerides -<u>must</u> take with a daily <i>multi</i>. B3 is also good for your liver and brain.</p> <p>The B's are needed for 100's of processes in the body. Ultra high doses of some have anti-Alzheimer's, schizophrenia & depression links.</p> <p>The higher doses mentioned resemble Pauling's. <i>Very important</i>. Very high B6 may help carpal tunnel problems.</p>
<p>Calcium (see minerals below) + Vitamin D, the <i>sun shine vitamin</i> (very important). I'd use calcium combined with magnesium.</p>	<p>Calcium 1.2 gr. + Vitamin D 1200 IU (BMJ; Nov. 28 '98); up to 100 mcg = 4000 IU likely safe AJCN; Dec. '01)</p>	<p>1.2g Ca + 800IU D prevent bone loss and fracture at age 84! (here's your reference).</p> <p>Calcium is heart healthy: bone, boiled egg shell, oyster shell, dolomite, milk (may be) & soy, and green leaf or cabbage type veggie (which also have the bone-building vitamin K). D = extremely important: fish liver [oil], fatty fish, high-sun on skin; science ref's: "D"-council & Oregon State.</p>
<p>Magnesium (for more and for potassium**, see minerals, below)</p>	<p>1/2 - 1 gr.</p>	<p>Crucial for heart function; it, and potassium** regulate heart beat. Mg is needed for 325 reactions, not the least the lowering of toxic blood homocysteine. 90% of Mg is removed from refined grains and rice! Most Americans don't get the RDA of about 0.4 gr. <i>Very important</i> and few side effects.</p>
<p>Selenium (see minerals, below)</p>	<p>200 mcg (max. 800 mcg)</p>	<p>Antioxidant, works with vitamins E and C. A lack causes heart disease & cancer which are, in part, selenium deficiency diseases. <i>Very important</i>.</p>
<p>CoQ10 (CoenzymeQ10, or ubiquinone)</p>	<p>60 to 300 mg</p>	<p>Essential for heart & blood pressure; larger dose for serious heart trouble or cancer; vital when taking a "statin" drug. Body makes less when older (using most B vitamins and magnesium). Safe but expensive (\$1/100mg). Doubly absorbed when chewed in oily food.</p>

<p>Vitamin F - with the F from Fat ... An old term that shouldn't be lost.</p> <p>α-Linolenic; omega-3 (ω-3 or n-3) type oil.</p> <p>Linoleic; omega-6 (ω-6 or n-6) type oil.</p>	<p>Omega-3: 1 to 2 tea spoons flax/lin or fish, or 2 table spoons canola oil [like: colza, rape, raap, kool, mustard], or soy -only if you can't find canola.</p> <p>Other types of omega-3 in fatty fish.</p> <p>Most people get too much n-6.</p>	<p>True vitamins: needed for heart-health. The only 2 fat types ("poly"-unsaturates) the body can not make itself.</p> <p>Omega-3 type alpha-linolenic is scarce in the Western food supply but key to heart, general and mental health. Fish oil works like a-linolenic, see: [Good Food] and point 1 in [31 Comments] and lowers triglycerides.</p> <p>Omega-6 type linoleic (corn, sun, saff, soy, cotton) is rarely lacking and is often excessive in relation to n-3 linolenic. Probably the most common "vitamin overdose" in Western diets at 2x-3x the ISSFAL maximum for most people. The cancer-link keeps on popping up in the high omega-6 research.</p>
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***Minerals** are complicated as there are many and it *is* possible to overdose. Intakes depend on the degree of food processing and amounts in the soil. Plants *make* vitamins but must *mine* their minerals -if not in the soil, it won't be in the plant. Here's some info about their roles -*not* necessarily as supplements- in health and disease.

MINERAL	COMMON	OPTIMUM	HELPS	SOURCE
<p>Selenium; vital: US Nat. Inst. of Health</p> <p>200 mcg before and in HIV / AIDS & virus infections (book or free 700k pdf): low selenium lowers resistance - including to viruses that <i>steal</i> your selenium-making things seriously worse.</p> <p>Low selenium makes every infection worse since it's needed in your T lymphocyte defense system.</p>	<p>NE, SE and NW N-Am. & North Europe, New Zealand, parts of China: under 50 mcg/day & often insufficient.</p> <p>Southern Europe and a central N-S band in N-Am. seem to have adequate amounts in the soil. Large local differences (also: point 14 in Comments).</p>	<p>200-800mcg.</p> <p>The higher dose is above what is generally accepted as safe but may well slash the US cancer death rate by about one quarter [my guess] as well as the spread of AIDS [someone else's guess].</p> <p>Zero reported deaths from supplements. Toxicity likely at 2500 mcg/d.</p>	<p>Cancer, heart disease, heart muscle, muscle, cataracts, blood pressure, some virus diseases, aging</p> <p>Overdose risk - as per the top link in the left column- should be weighed against potentially 6 fewer cancer deaths per 100 N. Americans on high dose selenium.</p>	<p>Some whole grains, fish, Brazil nuts, kidney and, more reliably, supplements</p> <p>Twinlab's Daily One Cap, a Best Buy, almost uniquely contains an excellent 200 mcg, see [Nuts, Bolts] for all sources.</p>

Silicon	20 - 50 mg (not well absorbed)	5 - 10 mg or higher	Bones, joints, heart, skin, poor (weak) collagen	Unrefined plants and greens, whole grain, horsetail plant. Dietary fiber (oats, barley, and rice) and wine.
Chromium	30 mcg (US) often insufficient	200-400 mcg with selenium	Diabetes; helps insulin, cholesterol, acne, sugar use	Liver, grains, root veggies, green pepper.
Vanadium	10 - 60 mg often insufficient	100 mcg+	Diabetes; higher doses replace insulin	Shell fish, parsley, some processed foods, grains, beans.
Boron	1.5 mg often insufficient	3 - 9 mg	Bone health, diabetes, infection, arthritis	Water, fruits, veggies.
Manganese	2.5 - 4 mg often insufficient	5-15 mg	Bone, cartilage, heart, epilepsy, diabetes, cataracts	Unrefined vegetarian; not in animal products.
Copper The <i>only</i> nutrient deficiency known to raise cholesterol. Without it artery structure is not made, or repaired!	0.7 -1.5 mg often insufficient	1-2 mg (1/10th of your zinc intake) Like selenium & iron, don't overdose on copper	Heart, arthritis, hair color, artery bursts (aneurysm, stroke), bad collagen, high LDL, poor clotting, Parkinson's	Nuts, grains, bracelets, supplements. Soft or acidic water: excessive amounts from copper pipes.
Zinc --Part of 300 enzymes , the nutritional screw drivers, hammers and pliers of our body (protein and fancy oils being the nuts, bolts and batteries, and glucose or fats the fuel).	7-14 mg Low intake is linked to 1.4% of the world's deaths! [WHO] Rules 2000 cell functions in addition to those 300 enzymes!	10 - 30 mg	Arthritis, skin, infection, bad collagen, vision, prostate, diabetes, etc. Much more from BMJ; 2002-11-9.	Shell fish, nuts, grains, beans, potatoes, fish and meat.
Molybdenum	75-250 mcg or less	? 75-250 mcg	Organs, enzymes, cancer	Whole grains, beans, liver.

<p>Potassium** U.S. (AIM; 2000-9-11): young adults: 3.4 g/d; high fruit + veggies: 8 - 11 g/d; urban whites: 2.4 g/d; often elderly or Blacks: ~1 g/d. 20% of hospitalized patients have low potassium.</p>	<p>varies; often insufficient --in relation to sodium i.e. kitchen salt; lost in processing.</p>	<p>2 - 5.6 gr (US RDA)** Try to get it from your food</p>	<p>Heart, heart failure, stroke, hypertension, cell function, sweating, diuretics, irregular heart beat**, muscle, fatigue, nerves, etc. etc.</p>	<p>Bananas, celery, fruits (prune, orange) and veggies (potato, broccoli, beets), meat, fish, salt substitutes. Zero in: white flour, sugar & fats.</p>
<p>Sodium (salt)</p>	<p>most often high or excessive</p>	<p>1/10th of potassium</p>	<p>Cell function, always sufficient; raises blood pressure</p>	<p>Salted foods; source of vital iodine -check your area.</p>
<p>Iron I'd only supplement -or use iron fortified foods- if a medical need has been established.</p>	<p>16 mg (Sweden) often insufficient</p>	<p>10 - 15 mg don't overdose</p>	<p>Blood; premenopausal women only; <i>some</i> infants, teens & elderly</p>	<p>Liver, nuts, grains & greens; vitamin C increases absorption</p>
<p>Magnesium (see above) Mg has it's own amazing site here. Here's the US N.I.H. and here's a Medline heart disease link.</p>	<p>300 mg (Sweden) often insufficient; very important</p>	<p>500 - 1000 mg (at least half of calcium intake)</p>	<p>Heart, heart failure, irregular heart beat, bone, PMS, cramps, fatigue, diabetes, stroke, diuretic use, etc.</p>	<p>Whole grains, nuts, soy, greens, root veggies & supplements</p>
<p>Calcium (see above)</p>	<p>500 mg (Belgium) often insufficient</p>	<p>1000 - 2000 mg (1-2g)</p>	<p>Bone, heart, general, blood pressure</p>	<p>Bone, greens, grains, nuts & milk. Not in meats.</p>

Mineral needs are complicated because each person's situation is unique while you or your health-advisor will never know which minerals were in the soil where your food was grown, how much was taken up, or by how much milling and cooking reduced their amount.

Each nutrient is important and wise supplementation with *some* minerals is a practical way to insure that you get the optimum amounts.

****POTASSIUM:** "It now appears quite possible that a lack of potassium in the coronary muscles may be **the major cause of death from heart disease in humans** " [Adelle Davis, '72]. 95% of potassium is *inside* cells, as opposed to sodium, and magnesium keeps it there. Because raw plant-based diets are high in potassium & low in sodium, *well* functioning kidneys remove potassium faster than sodium. Disposal of vegetable cook-water, high salt or low magnesium diets, sweating and *most* diuretics can cause fatal depletions of potassium and/or magnesium. References: 1.) irregular heart beat: [JAMA; '99-6-16](#); 2.) blood pressure: [JAMA; '97-5-28](#); 3.) stroke: [NEJM; '87-1-29](#) [60% of risk at 4.3 vs. 2.4g/d]; 4.) review [BMJ; '01-9-1](#) [10 mmole = ~0.4 g].

Supplement Facts *Excellent sample multi - take: at end largest meal*
Serving Size 1 Tablet

TABLETS ARE EASY ON SYSTEM		Per 1 Tablet
Vitamin A (as Beta Carotene)	10000 IU	don't take more
Vitamin C (as ascorbic acid)	250 mg	a great start
Vitamin D-2 (calciferol)	400 IU	great
Vitamin E (as d-Alpha)= natural	200 IU	excellent
Vitamin K	40 mcg	fine
Thiamin (Vitamin B-1)	25 mg	excellent
Riboflavin (Vitamin B-2)	25 mg	great
Niacin (Vitamin B-3) could be higher	25 mg	good
Vitamin B-6	25 mg	super
Folate (Folic Acid) 800-1000 is better	400 mcg	good start
Vitamin B-12	100 mcg	super
Biotin	25 mcg	good
Pantothenic Acid	25 mg	super
Calcium try to get over 1200 mg	50 mg	add separate
Iron normally: use "no-iron"	9 mg	only if needed
Iodine	150 mcg	great
Magnesium try to get over 500 mg	50 mg	a start
Zinc important	15 mg	great
Selenium important 200 mcg = good	105 mcg	a great start
Copper	1 mg	don't take more
Manganese	3 mg	good
Chromium (= 0.12 mg)	120 mcg	good
Potassium	45 mg	insignificant
PABA (para-aminobenzoic acid)	25 mg	excellent
Lutein	0.5 mg	o.k.
Betaine (as Betaine Hydrochloride)	25 mg	little betaine
Bioflavonoids	25 mg	?
Choline	25 mg	insignificant
Inositol	25 mg	insignificant
Lecithin	25 mg	insignificant

NOTES: the "25" concept is for marketing and not for nutritional considerations. Last 7 not vital. Comments by E. Vos

LEFT: LINK TO *CARLSON LABS*

BELOW: LINK TO GOOD INFO PAGE OF *CENTRUM*

MORE INFO re **SOURCES** ON THE "NUTS & BOLTS" PAGE

Centrum Silver 1 TABLET

EACH TABLET CONTAINS	% DV
VITAMIN A 5000 IU	100%
(20% AS BETA-CAROTENE)	
VITAMIN C 60 MG	100%
VITAMIN D 400 IU	100%
VITAMIN E 45 IU	150%
VITAMIN K 10 MCG	12%
THIAMIN 1.5 MG	B1 100%
RIBOFLAVIN 1.7 MG	B2 100%
NIACIN 20 MG	B3 100%
VITAMIN B6 3 MG	150%
FOLIC ACID 400 MCG	100%
VITAMIN B12 25 MCG	417%
BIOTIN 30 MCG	10%
PANTOTHENIC ACID 10MG	100%
CALCIUM 200 MG	20%
PHOSPHORUS 48 MG	5%
IODINE 150 MCG	100%
MAGNESIUM 100 MG	25%
ZINC 15 MG	100%
SELENIUM 20 MCG	29%
COPPER 2 MG	100%
MANGANESE 2 MG	100%
CHROMIUM 150 MCG	125%
MOLYBDENUM 75 MCG	100%
CHLORIDE 72 MG	2%
POTASSIUM 80 MG	2%
BORON 150 MCG	*
NICKEL 5 MCG	*
SILICON 2 MG	*
VANADIUM 10 MCG	*
LUTEIN 250 MCG	*

WAY better than nothing - certainly not the best.

GOOD: folic acid, zinc, calcium, magnesium and some others.

POOR: B1, B2, B3, B6 & vitamin C.

DEFICIENT: selenium.

EXCESSIVE for most: iron.

America's most advertized brand
Comments by E.V.

P.S. High selenium -100-200 mcg- is a benchmark of a great multi. 2008-1-1

Good Books & Links

[\[Home\]](#) [\[Simple\]](#) [\[Français\]](#) [\[Good Food\]](#) [\[Bad Food\]](#) [\[Vitamins +\]](#) [\[Books & Links\]](#) [\[Email\]](#)
[\[Diabetes & Weight\]](#) [\[Where\]](#) [\[Cholesterol\]](#) [\[Why\]](#) [\[More on Causes\]](#) [\[31 Tips & Info\]](#) [\[Index\]](#)

You are only as healthy as your blood system

Blood transports and processes nutrients, fuel, oxygen, repair, defense and waste materials. Arteries are composed of muscle cells in a cartilage/collagen/elastin 'ground substance', and lined with sensitive skin cells. When blood passages get infected or block, harden, spasm or burst we have a stroke, heart attack, angina, cramp, pain, or loss of muscle, nerve or brain function. Optimum amounts of dozens of nutrients are needed to keep a happy blood system. Prevention is easier than repair. "Nutrition is Circulation" [R. Kunin]. *Any body movement* promotes circulation, including that of lymph, the stuff that bathes all cells and that outweighs blood by several times and that does not have a pump of its own.

GREAT BOOKS --but some older ones are not up-to-date on omega-3's.

- McCully K - [Homocysteine Revolution '97-'00](#) {**THE #1 choice:** [The Heart Revolution](#)}
- [Murray/Pizzorno - Encyclopedia of Natural Medicine '99](#) {*the best handbook*}
- Ottoboni A & F - [Modern Nutritional Diseases '02](#) {like this site: [prevention](#)}
- Pauling L - [How to Live Longer & Feel Better '85](#) {[2006 cheap re-issue: wonderful](#)}
- Hoffer/Walker - [Smart Nutrients '94](#) {mental health, general health & aging}
- Erasmus U - [Fats that Heal Fats that Kill '93](#) {a little master piece [book](#), [site](#)}
- Davis A - [Let's Eat Right & Let's Get Well '70 & '65](#) {2 still relevant oldies}
- Williams RJ - [Nutrition Against Disease '71](#) {research; prophetic classic}
- Haas E - [Staying Healthy with Nutrition '90](#) {good. All about [Heart Disease](#)}
- Dunne L - [Nutrition Almanac '95](#) {simplest guide and a good reference}
- Papas A - [The Vitamin E Factor '99](#) {most complete guide; [full E info here](#)}
- Simopoulos A - [The Omega Diet '99](#) {health & omega-3; [book info here](#)}
- Cooney C - [Methyl Magic '99](#) {from homocysteine to betaine; [book info](#)}
- Enig M - [Know Your Fats '00](#) {[anti-trans](#) and rehabilitates the saturates}
- Ravnskov U - [Cholesterol Myths '02](#) {the science: [site](#), [links](#) and [book](#)}
- Kendrick M - [Great Cholesterol Con -The Truth '07](#) {[Sharp, funny \[yes!\]](#)}
- Graveline D - [Lipitor Thief of Memory '04](#) {The Misguided War on Cholesterol}
- Cohen E - [Alzheimer's Disease '99](#) {Helpful, with best [prevention options](#)}
- Hoffer A - [Adventures in Psychiatry '05](#) {Schizophrenia; nutritional medicine [vital insight](#)}
- Kauffman J - [Malignant Medical Myths '06](#) {a book to make you healthier and wealthier}

BOOK SOURCES: Abebooks.com used books; Amazon.com new books + descriptions, or comparison shop (U.S. only) at: bestbookbuys.com

WEIGHTLOSS / DIABETES / HEALTHY AGING:

Challem/Berkson/Smith - [Syndrome X '00](#). High-carbohydrate, high-sugar, low-nutrient foods promote insulin resistance (adult diabetes): normal to high insulin with high blood glucose (both are toxic), high blood fats, high blood pressure, high middle body weight (central-obesity), premature aging, circulation problems and heart disease: [the Anti-X diet](#). Read *with* the Whitaker book and consider "balancing" with the less stringent stages of the [Atkins**](#) book --and blend in some:

Willett W - [Eat, Drink and be Healthy '01](#) {great, but *passé* (wrong) about omega-6 oils, saturated fat & cholesterol}, and mix in some Whitaker J - [Reversing Diabetes '01](#) {[superb book](#) / rather [commercial website](#)}

WEB SITES --All links will open on new screens

[Medline](#) - Put key-words or names in [search engine](#) and click "go". Then select numbers, choose "abstract" and click "display" [to not see rats and mice: click "limits" and select "human"]. A medical research library at home! **SUPERB** conventional medicine consumer info at [MedlinePlus](#). And here, type in a food and the [USDA](#) tells you what's in it.

[DoctorYourself.com](#) - Free [news letter](#), [2005 book](#) & things like [heart failure](#).

[Cholesterol Myths](#) - Swedish MD; a must-read *before going the drug route*.

[Thincs.org](#) - [Cholesterol Sceptics](#): low cholesterol, a misplaced priority.

[Orthomolecular](#)- Nutritional Medicine: cure & prevention. The place to start.

[Nutrition Friendly Doctors](#) [World-Wide] and [U.S.A.](#) and/or [Canada](#).

[Life Extension Foundation](#) - Disease [treatments](#), suggestions & [products](#).

[The Alternative Medicine Review](#) - Publisher (Thorne), great stuff!

[NutritionFocus](#) - Reports, nutrients, herbs and info. Good site.

[AltMedicine.com](#) - Frank Grazian's Alternative Medicine / Nutrition site.

[Arbor Nutrition Guide](#) - Australian surfing of the nutritional oceans.

[Int'l Health News](#) - Disease summaries; news letter. [Atrial Fibrillation](#).

[The Nutrition Reporter](#) - Excellent web access & clearly written.

[British Medical Journal](#) - Once a most dynamic journal, now limited free access.

[Cardiologist Colin Rose](#) - Refreshing and non commercial overview of the real issues.

[Am. Heart Ass'n](#) - [Diet & Drugs](#); Not practical and badly needs a *by-pass*.

[Linus Pauling Institute](#) - Institute doing research -and [nutrition overview](#).

[The Pauling Therapy Site](#) - Activist site -- but lots of food for thought.
[CforYourself](#) - Promotes awareness of vitamin C. Here's [heart disease](#).
[The Journal of Nutrition](#) - Scientific; great info about [individual nutrients](#).
[Am. J of Clinical Nutrition](#) - Top in science. Ditto for: [Asia-Pacific](#).
[Journal Club on the Web](#) - Independent study & drug analysis - search.
[MedlinePlus](#) and [RxList](#) - Drug effects; use both and ['ask a fellow patient'](#).
[Egg Nutrition Center](#) - Good general nutrition info. Here's [CanadaEgg.ca](#)
[The Fish-Foundation.org.uk](#) - why omega-3's are heart-healthy.
[Pathology, Un. of Utah](#) - Photos: oops --a reality check. Great [animation](#).
[Pathology Guy](#) - More 'fun' technical stuff; [nutrition tidbits](#).
[HeartInfo.org](#) - Commercial site, drug ads and info. Also: [NASPE](#).
[HowThingsWork - Heart](#) - [Attack & Angina](#) and [Diagnosis](#) for patients.
[1st-Spot.net](#) - Compact list about heart and hypertension.
[Cardioglob.com](#) - Spanish heart site. Multi language links: [prevention](#).
[Paleolithic Diet Page](#) - What our "natural food" eating ancestors ate.
 [Health Care Information Resources](#) - Amazing list of links.
 [Canadian Health Network](#) - Health Canada's links; also in [French](#).
[LifeForecast](#) - Similar ideas to this site with different take.
[I.A.H.F.](#) - Keeping supplements legal; [links](#). A much needed effort.
[RedFlagsDaily](#) - Reality checks and up to date vital info; not all free.
[FatsOfLife](#) - Fats, Oils, Lipids: articles. Also current: [The Oily Press](#).

Sites singled out for comment.



[Dr. Atkins](#) was a 'low-carb weight loss' and nutrition guy. His science about flour, sugar, glucose-fructose and supplements is excellent and his ideas about omega-3, homocysteine and refined-food mainstream. [Atkins](#) with its supplements and [food pyramid](#) can make a balanced nutritional mix and effective low sugar-'n-starch weight-loss program ([1](#), [2](#)) Like any 'diet', it has risks *without* the prescribed vegetables and vitamins. Polar opposite 'low-fat' vegetarian Ornish also uses [high but excellent levels of supplements](#). 'Atkins' *must* be considered through *all its 4 stages* to see where it can benefit obesity and diabetes -and alleged risks of 'ketosis'. Ketones are made in the burning of fat and are a yardstick for results in his diet. Since body-fat doesn't just evaporate, Atkins calls ketosis: 'one of life's charmed gifts. It's as delightful as sex and sunshine, and it has fewer drawbacks.' Now *there's* a science project! Comparing 4 diets in 2007: Low-carb [Atkins 'still' best for weight loss](#).



[Cholesterol-Heart Disease](#)

Uncle Sam's [National Heart, Lung and](#)

Blood Instutite promotes drugs well beyond where the FDA, another department, allows drug companies to go: '*.. if you have an LDL level of over 130 mg/dl [3.3 mmol/L], you will generally need [sic] to take medicine*' This is a dangerous generalization not supported by **science** and one that promotes cancer, congestive heart failure and more if you use a *statin*. Note: when comparing regions in Europe, there are several where 10% *less* 'bad' LDL is associated with 4 times *more* heart disease. Explain *that* Mr. NHLBI ... and how to explain the 'exceptionally low' heart disease in **this** population with LDL at 186? Just *one* ugly fact disproves an entire handsome theory, remember Columbus? The site hardly deals with nutrition apart from avoiding fat and cholesterol, and 'unlimited' egg *substitute****. Yet, blindly *avoiding* fat and cholesterol and following the USDA food pyramid will do little for your heart (see **Harvard**) as such thinking is rapidly becoming the flat-earth theory of heart



disease --apart from being the very cause of adult diabetes since that pyramid has flour as its largest food-group.

For future historians, safely preserved, **here** is the 1994-2001 NHLBI / NCEP: if *one* parent has cholesterol over 240 (6.1 mmol/L), as of age 2 a child should have his cholesterol checked ... statins and sterols for baby? Then the NHLBI gives you the green light for brownies, fat free mayo [?], gelatin desert, fruit leather and turkey dogs [food clones..?], safflower oil for cooking [huh], tub margarine [see below], cheese- and cup cake, lemon wafers, bread sticks [so far zero fiber] and "ready-to-eat cereals often" [if *that* doesn't promote adult diabetes, nothing will]. Here's a jewel: '**Avoid fish oil pills because they are high in fat and calories**'; let's hope so but apart from the fact that they would make you poor and smell like a fish *before* they would make you fat, they have omega-3s that *prevent* death by heart disease. While avoiding saturated fats and cholesterol per se won't kill anyone (since you *make* both of them), avoiding omega-3 oils surely will kill many (since you *don't* make them). ***For non Americans: egg substitute is colorized egg white with some vitamins to replace a few of the yolk nutrients.



The U.S. Margarine Manufacturers own a deceptive website called the **HealthyFridge.org**. These are the people who continue their century old practice of churning out hydrogenated (and thus low omega-3) margarines without honest *trans* and omega **labels**. Their National Spokesman is a heart attack victim and **Viagra expert**, football **coach** **Ditka**. *Your* fridge may well have margarine with



only 0.5% omega-3 but 25% *trans* -and not the heart-healthy high omega-3 canola type used in **Lyon** and available in **Canada**. Even *average* U.S. tub margarine has about 15x more *trans* than omega-3. So avoid margarines -sorry coach

and, incidentally, why the switch from [Viagra to 'it works for me' Levitra](#) and why would anyone take advice from such poster-boy of arterial dysfunction.



95% of U.S. margarines and anything else hydrogenated doesn't belong in a Healthy Fridge [[ISSFAL](#)] no matter how smooth their websites. Coach Ditka and his handlers, play with *your* health: never mind our *trans*, the bad player is *their* cholesterol. All this, to mask a *trans-fat* doping scandal inflicted upon an unsuspecting world (sorry, coach, for being a bad-sport). Shame on that industry: informative labels and healthy spreads are truly cheap and easy to make!

P.S. #1: Hydrogenation may be called 'partial hardening' on European labels. In the U.S., 'zero *trans*' on the label may be a whopping 0.49 grams 'per serving'. This process is *much more harmful* than once thought according to the current science in *prostaglandins*, the COX enzyme directed, 20-carbon-oil-made hormones called *eicosanoids*; eicosa = 20 in Greek.

P.S. #2: In Europe most margarines have less *trans* but also excessive omega-6 *linoleic*, and food labels are even less informative than in the U.S. **In summary:** *partially* hydrogenated fat is hazardous to your health and industry websites suggesting otherwise are hazardous to your health.



Prevention through nutrition is vital since the alternatives (the drug, fat and cholesterol approaches) have essentially not slowed the later-in-life diseases. Such misfocussed thinking is fed by the drug, food, candy, margarine and medical industries. On the other hand, *Tufts* researcher Meydani: "Inclusion of 200 IU vitamin E along with 5-8

servings of fruit and vegetables... potentially reduces the risk of cardiovascular disease and improves immune function in later life" [[AJCN; 6-'00](#)]. Add to that a multi, whole foods and some omega-3 oil and you get The Nutrition Diet, the focus and subtitle of this website. Quoting another *Tufts* professor, Blumberg, at a 2001 conference about hospitalized patients: "[a] multi-vitamin is the most conservative thing one should consider." His concern was the universal multiple nutrient deficiencies in the elderly, possibly the group with most to lose from the inaction generated by the industry led debate. **Nov. 6th, 2007.**

Adult (-type 2-) Diabetes

[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
 [[Diabetes & Weight](#)] [[Where](#)] [[Cholesterol](#)] [[Why](#)] [[More on Causes](#)] [[31 Tips & Info](#)] [[Index](#)]

Why a Type 2 Diabetes Page in a Heart-Health Site?

Well, both are related to nutrition and both can be prevented or helped by the same foods and supplements. **Type 2 diabetes is normally preceded by decades of slowly increasing insulin, blood sugar, and belt-size** (*.. and it is always healthier to sit on your fat than have your fat sit on you*). Early prevention is very effective but there come a point when insulin production permanently breaks down. Smart nutrition (and portion control) can first prevent **overweight** and **diabetes**, and therefore eventually **heart disease**.

Both conditions are epidemic with 1 in 13 Americans and 1 in 3 of those over age 60 developing 'adult' diabetes. *Most* will develop heart, kidney, nerve and blood vessel diseases for an amazing 1/4th of total health care costs! Other countries have similar increasing rates. Later-in-life diabetes (during pregnancy being a warning) is an eventual one-way track to heart disease.

What makes a diabetic? **Simply put: when your pre-breakfast blood sugar (plasma glucose) gets over 126 mg/dL or 7 mmol/L.** Another measure is when 2 hours after taking a dose of glucose the blood level is still over 200 mg/dL (11.1 mmol/L), with over 140 (7.8) *starting* to suggest a problem. Pre-breakfast 95 (5.3) is good, under 36 (2) is seriously low blood sugar, while above 180 (10) a safety-valve opens that sends glucose to the urine. To confuse anybody, the numbers changed from mg to the 18 times smaller mmole, they increase by 14% between 'blood' and 'plasma' in syringe samples -but the numbers for 'blood drop' and 'syringe-plasma' are similar. **However, it's the big picture that counts, not the decimal points of the reading.** This is *one* area where blood tests are important since serious organ and **foot damage (!)** can happen early.

In early-age 'type 1' diabetes the body stops making insulin [[see: Wikipedia](#)] needed to process sugar and starch. *Type 1* is about 5% of all diabetes. There is no cure and insulin, a protein, must be dosed by injection in proportion to sugar and starch intake. *Type 1* can sometimes be prevented with vitamin B-3 in people with declining insulin -which can show years before irreversible damage [[see ENDIT](#) or [here](#)].



In the now exploding 'type 2' diabetes, which develops in obese kids or at a more "mature" age [**Non Insulin Dependent Diabetes Mellitus, NIDDM** or maturity-onset], the problem is initially not a *lack* of insulin but body cells became insensitive (resistant) to its effects. Increasing amounts of insulin try to "push the gas pedal" but the system doesn't react (by taking fuel, glucose, into the cells). In type 2, blood-sugar and (therefore) blood-insulin *both* become high which is a double problem.

This double problem is that:

- 1. High insulin** changes excess blood-sugar into fat around the belly, and worse, it keeps it there. Insulin makes and keeps you fat;
- 2. High blood-sugar** makes blood vessels and blood components 'sticky', slowly destroying your 'arterial tree'. Using frying temperatures when making meals makes that effect worse.



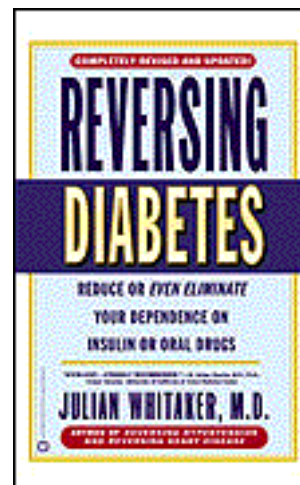
Both effects reduce blood flow to all areas of the body especially to the feet, eyes and kidneys. Fat, around the body or as triglycerides in the blood does nothing to promote blood circulation. **Good circulation is 50%-of-good-health**. This is why weight control, "shaking-up-the-fat" (exercise), a good multi-vitamin with minerals and extra magnesium, omega-3 [ω-3 or n-3] oils and high-fiber, low glycemic index foods are all-important. Unhelpful are omega-6 oils like corn, soy or sunflower while vitamin D works *better* than insulin drugs! High waist size (belt length, regardless of your height) with high blood triglycerides (fats), high sugar, high insulin and high blood pressure, all lead to ill-health. This group of symptoms is known as Syndrome X, the Metabolic Syndrome.



I remind you that this author is not a doctor and knows absolutely nothing about your specific situation. Keeping this in mind, here are some ideas that will help you see the global picture of diabetes (**kidney, leg, eye and heart disease**) more clearly.

1. **READ** two pieces of literature. First, the 2001 paperback [*Reversing Diabetes*](#) by Dr. Whitaker. His [website](#) is very commercial but his science is truly excellent: a *vital* \$15 investment. Second, read the [article \(PDF\)](#) from the Nurses' Study by Harvard that found **2.5 x** the risk getting diabetes is those eating most rapidly absorbed, low-fiber carbs.

The main 'offending' foods are: flour, boiled, baked or fried potatoes, *most* breakfast cereals and [the like](#) and noodles made from flour. Regular noodles made from semolina, gritty hard wheat core particles as in couscous, are low glycemic -- but also low in fiber and nutrients. Floury starches and carbs are high on the 'glycemic index' as they rapidly shoot glucose into your bloodstream for insulin to deal with, which eventually causes harm. **P.S.** Unlike some oils and proteins, no carbs are classified as 'essential nutrients'.



2. **INCREASE** fiber-rich vegetables and fruits that have not been processed much, beans and *partially whole kernel* grains (not finely ground) and omega-3 oils (flax, canola and fatty fish). Fiber, especially soluble fiber (gel or pectin-like fiber), is truly diabetes and heart healthy as it slows and regulates the speed of the uptake of foods--which is what diabetes control is all about. *All* agree about the major benefit of fiber -and it's cheaper than a glucose test strip. Every 10 g/day increase in fiber reduces diabetes risk by up to 30%!

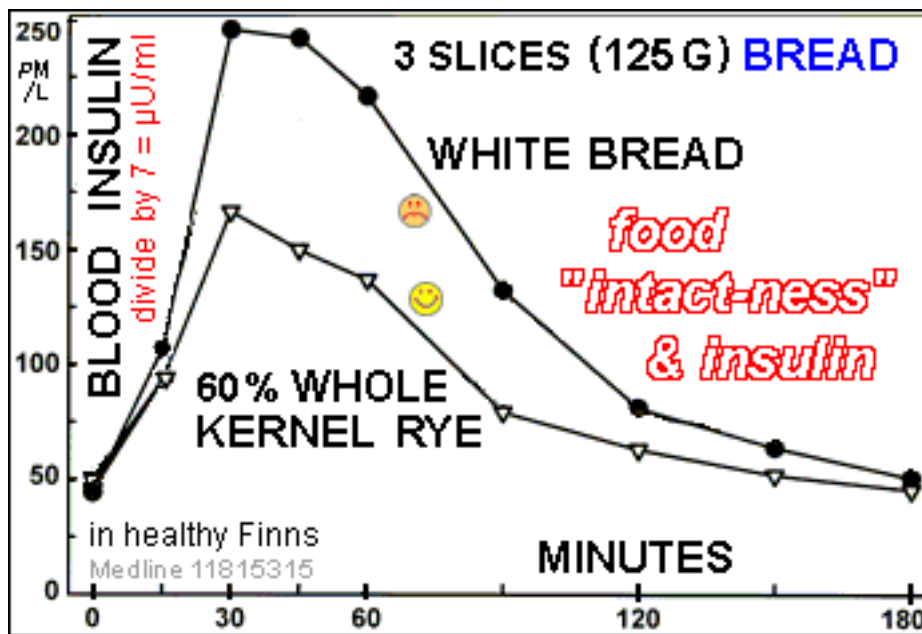
Glycemic Index (blue) of common servings:

- *Most fruits: 1-4 g fiber; **GI: 40-60**
- *Beans (cup, cooked): 5-14 g **35-50**
- *Broad(Fava) beans (cup): 9 g **110**
- *Large potato with peel: 6 g; **110**
- *Meat, eggs, fat & most dairy: 0 g **low**
- *Most breakfast cereals: 0 g; **80-100**
- *Hot whole cereal: 5-10 g; **85**
- *Some bran cereals: 5-10 g; **40-50**
- *Donuts, regular breads: 0 g; **100-110**

GLYCEMIC INDEX TRIAL (high index version of the same food)

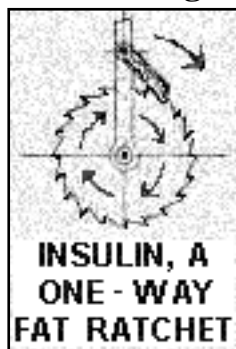
- * *Whole* grain barley bread 58 (as flour 100; like wheat *flour* bread)
- * Semolina [grainy wheat core] pasta** 57 (ground as flour 100)
- * Rice pre-boiled 65 (sticky rice 86)
- * Whole kernel barley porridge 35 (same, barley flour 98)
- * Whole lentils or red beans 36 (same, ground to flour 70)
- * Whole white or brown beans 40 (same, flour 74)

These foods were given to type 2 diabetics. Despite being *identical* in fiber and chemical composition, the 'less ground' more intact foods reduced the amounts of glucose and insulin by 30% and a blood clot factor (PAI) by 50%. A very important study in [Diabetes Care](#).

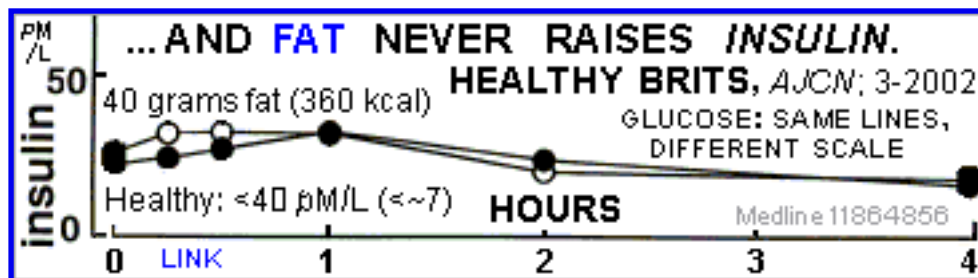


3. **LEARN ABOUT** low *glycemic index* foods and *glycemic load*. Not all foods release their sugars or starches at the same speed. The slow release foods, typically the least refined foods, have demonstrated benefits. Here is a full list of [glycemic indexes](#). A large portion of a high *glycemic index* food creates a large *glycemic*

load. Not good. The graph was simplified from [AJCN, Feb. 2002](#). The 45 minute

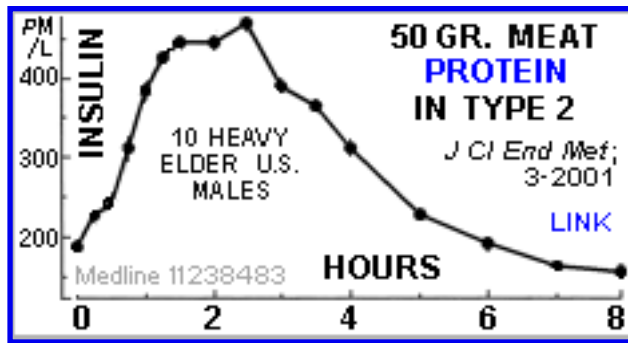


long blood sugar peaks, from 15-60 minutes, were *identical* but the presence of intact whole grain structure reduced the *insulin* that was triggered by 50% [!]. This lingering high "white bread insulin" lowered the 1.5 to 3 hour blood sugar to *below* starting levels. This causes *cravings* and *jitters* precisely because, despite of low blood-sugar, insulin prevents you from using fat reserves to satisfy such energy craving. [And, logically, only sugar, flour, starch and maybe alcohol can fix such craving --but not fat or protein]. Remember: lingering insulin makes and keeps you fat, ratcheting fat into the cells --and then preventing its use for energy.



The good news about fat is that it *never* raises either insulin or glucose. This allows you to burn fat from food and from storage, if not

swamped by insulin made for sugar or starch, so you lose weight. *Carbs* make you *make* fat especially when you have high-insulin, and regardless your starting weight ([AJCN, Jan. 2003](#)).



Protein raises insulin, as shown, but while up to $\frac{1}{2}$ gets used like sugar, protein doesn't raise blood glucose. The only thing eaten here was 236 gr. (8 oz.) lean meat, providing 50 grams of protein. Similarly, also fructose (50% of plain sugar) has little effect on glucose but it raises insulin -and cholesterol. Notice in the last graph that

type 2 diabetics have high fasting (morning) insulin. **In type 2, the challenge is to keep insulin *and* glucose low. Yes, lowering carbs is safe and a valid option.**

4. **DECREASE YOUR WEIGHT** if it is high: **obesity** leads to **type 2** and **heart disease**. [Skinny diabetics, those *not* producing the fat-maker insulin, lose sugar-calories in the urine since they can't use sugar for fat or fuel.] ALL authorities agree with weight reduction benefits in type 2, as often blood-sugar returns *below* the cut-off point [and technically you're cured]. As fat-cells lose fats, there are relatively more insulin receptors active per unit of cell surface and the system works better. Moderate exercise (many benefits) and cutting down on (tasty and well-deserved) calories are ways to normalize weight. Easier said than done. Then there are changes in diet: try the wisdom in the books by *Whitaker, Challem, Atkins* and *Willett* (the 4 books in one frame in the [links](#) list). None of these books has all the answers but *combined* they provide a wealth of information about how weight loss can be part of a pleasant life-style. Low-carb **Atkins 'still' best for weight loss.** Another low carb high nutrient diet is **Montignac.** Obesity is stored fat, and you'll *never* lose fat if you over supply with starch, carbs and refined cereals...

5. **ABOUT DRUGS...** there are drugs that "raise insulin" [sic], make it work better or reduce blood-sugar by other means. In later stages of adult-diabetes [very high blood-sugar], injected insulin [at increased levels also a poison] is often added to drugs taken by mouth. On the surface this *seems* like good strategy as blood-sugar and therefore the blood marker HbA(1c) become more normal, for a while. This marker "A-one-C" tells how many "frosted" (sugar-damaged) red blood cells you have, evidently an important thing to reduce; less than 6% is normal.



The problem with drugs is that there are effectively no studies showing they actually postpone grief *and* improve **survival.** Many promising drugs and the patients on them are no longer with us. With drugs you can "normalize-the-numbers" to make the lab report look better but there are few **studies** proving that this delivers a long-term health benefit. Drug *don't* fix underlying problems, have side-effects and decreasing effects with time. *Intuitively* you would think that any drug that lowers blood-sugar [or cholesterol or blood pressure] *should* be beneficial

but this is certainly not [evident](#) [UKPDS in *BMJ* '01-10-13: 854; changed into [recommendations](#) but further debated [here](#)]. Ask your doctor to explain this debate; it ain't easy for them either! [NEJM Sept. 9, 2004](#): the big *new* class of drugs in 20 years [with names ending on *-azone* (*Avandia*, *Actos*, other) increase weight and promote [congestive heart failure](#) [a [2007 editorial](#): 'not the answer'] ... while biguanide (metformin) and sulfonyl-urea (glipizide) [harden the aorta](#); sulfonyl-urea increases [deaths](#).

The [New England Journal](#) of Feb. 7 2002 had a land-mark study about the superiority of non-drug approaches: "*Since current methods of treating diabetes are inadequate... The hypothesis that type 2 diabetes is preventable is supported by observational studies and two clinical trials of diet, exercise, or both in persons at high risk for the disease but not by studies of drugs used to treat diabetes.*"

[Later-in-life, type 2, diabetes](#) becomes a hard to manage "condition" with much confusion and changing recommendations between individuals or expert groups. Mega-dollars are spent on and by each diabetic so the money interests are huge. Adding to the confusion, fundamental understandings (like the role of [inflammation](#)) are starting to emerge. It is a long way from studies to medical consensus and to supermarkets and restaurants --where the causes and solutions to diabetes and heart disease certainly lie. On a lighter note, there seems agreement (for people who are not driving, type 1, pregnant or alcoholic) that "...moderate [alcohol](#) consumption in the diet should not be discouraged", the benefit of a [drink-or-two](#), and now [coffee](#)!

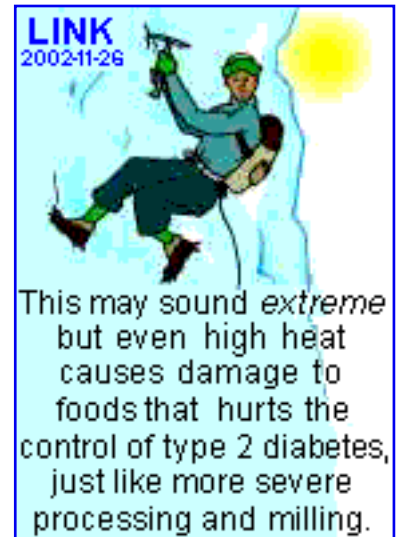
[In California](#) the *doubled* rate of type 2 diabetes in the 1990's was evidently *not* caused by a lack of drugs but, just maybe, by more low-fiber processed-foods [or by sitting in front of computers...]. But unlike your computer, you don't want your food to be *fast*. You can slow down digestion with high fiber-foods *without* the loss of taste or food appeal (you'd never know the difference). About 30 g of fiber per day, about double current intakes and *especially* the soluble mucus-like variety, is one of the main keys to heart, blood-sugar and cholesterol health. And so we return to the apple-a-day concept... [3.7g fiber/medium size apple with skin].



**American
Diabetes
Association**

The 2002 recommendations are [here](#) but you'll find few solutions and the word "may" is used over 150 times. In fact, they *may* be wrong that you should eat at most 1 egg worth of cholesterol per day [if LDL-cholesterol is over 100 (2.6)] and eat about 10% of your energy as polyunsaturates (*never before* in human history..., way in excess of the [ISSFAL](#) safe upper limit, *and* a probable cause of type 2 diabetes as part of the [Israeli Paradox](#)). Nuts are *not* a good source of omega-3 oils, only walnuts are ... while avoiding saturated fat and cholesterol will certainly not prevent diabetes. Fact: [even saturated fat -with carb avoidance- may be helpful!](#)

The '[avoid cholesterol and fat](#)' idea was a marriage-condition of the American Heart Association, an alliance to unify advice, yet fats used to be the energy source of choice for diabetics. Fat does not generate insulin or glucose so you can see why this was and fat per se does not cause [obesity](#). Diabetes causes heart disease but heart disease *never* causes diabetes [this author in: [DiabetesInControl.com](#) about cholesterol]. Too bad for diabetes prevention that the ADA caved-in to the AHA about fats and the high glycemic index junk-cereals they endorse, like *Cocoa Puffs* & *Count Chocula*. A massive *Lipitor* trial also showed no cholesterol-lowering benefit in diabetics: [Lancet 2003](#). On a positive note, everybody agrees that weightloss, exercise and high fiber intakes are good -- about 50g/day, now *that's* a lot of fiber [ensure your multivitamin has zinc].



Many groups suggest to follow your doctor's advice about drugs. This may be valid but *only* after you have both read and digested the book *Reversing Diabetes* that deals with the many benefits of the non-drug approaches. As in any such disease, why not keep copies of lab-reports (with [MedlinePlus](#) drug descriptions) and start a file on yourself. Knowledge is power, and unless *you* convince yourself about benefits, changes tend to be temporary while with drugs [the slide continues](#). Jan. 1st, 2008. [About the author](#).



Background Info

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[\[Diabetes & Weight\]](#) [\[Where\]](#) [\[Cholesterol\]](#) [\[Why\]](#) [\[More on Causes\]](#) [\[31 Tips & Info\]](#) [\[Index\]](#)

SOURCES OF SUPPLEMENTS. There are many others in North America, few in Europe and elsewhere. Most are incomplete or of poor value. Here are some good products. This site gets no cut from any of them. Good luck avoiding the hype that infiltrates vitamin and supplement sales. 2 sample labels with comments at the bottom of [Vitamins +](#) page.

Mail-order world wide: *Bronson* 1-800-235-3200 or 1-801-756-5670 [Twinlab, the new owner]. Product: #93, a cheap no iron no frill, however low in selenium [multi](#). Also good are C, #49, calcium/ magnesium, #111, and selenium, #88. Their best vitamin E is #71 and CoQ10 is #342 -chewed with fatty food; always expensive. Also: *Nutrition Warehouse* 1-800-645-2929. Their multi #1122 or #1123 seems good; add selenium #1068, calcium/magnesium, C and E #1103. **NOW** has cheap C. **U.K.:** consider [PatrickHolford](#) and in **Australia:** [GoldenGlow's Super One-A-Day](#). Cheap [vitamin D](#), [betaine](#) and [niacin](#).



U.S. Health-food store, [Daily-One-Caps](#) -click on *Multis* [[contact for source.](#)]. **The world's best multi** for the price, partially because of the included 200 mcg selenium & 200 mcg chromium. Take "*no iron*" unless the need is diagnosed or probable. About U.S.\$40-70 per year; most B's start at the 25 mg; B12 100 mcg [great], folic acid 800 mcg [good], beta carotene 10 000 IU [take no more], natural d type E 100 IU [a deal], C at 150 mg [good start]; zinc 15 mg, manganese 5 mg and copper 2 mg; also iodine and 400 IU D [vital], and some other good stuff. You might add: E -about 200 or 400 IU every other day; '*mixed*' tocopherols are best, otherwise d type, and probably some C and certainly a '*calcium / magnesium + D*' supplement [and CoQ10 if heart failure is a concern or are on a '*statin*' drug]. **P.S.** Most vitamins especially capsules are best taken after your largest meal. Fish oil, however, stays down best when taken at the beginning of a meal. If you know of a similarly priced product in your area that is as complete, please e-mail.

Internet: Twinlab *Daily One Caps*, no iron VERY cheap [\$19 to

\$20/180 = 11¢/day] at these links VitaCost.com or Swanson.com In a store, ask them to match 'the internet price' and often they will!



CarlsonLabs.com's [Super 2 Daily](#) is the Cadillac of multis; not the cheapest but very complete, including fish oil and excellent amounts of C, E, selenium and more (no iron). Here's their [Super 1 Daily](#). Any company with the integrity NOT to sell *Ester-C* deserves a special mention; they seem to put their customer's health up front.

* **🇨🇦** Canada's best: *Nu-Life* has some superb *multis* at *Loblaw's* and elsewhere. Find stores U.S & Canada: tel (866) 583 0646 or for "[Ultimate](#)" (best: 50+) formula. Next best is: *Kirkland 'Forte Senior'* at *Costco*.



* **🇨🇦** Canadian **🇨🇦**: *Jamieson: Super VitaVim* (info: most B's at the 30 mg level -9¢US/day; you may want to add 200 mcg selenium, some magnesium and possibly CoQ10 -mail orders to *non* Canadians only.

* **🇨🇦** Canadian **🇨🇦**: *Swiss: Super Swiss One "50"* (too much iron, no selenium but most B's at 50 mg -product 169003)- or "*Vege*", no iron and zero [!] selenium -product 153302.

THERAPEUTIC DOSES OF SUPPLEMENTS If you want to 'improve' your cholesterol profile: NIACIN (mega-dose vitamin B3) *after* meals. **Lowers:** 1. "bad" LDL-cholesterol; 2. triglycerides; 3. fibrinogen; 4. Lp(a). It uniquely **raises** good HDL-cholesterol. There is a shown benefit on heart disease and overall mortality. **Study use & use medical follow-up (per day: 4 to 6 pills of 1/2 g each).** There are 2 effective kinds: pure = safe, very effective, very cheap ([\\$50/kg at LEF.org](#)) but for about the 1st week causes a brief harmless *but* impressive hot-flush (less if taken 15-30 minutes *after* a meal) and timed release = possibly safe, less flushing. **Raising the 'good' cholesterol (protein) with exercise and moderate alcohol -combination therapy: running from bar to bar- or with a drug-dose niacin is clearly more important than lowering the 'bad'.** *Consumer Reports 3-1996:* "Niacin. This vitamin is the cheapest and often most effective cholesterol lowering drug." In fact it is by far **the most effective HDL raising 'drug'**, the one 'risk factor' in the cholesterol department in women and elderly, if not in men, but it *must* be taken with a multivitamin also.

To fight colds, flu & infections: High dose vitamin C (4 - 20 grams or more). You *will* still catch colds but you will *probably* remain mobile and *certainly* be better faster. Also anti-cancer link at higher doses of C, selenium, CoQ10

Best vitamin types and sources; background info

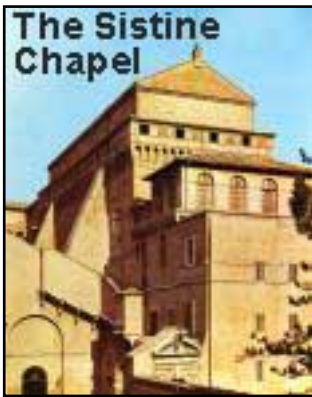
(about 100- 350 mg), lots of carotenoid containing foods, beets and vegetarianism; study use.

To improve special conditions: In some cases higher than suggested doses of some of the B vitamins may be beneficial. Comments to be added later.

Jan. 1, 2008

WHY ... ARTERIES FAIL

[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
[[Diabetes & Weight](#)] [[Where](#)] [[Cholesterol](#)] [[Why](#)] [[More on Causes](#)] [[31 Tips & Info](#)] [[Index](#)]



The Master Corrosive, *Homo-Cysteine* (the 21st amino acid, the Evil one)

Homo-cysteine, a toxic amino acid, *corrodes cysteine* the shape and function giving 'sulfur cement' of our protein structure and machinery. Proteins are necklaces made from 20 different amino acids, folded into precise shapes. The sulfur in one of the 'beads', *cysteine*, does much of the folding. *Cysteine* is thus fundamental to prevent protein aging, and as goes the expression, all roads (of research) lead to Rome, ironically, *home* of the '*Cysteine*' chapel.

Sulfur vulcanizes liquid latex into rubber shapes and sulfur acts similarly in structural and working proteins. That sulfur is part of the 3-carbon *cysteine*, made from the 4-carbon *homocysteine*, itself only made from the 5-carbon essential amino acid *methionine* [*thio* means sulfur, *meth* means a 1-carbon atom group like methane, natural gas, and -*ine* stands for protein, nitrogen or amino, like ammonia].

Requiring most B-vitamins, the '4' is recycled back into *methionine* or turned into 3-carbon *cysteine*.

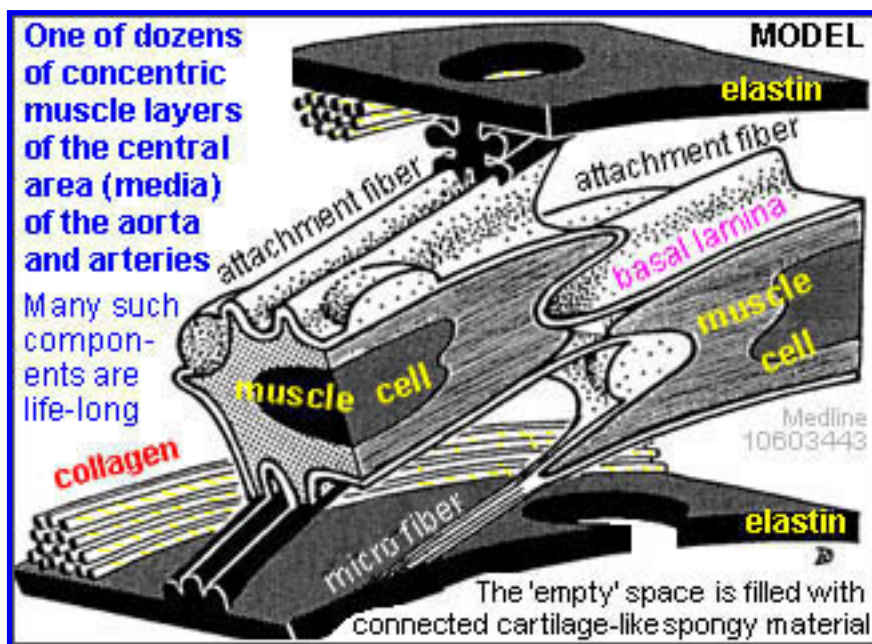
Homocysteine is even more toxic when it forms a high-energy '*Evil Ring*', a '*Lethal Lactone*' looking for proteins to corrode with its sulfur and oxygen, opening at x-x in the picture.

When *homocysteine* '*thiolates*' a short-living protein like insulin with 51 amino acids, of which 6 are *cysteine* forming 3 sulfur 'bridges', we simply make new. When it corrodes the protein of LDL-cholesterol droplets that lives 2.5 days, things get serious. *Homocysteine* makes it a Trojan horse and affects its function. However, if corrosion is to a life-long protein with 380 *cysteines* like micro-fiber *fibrillin*, the damage can be artery fatal, as in Marfan syndrome and *homo-cysteine-uria*.

Because 'straight' *homocysteine* can fold back onto itself, if it would wind up in a protein during synthesis it could **cleave** the protein. Thus, it is removed .. but in that reactive ring shape --doing damage '*thiolating*' the cell and surrounding structure.



So, what's to corrode in an artery?



Well, I like to think of arteries as a thick multi-layer of muscle cells sandwiched between 2 structural layers. Through the outside layer come 300 capillaries per square millimeter feeding the central muscle cells. On the inside is a cell-hostile layer of just structure. There are basically 3 materials: collagen, elastin with its fibers (about 18, all proteins) and proteo-glycans (stuff also found in cartilage). Here it gets interesting. Most of these 3 structural families can be life-

long and *all* are corroded, poorly made or poorly repaired in the presence of that 'Evil sulfur ring'. The 3 structural families are:

1. Collagen, bundles of 3-strand rope stronger than nylon of which the ends during assembly are kept from unraveling by *cysteine* sulfur 'bridges'. The ropes then are interconnected by OH-lysine '*amino*' bridges that cannot be made when *homo*-cysteine is either present or when it has destroyed the protein (*lysyl-oxidase*) making this 'glue'. Copper and vitamins B6 and C are also needed for this 'rope glue'. In bone, calcium builds along this rope, in artery the rope keeps it from ballooning under pressure.

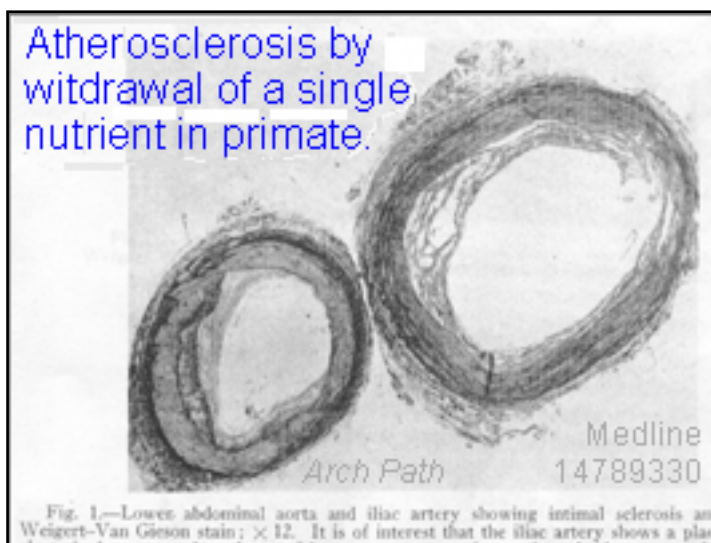
2. Elastin, an amazing 'rubber' NOT vulcanized by sulfur but by the above mentioned OH-lysine bridges, here called desmosine x-links. Again here: high *homo*-cysteine, no copper or vitamins B6 and C, no bridges. This stuff is so tough, it survives a week-long bath in hot acid or alkaline. It is secreted and then assembled into life-long 'apartments' by the fragile muscle cells, protecting them in multi layer (*laminae*) rooms with windows (*fenestrations*) and elastin frames and curtains. Without such 'happy homes' muscle cells may wander into the inside layer of the artery where they [and the artery owner] come to grief. Similar to long-living collagen, elastin's half-life is 70 years (the good news) but the rest has to be maintained or made anew!

3. Proteo-glycans, a family of water filled 'compressive' and 'chemical storage' molecules of arteries and joint cartilage. It has '*di-cysteine*' sulfur bridges in a 'core-protein', and bottle brush like arms made from glucosamine and chondroitin sulfates. That is the stuff that works for joint pain and repair. *Homo*-cysteine can damage the protein and add excess sulfate to the glycan (sugar-like) arms, affecting function and making it attract LDL droplets that should not be there.

Lowering *homo*-cysteine

When *methionine* gives up a 1-carbon *methyl* group [-CH₃] to one of about 100 enzymes (protein machines), it turns into that temporary toxin. Strategies :

First, eat foods with *methylys*, like eggs, liver, soybean lecithin and foods with betaine (tri-*methyl*-glycine, TMG) such as wheat bran, germ and spinach. Eating such 'high choline' foods (including beans, rice, peas, lentils) we don't waste *methyl* from methionine for non vital roles. Insufficient (B-vitamin regenerated) *methionine* and DNA looks like if radiated by X-rays, says [Bruce Ames](#). Think: cancer, [birth and pregnancy problems](#) (spine, harelip, clubfoot, preeclampsia, other).



Imagine that *most* artery (heart) disease, cancer, Alzheimer's, bone and joint disease does not happen when you keep your life-long homocysteine under SIX [6 μmol/L]. This theory of *healthy aging* has not been proven wrong, uniting all roads of research. When all their road signs read *Rome*, it may be [wise to heed their advice](#). When your car or proteins are damaged by corrosion, can a 'car'diologist, blood pressure or cholesterol drug really restore youth?

Third, coffee (sorry), smoking, mental stress, high-dose niacin (to raise the 'happy' HDL-cholesterol) and drugs like fibrate and methotrexate raise *homo*-cysteine. In each case a multi-vitamin as described [here](#) reverses that corrosive increase.

Know your *homo*-cysteine



That magic number of SIX is found in 15 year old U.S. males and 22 year old females since folic acid was added to the flour supply. *Homo*-cysteine was '22' in over 90 year olds near Boston and in 24 year olds in [New Delhi](#) where the common foods have essentially no folic acid and vitamin B12. Seven cents per year would add folic acid, B12 and vitamin B6 to the flour supply. This would drop homocysteine by half.

Instead, a monumental heart disease epidemic in India and other countries where micro-nutrients are under supplied is under way. Massive. Less than \$0.50 per year is the world-price to replenish required amounts of most micro-nutrients. Scientists argue and politicians don't act while Rome burns!

It's '*genetic*' is a way for experts to tell you they don't know, and genes can't explain epidemics anyhow, but in homocysteine genes do play roles in about 10% of us. **Women** have life-long exposure to *homo*-cysteine 10-15% below men and get heart attacks 10

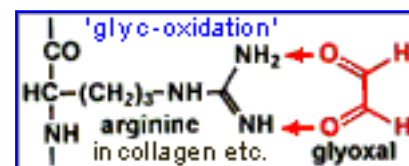
years later in life. You can't change your genes or gender and may never know your homocysteine level so taking a high 'potency' multi-vitamin + mineral supplement is brilliant prevention, even helping 'bad genes' and leveling the gender gap for men. Such 'anti-rust' supplements slowly repair existing damage resulting in [25% fewer strokes](#) and, in stroke victims, an amazing [80% fewer hip fractures](#) by improving collagen quality! Nutrients nourish reactions, drugs don't. When homocysteine is over 'six', you're under nourished for your genes and long-term health.

Our defenses against *homo-cysteine*

Our defenses: first, we sacrifice about 20 grams per day of blood proteins that bind homocysteine, *albumin* and *hemoglobin*. Next, we have *Para-Oxo-Nase*, PON. Like a sister protein [BLH](#) but that works within the cell, PON detoxifies the 'lethal lactone' formed whenever cells make proteins in the presence of homocysteine. PON travels outside the cell with the happy HDL-(good)cholesterol protein, the cleaning machine for oxidized fats and toxins!

Homo-cysteine is not alone

Homo-cysteine corrosion starts early and targets sulfur in proteins as well as the 'free' amino of their *lysine*. Excess blood sugar in diabetes also generates toxins attacking *lysine* as well as the aminos of *arginine*, two component vital for structure and function. One such toxin is [glyoxal](#) (C₂H₂O₂), also made by [frying](#)



temperatures. Now we have two types of corrosives teaming up to destroy proteins in arteries, capillaries and finally organs and bone. While *homo-cysteine* is controllable by B-vitamins, blood sugar is made from sugars and starch and the more rapidly they are released from refined or cooked foods, the worse diabetic control becomes. In diabetes, a measure of sugar protein damage is 'glycated' hemoglobin called HbA(1c). When proteins are degraded by *thiolation* and [glycation, so is their owner](#). Damage prevention is key since repair is never easy. The story is more complex but these are the basics!

Homo sapiens is alone

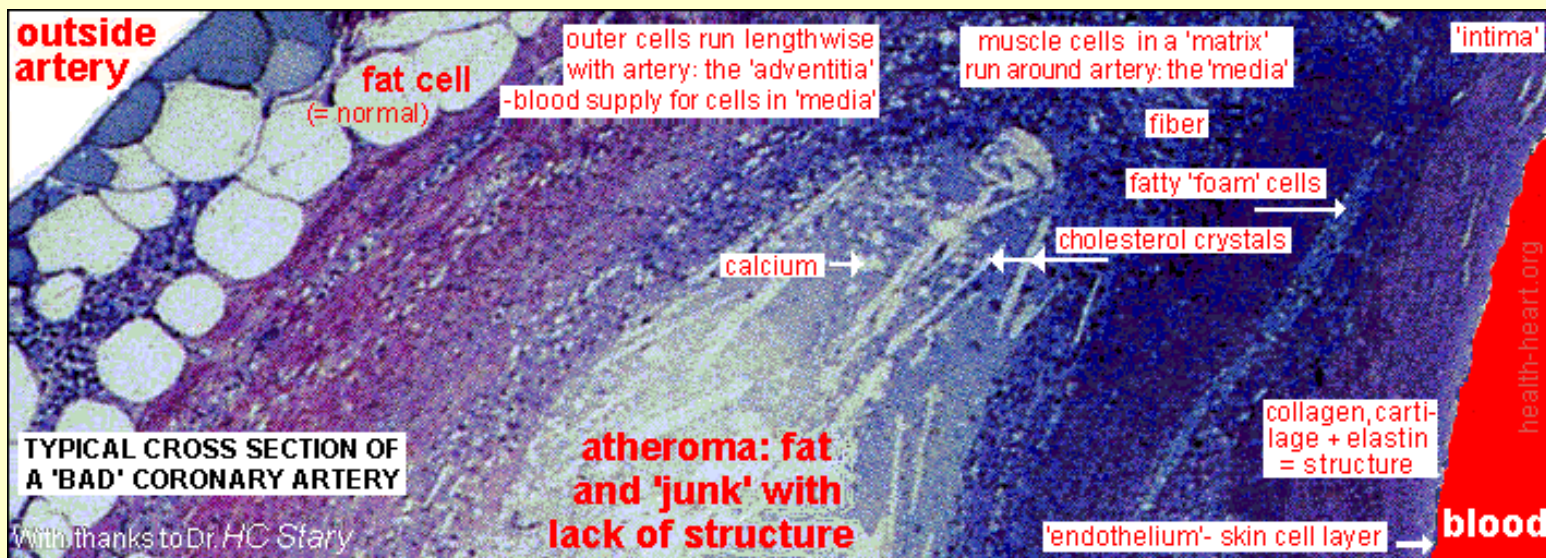
We're alone in the animal kingdom using fire and electricity and naturally getting *athero-sclerosis*. We poison rabbits with cholesterol and remove genes from mice as '*mouse models*' to study what anyone near a food store does 'naturally'. Big fish eat little fish, raw and whole but we deep-fry fish fillets, tasty nutrient disasters! For starters, *anything* we do to food destroys folic acid and B6, anything. U.S. heart deaths started dropping when vitamins were added to breakfast cereals in the 1960's and the decline [trippled](#) after 1998 when folic acid fortification became mandatory; [more so in stroke deaths](#). High dose multi-vitamin / mineral pills help us back to micro-nutrient levels of our animal cousins. Add omega-3 oils (canola, fish) and some magnesium, in a calcium + vitamin D combo, and long-term heart health may be a reality.

[More about benefits](#) -- and with thanks for critique to Drs. Genest, Kauffman, McCully and Rose.

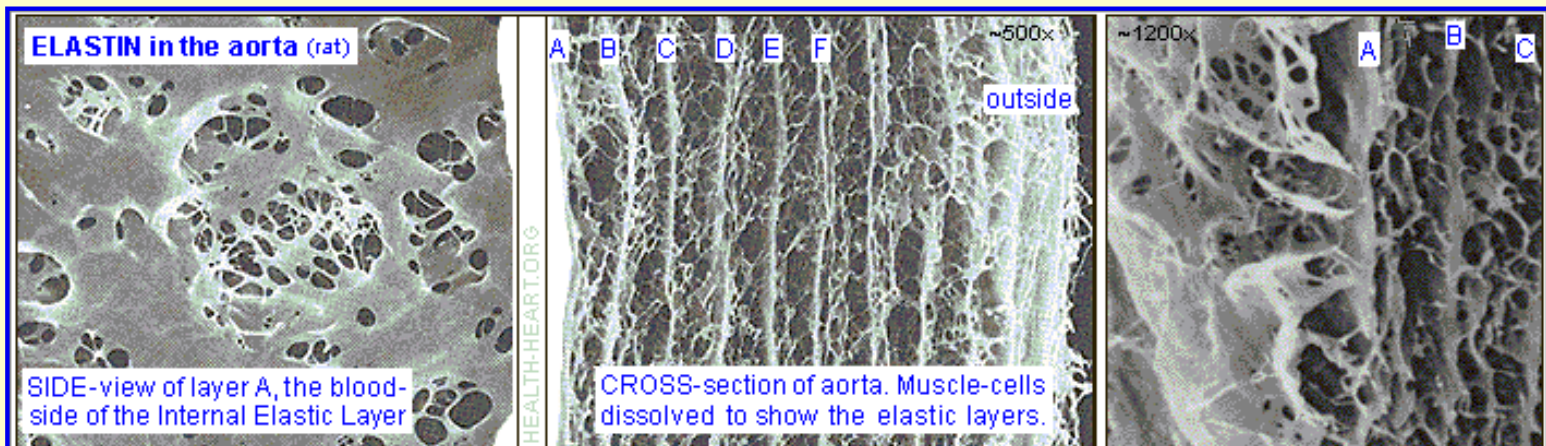
BELOW, some related pictures and text from the home page. [Eddie Vos Jan. 1, 2008.](#)

- ARTERY DECLINE: CHEMICAL CORROSION, NOT THE CLOGGING OF A DRAIN PIPE -

Over simplified best theory. Arteries walls 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*), unravels *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 destroy 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 our permanent structural proteins.]



'Marinate' an artery for 5 days in hot acid and only elastic tissue is left! *Homo*-cysteine has special ways of slowly degrading and 'unraveling' this *fiber reinforced elastomer* architecture. Not good.



ELASTIN is tough knitted (desmosine x-linked) film and lace-like fiber curtains over windows (fenestrations), or connections between the layers (laminae) that position the muscle cells. 'Happy' elastin may live 70 years (half-life); its 'fibrillin' fiber is life-long. BOTH are degraded, poorly made or repaired when there is excess homocysteine (insufficient vitamins B2, B6, B9 folate, B12, betaine, choline) or lack of copper, zinc, magnesium and vitamin C. Best sources of these micronutrients: an above RDA/DV multi-vit/mineral + vit.C, and liver. Elastin may be 'naturally' degraded for repair by MMP's (protein enzymes) when unleashed by TIMP's (trigger locks, removed by repair cells), inflammation, oxidized LDL, homo cysteine. When elastin 'crumbles', calcium and cholesterol fill the voids. Photos J. Nakatake Med1 4084354

Above ... when 'poisoned' by a homo-cysteine like substance, the cells from the right start migrating left, inward, past the Internal Elastic Layer that just barely retains them before they start disorganizing the inside layer, intima, near the blood stream. Notice the dome or tent-like bulges that formed in the elastin.

Causes & Solutions

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THE ORTHODOX APPROACH

The American Heart Association suggests in general *not* to take supplements, to limit *saturated* fats, and to eat less than 300 mg cholesterol per day. However:

1. It has never been shown that *not* taking supplements improves health, or helps prevent heart disease, or any other disease for that matter.
2. In the real world, very low-cholesterol NCEP step 2 diets *fail* to significantly raise *good* or lower *bad* cholesterol in high risk people ([N Eng J Med.; 98-7-2](#)).
3. Many foods with cholesterol (liver and eggs) have key vitamins, proteins and other nutrients.
4. Groups can have 4 times *more* heart disease despite 10% *less* 'bad' cholesterol ... while over age 65, cholesterol is no risk-factor anyway (*low* cholesterol is!).
5. Low *saturated-fat* diets may be dangerously low in vitamins A, E and omega-3 --while some saturated fats (butter and coconut for example) may well have health benefits.
6. Benefits of drug-based prevention are poorly documented and results uncertain:



One sad example of medical prevention involved intensive cholesterol and blood pressure lowering drugs and 15 doctor visits over 5 years. Five years *after* the trial 50% more treated men had died (67 vs 46) and 2½ times more cardio-deaths had occurred (34 vs 14)



Two classic studies:

1. After 2 years most (75%) of the *not*-treated patients "remained free of major cardiac events" but only 57% of those told to *avoid* animal fat, dairy, butter, eggs, fried food and cholesterol but given olive oil, and only 52% of those on the same restrictions given (omega-6) corn oil. Conclusion: ...*under the circumstances of this trial corn oil cannot be recommended in the treatment of ischaemic heart disease.*" [[Br Med J](#); June 1965 (1): 1531-3].

Predictably the *corn oil* group had less cholesterol but little good *that* did! While this trial clearly *suggests* harm, it *proves* with 99% probability the *lack of benefit* of these dietary changes [...and of low cholesterol levels *per se*].

2. The large U.S. "Veterans Trial" (corn oil) found

than in the untreated half of 1222 high-risk Finnish men -[JAMA; '91-9-4](#). Is there evidence that, 20 years later, *your* drugs and *your* doctor are better than those in Finland? [Ask your doctor](#) but mention the famous [U.S. MrFit](#) trial: 45,000 man-years of "Special Intervention Program" and 5 more deaths after 7 years.

[The Lancet; Aug. 29 '98](#): "Despite reductions in the age-related incidence of myocardial infarction and improved control

of blood pressure the prevalence of heart failure does not seem to be falling and may be rising." This very technical reference concerns heart failure and reveals the current state of medical "management" and prevention of heart conditions [in 2 words: *not great*].

slightly less heart disease wiped out by *doubled* cancer deaths (58.4 +/-0.6% survivors after 8 long years; *Circ.*; 1969 (40): Suppl. II and Pearce and Dayton in *Lancet*; '71: 464-7). 94 out of 100 similar studies would find more cancer after 8 years --which is more "cancer-causing" than smoking for 8 years!

There is no benefit in failure so there were no subsequent high-linoleic "*omega-6 polyunsaturate*" trials. Corn, soy, sunflower, safflower and cottonseed oils all have between 51-75% linoleic.

The omega-6 / cancer link reappears regularly, as in the "[Israeli Paradox](#)": this country's very high omega-6 (soy) and low animal fat intake *should* produce little heart disease but instead there are respectively 1.5, 2.3 and 3.4x higher rates of diabetes, heart disease and cancer in Jewish versus non-Jewish Israelis. **P.S.** Omega-3 studies with fish or canola *do* have happier results.



ONLY THE REAR WHEEL PUSHES BUT THE FRONT WHEEL TURNS AT THE SAME SPEED. IS "HIGH-CHOLESTEROL" A **result** (FRONT WHEEL) OR A **cause** (DRIVING WHEEL) OF HEART DISEASE, THAT IS THE BIG QUESTION.

The cholesterol-focused approach is dangerous (except possibly in about 0.3% of people with genetic problems -a group worse hit by the 90 year old epidemic). The drug and care-giver industries promote the idea that lowering cholesterol, using "vegetable" oils or low-fat foods (high in sugar and starch) would be beneficial but their science is, at best, shaky.

The focus of the AHA and AMA is to raise "good" and lower "bad" cholesterol. This tide is slowly turning, even at the AHA: when its Dr. Sixsmith was asked on the Nov. 10 '99 NBC *Today* show if people should take a *multi*, her answer was: "Absolutely." **The purpose**

of life is life and the content of life is time. Can you afford to wait .. ?

For sure, cholesterol, blood pressure, adult diabetes and impotence are important as wakeup calls. Yet, by "normalizing" the numbers with drugs one masks the symptoms without fixing underlying problems. Statin drugs, for example, slow the bicycle by (1) putting a brake on one of the wheels and (2) by reducing the "battery acid" [CoQ10] in the *energizers* of *all* cells, including those of the heart muscle ... think: muscle pain or (congestive) heart failure.

HOW ARTERY DISEASE STARTS & HOW TO AVOID IT

Modified Morrison/Willis/Stone/Pauling/Rath/McCully/others --
Heart Disease as Micronutrient Deficiency and Artery Repair Mechanism

"High cholesterol" **doesn't explain** blood vessel diseases as most people with heart disease have "normal" cholesterol levels ([BMJ; March 7 '98](#)).

About survival: "...odds ratios [risk] for *total* mortality were heterogeneous [mixed], generally failing to support the value of cholesterol reduction." - [AmJEpid; March 1 '99](#) and points 20 and 21 in [31 Tips & Comments](#)].

While some cholesterol related factors do play roles [low "good" HDL and LDL made "bad" by containing oxygen damaged cholesterol or fats, homocysteine or clotting protein Lp(a)], any lowering alone of cholesterol has made no dent in early heart disease.

The "**bad cholesterol**" concept is truly misleading. The "good" cholesterol particle HDL is beneficial and impossible to "corrupt" but its larger sister, the LDL globule, can be corrupted to which your arteries take offense. All these "corrupting influences" can be minimized with the proper foods and supplements, even or especially so if your genetics are not on your side.

The best indicator for most people in the cholesterol department is a high ratio of total to HDL cholesterol, over 9 being high risk and below 4 being best - [Criqui/Golomb, AJM 1998](#). Total cholesterol 240 (6.2) with HDL 40 (1.03) would give you a ratio of 6.

Niacin -about 2 g/day- is the most effective agent to shift this ratio by raising the good HDL and (with vitamin C and L carnitine) will lower Lp(a) while the *multi* lowers the homocysteine in your LDL. Avoiding dried milk and egg-powder containing foods or eating anti oxidant rich foods reduces the load of oxidized cholesterol. All this helps this 'bad' cholesterol emulsion particle LDL become beneficial again.

Following is a nutrition oriented theory, based on past and ongoing research, about the basic causes of heart & blood vessel diseases: [the '[why](#)' page has more on the basics]

1. **Most blood vessel problems start with inflammation [latin: "-itis"] and repair mechanisms**, such as artery wall thickening (hardening, atherosclerosis, sclerosis --slow processes) and blood clotting, a fast process, from hours to many days.
2. **Repair mechanisms activate** when arteries are weakened by **infection**, by **free radical attack** (due to low antioxidant intake, smoking, or by your immune system) and by **life-long or periodic low vitamin C**. However, **MOST IMPORTANTLY**, it is **corrosion attack by homocysteine** on the structural proteins of the artery wall due to refined diets low in many nutrients. **SOLUTION:** a 'high vitamin B' multivitamin with 1 mg copper and some extra vitamin C. In very high homocysteine, a few grams of betaine is useful. Homocysteine damage is called *thiolation* which is incredibly similar but overlapping damage to what is called *glycation* damage found in diabetes from excess blood sugar. *Thiolation* damage starts at or before birth, *glycation* damage rarely does and may be more repairable.
3. **High vitamin C lowers infection and inflammation** (viral & bacterial) and, as said above, maintains strong vessel walls not needing repair. **Vitamin C helps make the mortar** of the structural cement (connective tissue or ground substance) between cells, that breaks down in scurvy, a condition with internal bleeding and tissue degradation. This connective tissue is the elastic and collagen fibre and water filled mesh 'cartilage' that regulates nutrient access and that supports and positions artery muscle and lining cells. **Vitamin C is also the recycler** of vitamin E which shields cells, fats, cholesterol and LDL from oxidation and it's **a relaxer of arteries**.
4. **Long-term or periodically low vitamin C** weakens this connective tissue (made of collagen, elastin and 'cartilage proteo-glycans') which then allows blood to enter the artery walls, thickening and hardening them with repair and clotting materials, with calcium and with cholesterol crystals. Muscle cells then multiply inside the connective tissue to strengthen the wall. Such thickened artery walls increase the risk for stroke and heart disease --[NEJM; Jan. 7 99](#). Chondroitin (4-sulfate)

cartilage supplements have been shown to similarly benefit heart-health (Morrison / Schjeide, 1985).

5. **High Lp(a)** (a repair protein working like "radiator-stop-leak", uniquely developed in non vitamin C producing primates, & piggybacked to LDL) and high (clotting) fibrinogen are risk factors, as are most clinical inflammation and repair indicators (more damage and inflammation: more repair, more clotting (ex: [Circ; 00-9-5](#): 60% more risk in highest 1/3rd of Lp(a)-).

6. **Vitamin C & niacin (B3)** reduce inflammation (C-Reactive Protein - where B6 may also be helpful- [Circ; '01-5-12](#) & [Circ: March 2002](#): inflammation, a great scientific summary). "C and B3" also lower the production or need for repair Lp(a) and alcohol lowered Lp(a) in some studies --[BMJ; 98-5-30](#)

7. **Oxidized fats & oxidized cholesterol (only)** are toxic to cells and degrade LDL, generating immune and repair response & adherence of LDL to connective tissue components. This is avoided by a good diet and by the taking of supplemental antioxidants (carotenoids, C, the vitamin E family, selenium, CoQ10, others).

8. **Amino acids lysine and proline** possibly dissolve Lp(a) based repair clots in arteries (best sources: wheat germ, oats or yoghurt, and eggs respectively). **Arginine** makes artery relaxant and blood fluidity factor nitric oxide (same sources + meats).

9. **Anti-inflammatory aspirin (very low-dose)** and all omega-3 oils (fish, canola, flax) work like vitamin C to decrease the level of vessel repair mechanisms. They and vitamin E also have anticlot (thrombosis) and blood fluidity roles (Vitamin E reduced circulation related leg amputations by 90% --in a study by Dr. Knut Haeger, -Vas. Dis. 12-68:199-213). Omega-3 oils decrease sudden cardio-death caused by irregular heart beat, as do potassium and magnesium foods.

10. **Most harmful effects described above** as well as high-insulin(-[amyloid](#)) and high-glucose caused vessel damage in adult diabetes [high glucose slows vitamin C use by cells] are prevented or improved by appropriate nutrients and supplements. From a historical series of studies by Dr.

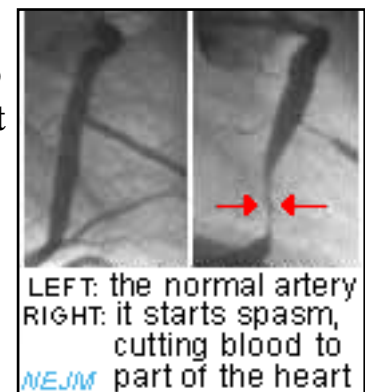
G.C. Willis: "Massive doses of vitamin C may be of therapeutic value in the treatment of atherosclerosis and the prevention of intimal haemorrhage and of thrombosis." (*CanMAJ*; 7-'53, 12-'54 & 4-'55 - copies upon request). Benefits of C in heart disease and deaths were found 40 years later in the massive NHANES study on typical U.S. adults ([Epidem; May '92](#)).



Artery disease is usually, but not always, a very slow process (loss of function, angina, congestive heart disease, claudication, impotence).

A heart attack and most strokes start with sudden vessel obstructions by a piece of plaque or blood clot. In clotting and plaque break-away, tiny flat platelets become round balls of "velcro" that inter-lock using sticky fibrinogen "rope". Then the vessel constricts!

You want your artery muscles as relaxed, responsive and flexible as possible, permitting blood flow. You also want the blood itself as liquid as possible and to *only* clot in the case of a real injury or cut. Here are some examples about reductions in deaths in high risk groups on a low-dose of the anti-clot drug *Coumadin/Warfarin*: [Circ; July 11 2000](#) and [ArchIMed; Sept 11 2000](#).



Omega 3 (fish, flax & canola oil) made hormones, *ultra low dose aspirin*, vitamins E, C and [niacin](#) decrease the tendency to make the clots that lead to sudden (heart, leg, lung & brain) obstructions, before, during and after heart attacks.

In a pending heart attack, and while waiting for an ambulance, I would first *chew* some aspirin in water, and then take some vitamin C, E, flax oil and niacin (all of these are anti-clot and blood flow promoting).

I would also consider some magnesium *if* I could be low. *Preventive* heart arrhythmia regulating plant (maybe fish) omega-3, potassium foods and magnesium supplements (and after heart attack intravenous Epsom salt) appear safe in most people.

You would want to study if these data might apply to yourself -but these are life threatening situations where emergency medicine is your main recourse. Hopefully the information in this prevention aimed website helps you lower

Causes and Solutions to Heart Problems

your chances of needing such care. [Jan. 1st, 2008](#)

Miscellaneous Comments

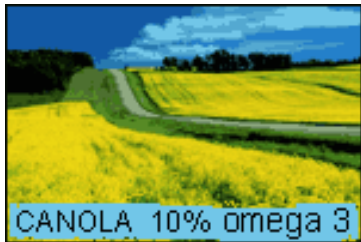
[[Home](#)] [[Simple](#)] [[Français](#)] [[Good Food](#)] [[Bad Food](#)] [[Vitamins +](#)] [[Books & Links](#)] [[Email](#)]
 [[Diabetes & Weight](#)] [[Where](#)] [[Cholesterol](#)] [[Why](#)] [[More on Causes](#)] [[31 Tips & Info](#)] [[Index](#)]

31 OF THE MOST IMPORTANT FACTS, TIPS & TIDBITS



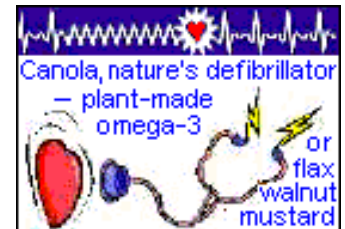
1. **About omega-3's:** "...relatively simple dietary changes achieved **greater reductions in risk of all-cause and coronary heart disease mortality .. than any of the cholesterol-lowering studies to date.** This is emphasized by the finding that *the unprecedented reduction ... was not associated with differences in total cholesterol..*" This is from a landmark [editorial](#) in *Circulation* about the 70% (!) reduction in deaths in those given 2 table-spoons of canola oil per day, most as a non-hydrogenated margarine given to the family. One measly tea-spoon of flax (linseed) oil has as much omega-3 (alpha-linolenic). Flax, a unique nutritional

power seed.

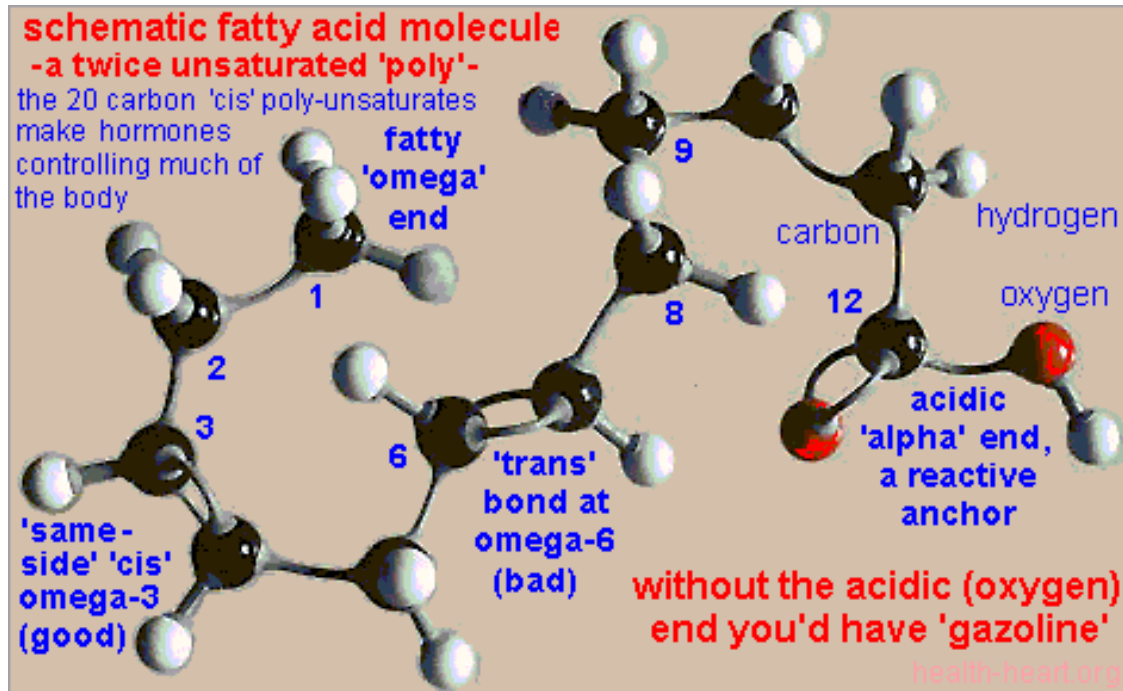


More about this *Lyon Diet Heart Study* and the oil that 'prevents' 75% (!) of heart attacks is in [Lancet 1994: 1454-9](#), [AJCN; 1995: 1360S-6](#) and [Circ; 1999: 779-85](#). Read the full data [it's a little tough] and you'll agree that this regimen is best described as "**The Canola Oil Happy French Cuisine**". [Canola](#) (rapeseed) is cheap. Cold pressed low-refined canola tastes better than English-walnut oil, another rare

source of omega-3. Canola may well lower the risk for [stroke](#), and there was also much less [cancer](#) in the Lyon canola group. More [recent evidence](#): **75% fewer heart attacks** in tropical diet low-fish intake Costa Rica: "*important protection against cardiovascular disease*" at the top intake of plant-based omega-3.



Just a few grams of omega-3 a day prevents irregular heart beat [arrhythmia] and decreases inflammation and promotes blood flow and helps keep a [by-pass](#) open and [protects you after a heart attack](#). Omega-3 from fish oil safely lowers the need for pain killers from *Aspirin* to *Celebrex*, and they slash 'triglycerides' (high blood fats). **Imagine:** 2 grams/day of fish oil after heart attack: 20% fewer deaths and 45% fewer 'sudden' deaths (GISSI trial). Omega-3 is the rediscovered half of what used to be called vitamin F -with the F from Fat. It takes omega-3 to balance the other half of vitamin F, the omnipresent omega-6 from soy, corn, sun-, safflower and cottonseed, *Linoleic Acid* (LA). *Polyunsaturate* has become synonymous with omega-6 only, which now appears to be part of a health disaster in [heart disease, diabetes and cancer](#), especially [breast cancer](#), excessive blood clotting and immune system problems including asthma. Making things worse since 1911, hydrogenation *trans*-forms unsaturates and messes with their vitamin or structural roles and raises bad-boy Lp(a). It preferentially zaps the most precious oil of all, omega-3. Virgin olive is a healthy oil but a poor source of omega-3.



Saturated fat, 40% of grey matter brain-fat, gives anchor and structure. **Mono unsaturate** (olive, canola) has molecules with 1 rigid 60° bend, 2x unsaturate linoleic (corn, soy) has 2, alpha-linolenic (flax, canola) 3, and EPA and DHA (fish) have 5 and 6 such bends. The 3, 6 or 9 with the

letter omega is the location of the first bend from the fatty end. **Factory partial hydrogenation** straightens these "functional-bends", leaving an oil unsaturated but with toxic 'trans' kinks. All fats are mixes of various fatty acids from 4 to 22 carbons long. Health depends on the length and the number and place of the 'cis' bends.

Fats: carbon chains with a fat end on one side, an acid end on the other

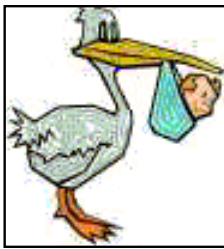
10 to 12 carbons (short): saturates found in coconut and palm-kernel oils (50%), in breast milk fat (10%) and in butter fat (5%). Not made in people except for baby. Anti-virus, anti-bacterial and energy roles; easy to digest.

16 carbon saturate: palmitic acid, made in our bodies (with the aid of insulin) when we eat excess sugar or starch [as do cows, pigs, poultry, etc.]. We can stretch this 16 to an 18 carbon saturate and make *mono* [not *poly*] unsaturates out of either, like the ones dominating in olive, canola, and in "peanut, pork 'n poultry".

18 carbon polys: the "essential/must-eat" polys: omega-6 **linoleic** (always excessive) and omega-3 **alpha-linolenic** (rare and beneficial; good mixes in canola & flax).

20 carbon polys: the omega-3 [EPA] and omega-6 [AA] unsaturates we use to make (cell-wall generated) **regulating-hormones** (clotting, unclotting, pain, cramping, inflammation, anti-inflammation, etc.). The 3's prevent irregular heart beat (arrhythmia) and they must balance the 6's. Used for nerve and cell-wall function (yes, walls function). Fish or self-made from the 18 carbon omega-3 and 6.

22 carbon poly: DHA, the very delicate omega-3 polyunsaturate found in fish. This is the 8%-of-the-brain-fatty acid we use for thinking. It is effectively the keyboard of the eyes, brain and nerve cells. From fatty fish and *not* self-made from plant omega-3.



Adults, but not **babies**, slowly change the omega-3 from seeds or leaf veggies into the omega-3's found in fish. Those are the ones that are found in our eyes, nerves and brain and that are key for hormonal and **cardio-vascular** balance [and for **full-term births**]. Unlike human and horse milk, cow milk and most vegetable oil based baby-formula don't have the omega-3s needed for brain development between the last months before birth to age 2.



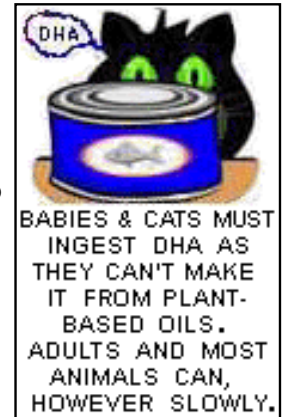
One of these fish oils -DHA- does much of the work *after* a signal hits the brain/nerve cell while the other -EPA- is present in *very* small amounts to control the beginning and end of this work; it controls a thought, motion, depression or mood swing from start to finish. In fact, the over-*activity* of certain brain-fats due to *insufficiency* of EPA [~1.8g/d?], may well underlie **schizophrenia** and some types of **depression** [**Fincastle**], **Huntington's** and **post-partum** (birth) depression.

Depression also predicts **heart disease**. Or, thinking nutritional deficiency (-



made worse by masses of omega-6-), a lack of omega-3 [EPA] may be a common linking cause in **schizophrenia**, (bipolar)/-depression, **M.S.**, **cancers**, **adult diabetes**, **bone and heart disease** [**Horrobin et al**]. Think: there's the DHA of a 2 kg (5 lb) salmon in your head -- and appropriately enough, the molecule is shaped like a ? mark or fish-hook -in fact, it wiggles like a worm on a hook, millions of times a second, around that basic shape, making it arguably the brain's most versatile molecule. This fat, DHA, is the keyboard of your eyes, the

processor-chip of the computer in your brain and may help prevent **Alzheimer's Disease!**

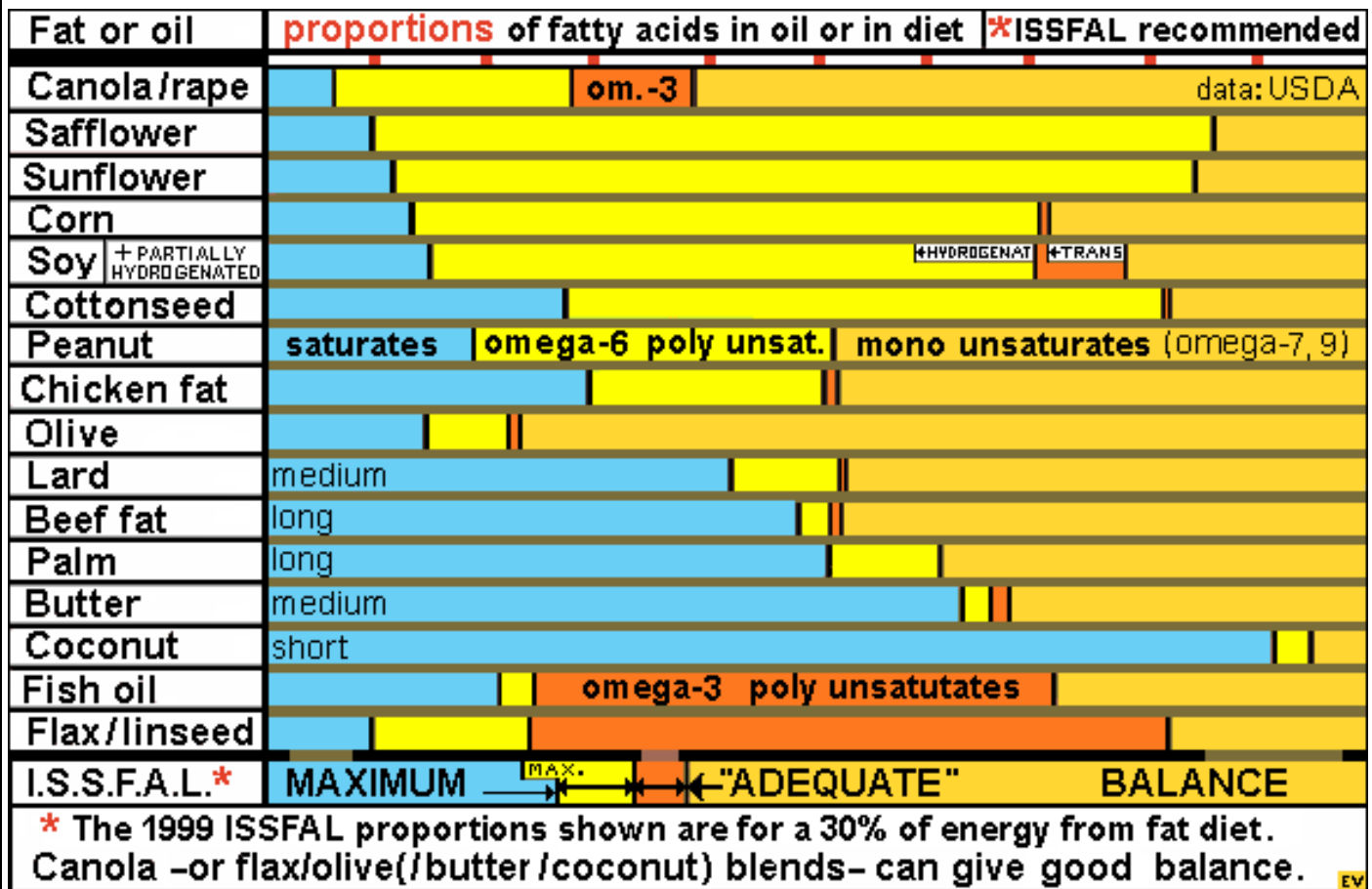


Another 1999 study found a **60% reduction in sudden heart deaths** in the high omega-3 oil group - when associated with high vitamin E or low *trans* fat intakes: **Am J Cl Nutr; May 99**. Fish oil is high in omega-3 and dramatically lowers blood triglycerides in people with *very* high starting levels: **NEJM; '85:1210-6**

An overview by Dr. Simopoulos of benefits of omega-3 and dangers of excessive cholesterol lowering omega-6 *linoleic* (again: soy, corn, sunflower, cottonseed and safflower) is here: **Am J Cl Nutr; Sept '99**. She has a practical book, the **Omega Diet**. Simply put: Balance Canola, Olive and Flax --and easy on the rest. The Heavy Science is **herehere** and here's a great **review** about omega-3 in heart disease. Some fish **plus** plant based omega-3 **halves heart attack risk**.

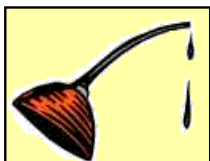
ADULT ADEQUATE INTAKE OF FATS – per 2000 kcal diet		g/day average	Tablespoon (T) = 1/2 oz, 14 g, 120 kcal teaspoon (t) = 4.5 g = 1/3rd T
Linoleic [omega-6] [most Western diets have 2-4x the Upper Limit]	adequate maximum	4.5 g 6.7 g	Maximum 2t corn, 2t sunflower, 2t safflower, 1T soy, 2T canola, 2T peanut, 3T flax, 5T olive
alpha-Linolenic [omega-3 plant oil]	adequate	2.2 g	1t flax, 2T canola [2T soy -but too high in linoleic] U.S. intake 1/2 of adequate
EPA+ DHA [omega-3 fish oils]	adequate min. 0.2g of each	0.7 g	1/40th oz, 1 pill, 1/4t cod-liver oil or some fatty fish. Common intake 1/4 of adequate
TRANS [halt manufacture] [0 trans "per serving" can be 10% trans, "all vegetable" shortening 25%]	maximum	2 g	This is 1/5th or less the actual U.S. intake from fries, donuts, margarine, shortening, baked goods– but European fries are full of these hydrogenated fats also
SATURATED [solid – some "conditionally" essential]	maximum	18 g	5t coconut, 3T butter; meats and self-made from sugar and starch
MONO [omega 7 & 9 unsaturates]		balance	Balance, from olive, canola, peanut, meats

International Society for the Study of Fatty Acids and Lipids; 31 member working group consensus amounts, April 1999, at NIH, Bethesda MD USA
N.B. brackets & right column by E. Vos

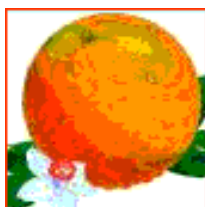


The table above by the 'cream' of the world's fat experts is *the* standard by which fats, oils, mayos, margarines and labels must be measured. If the label is bad, don't buy the fat. There was some [2004 tweaking](#) where marginally less alpha-linolenic is called '*healthy*'. *Minimum 0.5g EPA+DHA* is suggested for heart-health. Since 2002, the American Heart Association agrees. ISSFAL is dead against *trans*-fats,

made by industry from the healthiest of fatty acids.



Time for an oil-change... to unhydrogenated canola, flax (lin)seed & fatty fish. Unhydrogenated soybean might be o.k. but it's also high in omega-6 linoleic, already an excess in most Western diets (an average person already stores over 1 kg -3 lb; see also points 29 and 30 below). Here's an omega-3 reference for the little heart disease [and depression] in Japan where the oils are fish, canola and soy: [AJCN; Jan. 2000](#), and [here](#)'s the history of omega-3 by pioneer Holman. **You may want to add** some vitamin E to your oils and refrigerated them: they (like cholesterol) become harmful when damaged by processing, heat or light. While motor oils are designed for engine health, most "vegetable" oils are engineered for lack of flavor, clear appearance and shelf life. Short-chain saturates store well and are safest for frying.



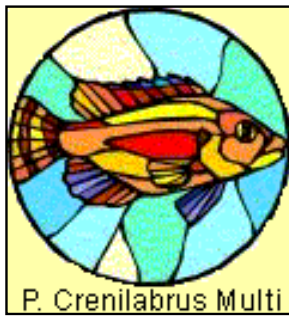
2. **Vitamin C's most important study** was in the Canadian Medical Association Journal of Sept. 23 1972. During 102 days (3.4 months) in winter, 407 about 25 year old Canadians took 1 g/day + 3 g/day during the first 3 days of any illness. An identical group on taste and look-alike dummy pills had 40% more people seeking medical help (56 vs. 40), 58% more doctors visits [94 vs. 60] and a "similar" increased prescription drug use. There was a 99.9% probable reduction in days of disability. [Here's](#) the follow-up study also proving benefit; Here's [Wikipedia](#). For long-term benefits: [Epidem; May '92](#).

In science, if no effect is found, there was none, the study was badly designed, or statistically unlucky. Significant results from proper studies stand until proven wrong by other studies.

According to these non refuted results, 1 g per day of vitamin C with an increase during illness would change the face of everyday medical practice.

$C_6O_6H_8$ vitamin-C
 $C_6O_6H_6$ de-hydro-C
 vitamin-C gives 2 hydrogens to oxidant

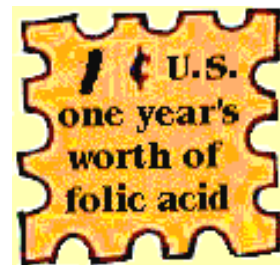
Comment. 200 mg, with some effort and cost obtainable from fruits and veggies, saturates blood and cells in totally healthy people. Illness and infection makes the need for vitamin C skyrocket. It is here and in long-term health that benefits of high amounts are likely. The biochemistry is so complex -[ProcNutrSoc; '99: 469-76](#)- that only simple indicators like doctors visits, drug use and days of disability provide practical answers.



3. **'The current evidence suggests** that people who take such supplements and their children are healthier.' This quote is from an editorial '[Eat Right and Take a Multivitamin](#)' in the New England Journal of Medicine. [Dr. G. Oakley from the Centers for Disease Control and Prevention talking about "standard" multivitamins with 400 mcg folic acid.] Here's the effect in [heart disease prevention](#).

4. **The same major study** found a **75% reduction in colon cancer risk** (one of the 3 biggies) after 15 years of multivitamin use. Here's a study about long-term multivitamin use and less [cervical cancer](#). Just like it takes decades to cause cancer, it may take decades of supplement use to prevent it. Here is one folic acid based theory how: [J of Nutr; Feb 2000](#) [also: point 11, below]. Folic acid (folate, folacin or B9) is one of the most dangerous and common long-term vitamin deficiency around; liver, beans, green veggies, multi-vitamins. *Anything* you do to foods specifically destroys folic acid, and B6.

5. **Few have a financial interest** in supplements but you, your family and your insurer -but supplements are taxed and you won't get a credit on your premium. **A life-time supply of folic acid** (a cancer, Alzheimer's disease, birth defect & artery damaging homocysteine risk reducing vitamin) until recently cost \$10. The average 0.2 mg/day added to N. American grain products **costs less than 1¢ per year**. The *minimum* needed dose is 0.4 mg (400 mcg), 1/10th the weight of a tiny flax seed. Being low in folic acid is truly dangerous since it prevents many of life's diseases!



If Americans would take a [good quality](#) multi, like *Twinlab's Daily One Caps*, they would save about \$100/yr in hospital costs regarding babies and heart disease alone (estimate [WJM](#); May '97), not to mention other diseases or suffering. New: a [Down's syndrome](#) link.



6. **Multi-level pyramid sales**, patented or *special* formulations are rarely cost effective, think: [Coral Calcium](#). Another example is *Ester-C*, chemically not an ester but a costly degraded mix of oxidized vitamin C. From their website: *All of the .. studies are considered to be pilot or preliminary, and although the results suggest a positive result, further studies are necessary [but not for sales] to verify these conclusions.*" Eleven years after the patent the largest study for 24 hours in 54 people. Six more years later, in 2006, still only one 'preliminary study' suggesting their process of 'natural oxidation' of vitamin C helps Ester-C work differently [[sic](#)]. Feel like wasting time, here's their [patent](#). Such practices based on deceptive research give the vitamin industry a bad name, yet their very friendly watch dog, the *Council for Responsible [sic] Nutrition*, refuses to bite this industry-wide scam. This watch dog knows who pays the dog food, collecting 0.1% of member company's *Ester-C* sales. So much for being 'dedicated to enhancing the health of the U.S. population' -



however, [they](#) do help keep vitamins legal (their CEO is a lawyer). How'bout also



patenting pre-oxidized vitamin E? Well no, they now flog [Ester-'E'](#) just because it would be oxidation protected in 'unpublished animal studies'. Promoting [Ester-C](#) as 'fatty acid ester free' is like hyping sugar for being fat-free. Shame on that industry that [price-fixes](#),

that makes good cheap *multi*'s hard to find on store shelves and refuses to self-police and weed out supplement scams.



7. [Half of American men](#) over age 40 are affected by degrees of impotence due to local artery dysfunction,

smokers 2x as often as nonsmokers. An early warning for a men's *entire* heart and

vascular system. Smoking and not taking B vitamins raises *heart disease* risk [12 fold](#); not taking C [8 fold!](#) Soon: nicotine gum, condoms and vitamins at the same counter.



8. [In women](#), the no-alcohol + low-folic acid group had [4.5x the heart disease deaths](#) of the [highest alcohol + highest-folic acid](#) group. Another study found an [almost doubled cardio-risk](#) in women with the lowest intake of nuts, and increasing without a [multi or vitamin E](#) supplement.



9. [Imagine ...](#) that just maybe a friend's colon cancer or Alzheimer's disease was caused by low folic acid, breast or prostate cancer by low selenium or fatal irregular heart beat by low magnesium, potassium or omega-3. Imagine most heart disease is caused by micronutrient deficiencies. Imagine how cheap and easy it would have been to avoid ... and how hard to undo. The list gets longer while we wait for "conclusive" evidence.

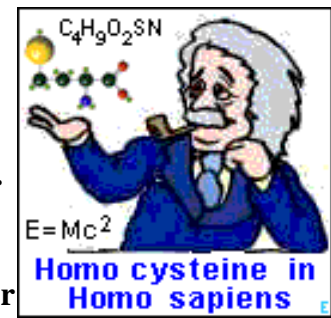
[Low vitamins D, C, B1, B3 or iodine](#) respectively cause rickets, scurvy, beriberi, pellagra and goiter (to the disbelief of the medical world at the time). The next 2 sections tell how long-term low B6, B12 and folic acid (general malnutrition or processed diets) promote heart disease, cancer, [brain \(cognitive\) decline](#) and Alzheimer's. Here's a teaser: 400 versus 100 mcg folic acid intake, and 19 years later, [20% less cardiovascular disease and stroke!](#)



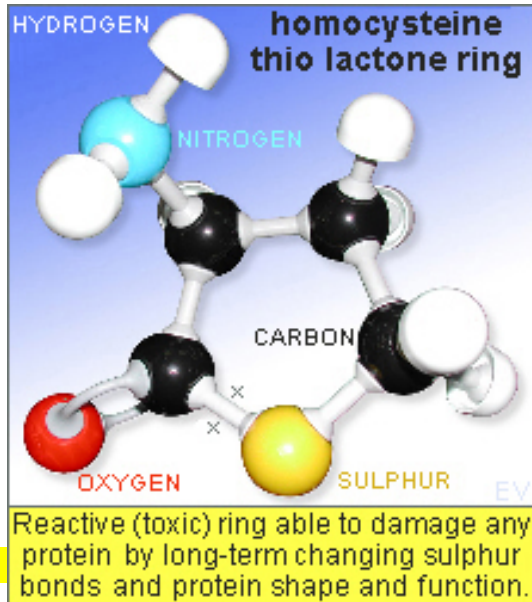
10. [More-studies-are-needed](#). While there will never be certainty, there *is* sufficient data to send the optimum-nutrition case to the jury with instructions that, in life, a hung jury is not an option. This website is one such analysis. Here's one by [Nutrition Science News](#).

Here, inPDF, is another but more technical analysis by [AltMedRev; '96: 132](#). Any doctor not having read the latter *and* the Feb. 16 '99 issue of *Circulation* about omega-3's *and* [McCully's homocysteine book](#) has dangerous information deficiencies.

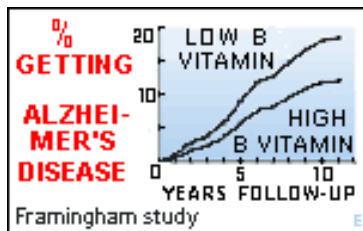
McCully, again a Harvard professor, established the link, via the blood chemical homocysteine, between many diseases and poor nutrition. This link is the Mc^2 [think McC-ully] of low micro-nutrient intake and disease: higher than minimal homocysteine *proves* malnutrition (in each of us and in groups). This discovery, for which he should be on the short-list for a *Nobel Prize*, supports Adelle Davis' views of the early research, like eating B-vitamin and methyl group supplying eggs and liver against heart disease (-research like the pioneering work of Lester Morrison and Charles "insulin" Best before that; also 11 and 24, below).



11. Dropping homocysteine is cheap and easy using a *multi* with high amounts of B vitamins [this author in [Arch Int Med](#)]. B vitamins [reverse artery plaque](#) [3rd figure below, and [here](#)] and help [blood flow and balloon \(angioplasty\) operation success](#). Without high intakes of B vitamins, this 'natural slow-poison' we make from protein hangs around longer than needed. This damages arteries, liver, brain and DNA. Let me propose: **atheromas, the fatty swellings in arteries (and many cancers and Alzheimer's disease), are proportional to the time spent at homocysteine levels over 6, the level of most 10 year olds.** 30 years at level '15' is ill-health

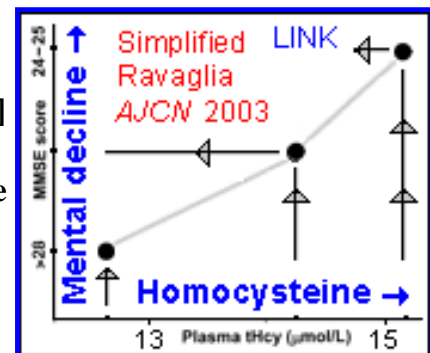


and decline; that time spent at '6' is long-term health. Science: this nasty little molecule opens at X when that carbon marries the 2nd nitrogen from lysine, disabling this amino acid needed to make collagen and elastin, the actual artery structural materials. The opening of the ring then leaves the sulphur atom on its own, ready to do more damage.



The effects of the 5 main agents [[folic acid \(B9\)](#), [B6](#), [B12](#), [B2](#) & [betaine \(B14\)**](#)] are *cumulative*, together probably lowering by 1/2 the risk of heart, blood vessel

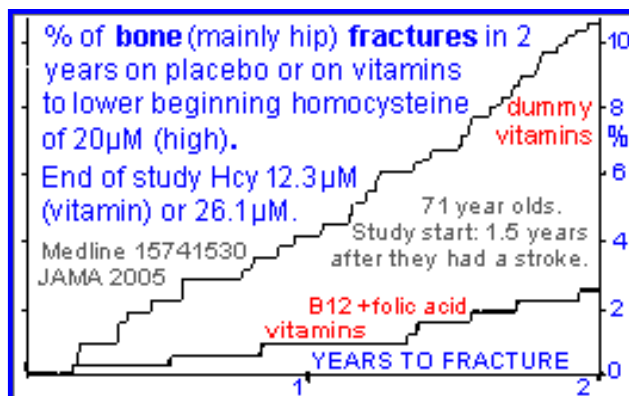
and *Alzheimer's* disease (also: [AJCN](#)). The left graph was (over) simplified from [NEJM 2002-2-14](#), a homocysteine study in 1100 elderly and the % getting dementia and Alzheimer's many years later [[vitamin B-3](#) and [fish oil omega-3](#) may also help]. High homocysteine is and proves low B vitamin status: *NEJM*: "The simple addition to a normal diet of large doses of folacin, vitamin B12, or betaine will substantially reduce plasma homocysteine in most people." [magnesium, other B vitamins also play roles].



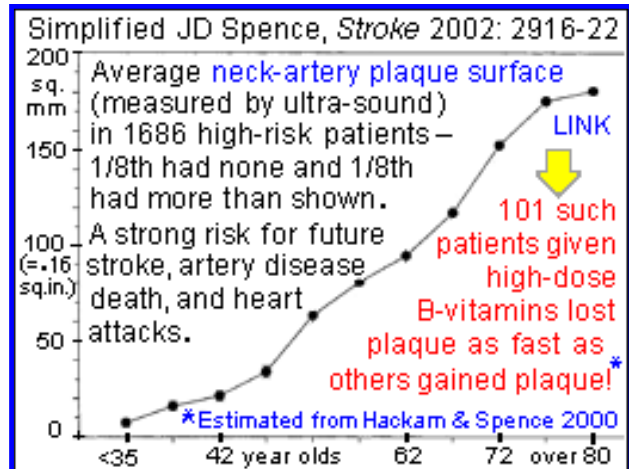
Even if in real life only half these benefits materialize this would still be a massive reduction in suffering. Other benefits of these nutrients (directly and through homocysteine) are in birth defects, pregnancy complications, (significant) cancer prevention and artery relaxation. These effects are the best rationale for taking a high-dose multi vitamin. The book [Methyl Magic](#) is a fine reference. High homocysteine is *the* best indicator of malnutrition and vitamin deficiency (the shameful rule in the home-bound elderly).

Happy homocysteine: below 7 in mid-age and below 9 when elderly; the lower the better with 6 $\mu\text{mol/L}$ a "target". In the Framingham Study, average was 11.5 at age 60-65 to 22.5 above age 90 but in all 7 age categories were people with ideal values of below 6!

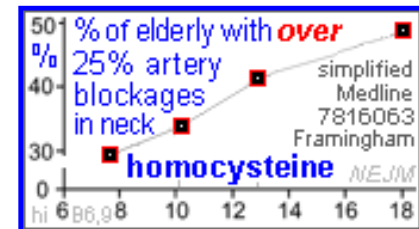
Dimes per day for the *multi* and zero risk! Add vitamins C and E, fiber, minerals (think: magnesium), omega-3 oils and eat low processed foods** and you'll reduce your statistical chances of early heart and mental ill-health to a fairly low level, regardless of your genetics. Smoking, possibly unfiltered coffee, mega-niacin and fibrate drugs increase this blood toxin. So do stress or anger!



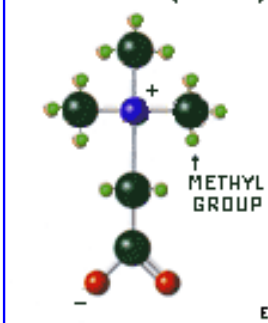
hypertension." Could low omega-3, mineral, antioxidant and homocysteine lowering nutrients cause that difference --or does your MD, heart specialist or lipidologist [yes, a "blood-fat-specialist"] have a *better* theory? Since half of you reading this website have or will have heart and blood vessel diseases, this question is worth asking.



In these 101 people, those with homocysteine over 14 $\mu\text{mol/L}$ had plaque growth of 21 mm^2 per year but a loss of 5 mm^2 per year on vitamins. Those with lower homocysteine grew only 13 mm^2 of plaque per year and then lost 2 mm^2 per year on B vitamins!



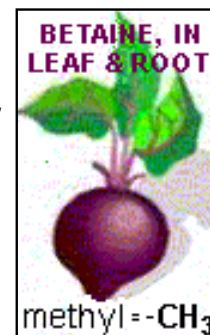
Homocysteine lowering is especially important for the about *one third* of us with a genetic tendency to higher levels. For some reason, most people with heart disease have "desirable" cholesterol levels. [McCully](#): "[In 2/3rds of autopsies with severe atherosclerosis] ... the disease developed *without* evidence of elevated ... cholesterol, diabetes, or

BETAINE (TMG)

****Betaine** [be-tai-ine, bee-tain, TMG or B14] and choline are about 0.5% and 0.25% respectively of wheat bran and germ - leaving refined flour with only about 0.06% (*Cereal Chem*; 1-'67: 48-60). New 2003 figures for [wheat germ and bran](#) are even higher. Both nutrients have similar vitamin-like roles that are crucial for artery health (this author in [AJCN](#)). Choline (eggs, liver, soy, wheat bran/germ, meat, fish, and self-made from lecithin) turns into betaine (3 methyl groups stuck onto the amino acid glycine; also found in beets, spinach, wheat bran/germ, shrimp & beer) that, after donating a methyl group (like the famous and expensive SAME) turns into DMG, another donor of methyl groups:

These nutrients produce "methyls" that drop homocysteine and protect blood, arteries, brain, liver and DNA. Methyl groups do hundreds of good things (excepting possibly in mania and some *late-stage* cancer). **Sticking methyl onto the sulfur of homocysteine generates the essential amino acid methionine, taming the beast.**

Methionine, lecithin, choline and betaine are "lipotropes" that help us deal with fats [like fatty-liver caused by [alcohol](#), overweight and type 2 diabetes]. Morrison first "improved" cholesterol "types" with betaine in patients and 50 years later we have [trials](#) of betaine improving homocysteine in normal people. Interestingly, unlike B6, B9 and B12, betaine also lowers homocysteine after a meal. **Cancer:** massive DNA damage and breakage with "low normal" folic acid intake [for scientists: RNA's uracil winds up in DNA and its removal causes [major DNA disruption](#), prevented by sufficient methylation; RNA's uracil + methyl = DNA's thymine].



Nutrient Nutrient info is unlikely to come from a cardiologist. For example, the ACC's expert panel on Heart Failure *only* mention of nutrients is: "Physicians should monitor [which is difficult] and correct any deficiencies in potassium and magnesium, since these may cause ... arrhythmias [irregular heart beat]".

The ACC Guide to Preventive Cardiology for Woman:

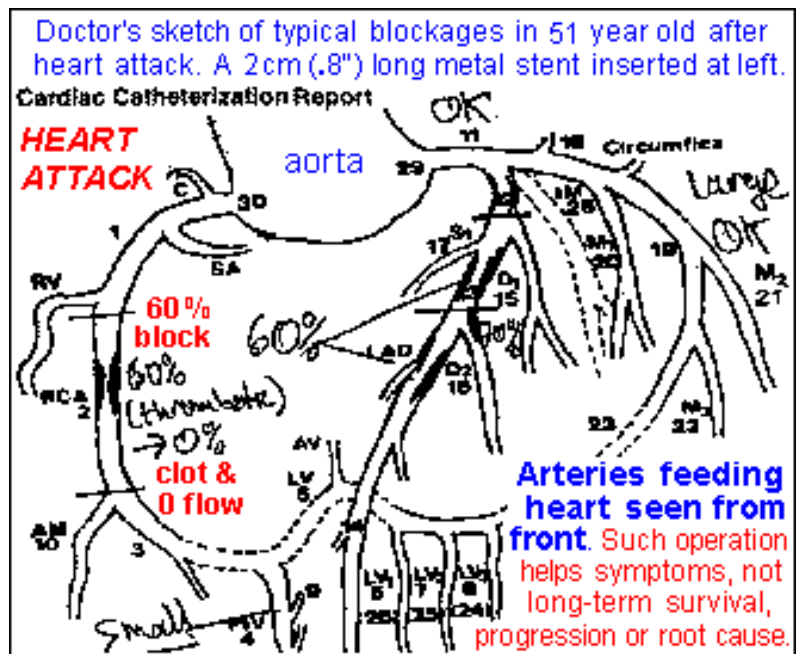
"Diets rich in antioxidant ...nutrients and folate are preferred [says who?] over supplements." (*JACC*; 5-1999: 1751-5). Why not do both since **folic acid (B9), and B12, are best absorbed from a multi-vitamin pill.** For example, [1 in 8 Americans](#) over age 60 is B12 deficient (yet able to absorb B12 from a pill) because of low or drug-reduced stomach acid. Doctors however like to *inject* people with B12. In a different "vein" (sorry), vitamin E from food plus a *multi* will not get you, as all cardiologists know, the about 200 IU's linked to a 40% lowered risk of future heart disease.



Some wise words about such "expert committees" or websites, including this one, as Dr. JRA Mitchell once said: "What passes for knowledge is often no more than well-organised ignorance." and "The alternative to scientific experiment is the expert committee. Unfortunately, just as one cannot be sure of the relationship between risk factors and disease, we cannot be sure of the relationship between the opinion of the committee and the truth: **the opinion of the committee will depend on who is selected for it.**"

12. In most heart attacks, plaque breaks, imitating a cut or a wound, and thus blood clots and the vessel contracts. Maintaining good intakes of magnesium, potassium and omega-3 oils will help save you by preventing the resulting irregular heart beat.

In other words, heart disease, clotting and strokes start when repair Lp(a), fibrinogen and/or homocysteine are high, HDL & CoQ10 are low, or when LDL and artery walls are damaged by homocysteine or oxidized cholesterol (old, burnt or heated fats). Plaque forms in damaged sites in vessel walls. Vitamins B3, B6, B12, folic acid and betaine and antioxidants E, C, selenium, CoQ10 & omega-3 oils prevent LDL or inflammatory damage--by keeping LDL "good", and the arteries healthy, thin and flexible.



13. **FIRST Assure Optimal Nutrition** underlies the medical principle of *first* not to cause harm. In other words, first insure that an illness cannot be cured or helped by nutrition. Nutritional medicine is also called naturopathic or orthomolecular medicine or psychiatry. The stupid idea that a "well balanced diet" gives optimum amounts of the nutrients *you* need is based on dogma, not on science. **While a 'balanced & varied' diet with lots of fruits, veggies & whole-grains is truly a superb idea (JNCI; 00-1-19),** no scientist can say that even such diet (and more importantly your *actual* diet) has *your* optimum amounts of selenium, magnesium, calcium, potassium, vanadium, silicon, molybdenum, chromium, vitamins C, E, etc.



People don't readily change eating patterns shaped by taste, family, habit, price, availability, restaurants, vending machines, corporate profit, religion and custom -- and 1/3rd of Americans get almost half of their calories from 'Energy-Dense, Nutrient-Poor' junk foods -AJCN; Oct. 2000. This being a **human and dietary advice reality** [the '**CELL**' study], taking a few supplements (a good multi, C, E, calcium / magnesium + vitamin D, and omega-3 in the diet) is one cheap and easy thing anyone can do about the known nutrients likely to be lacking.

14. **Selenium** is crucial in heart disease and [cancer prevention](#) --or put the other way, many heart conditions and cancers are, at least in part, selenium deficiency diseases. Selenium is found in US or Canadian wheat flour at 1 to 120 mcg/100g depending on where it was grown, making it either a good or a terrible source (you need about 200 mcg/day for long-term health).



Since 1984, ultra-low selenium and ultra-high heart disease Finland supplements its fertilizers with selenium. Rather than supplementing fertilizer and hoping you'll get optimal nutrients, your chances are much improved with a good vitamin-mineral supplement. Sure, it looks like a pill but it's a targeted food concentrate. [This study](#) in men found a 63% reduction in prostate cancer from 200 mcg selenium and it should work for breast and other cancers as well. Selenium is an [anti-inflammatory](#) in rheumatoid arthritis, it [likely improves longevity](#) and it may reduce [HIV / AIDS](#) [[book](#), [science](#)] and other virus diseases.



15. **Dog food** contains a vitamin and mineral supplement, even the canned-meat variety. This lack of added supplements explains the veterinary *dogma* that your dinner leftovers are bad for a dog! Animal science accepted years ago that [a supplement is an essential food group](#) for dogs, cats, zoo, farm & lab animals. Farm science also proved that supplements are vital to crop health because plants may not get all the nutrients they need from the soil. As your pet and crop get supplemental micro nutrients, what are the chances you get them from restaurant or supermarket foods?



16. **Food-pyramids** of the various food groups are made by portion size and some relative importance. However [the 1995 U.S. Dietary Guidelines and Pyramid do little to prevent disease](#) according to studies [1](#) and [2](#), with fresh insight by the [OttoBonis](#). These studies call for a change in the guidelines. A suggestion: promote whole and unprocessed foods, omega-3 oils and a *multi*, while refined rapidly absorbed carbs (now the base of the pyramid) would move into the 'use sparingly' category. Part of the very base of an improved pyramid would be fruits and vegetables that would share this base with a category for omega-3 oil and a micro-nutrient supplement. This was in fact the comment of one of U.S.'s top senior scientists at the May 2001 Linus Pauling Institute nutrition conference ... while a second top scientist commented that a *multi* is the most conservative thing one should consider for a hospitalized patient.

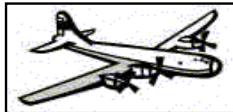
17a. **UNDER-dose of nutrients** affects most people. The most common ones are: calories, protein, iodine, iron, calcium, magnesium, potassium, zinc, selenium & vitamins A, B, C, D, E, omega-3 oils (fish - % varies, flax -57%, unhydrogenated regular canola -9%, unhydrogenated soy -7%, wheat germ -5% & unrefined walnut -5%) and last but not least: folic acid. **Anything you do to foods (freeze, can, boil, age) specifically lowers 2 homocysteine lowering vitamins: folic acid and B6.**



17b. **OVER-dose of nutrients**, apart from things like calories, omega-6, iron and copper are rare and usually benign. About *fluoride* however, the "do not swallow", [supervise-your-kids](#) and "use only a pea-sized amount" warnings on [Crest](#) toothpaste are ominous, and valid. [Fluoride](#) is nearly as toxic as arsenic. **Fluoride causes aging, dark skin**

blotches, white-spotted teeth, cancer, collagen and DNA damage, "unwanted" bone growth (in cartilage and in artery walls and as spurs on bones), and it may not even prevent tooth decay long term --ref's [1](#)

& 2. Applied to *growing* teeth, it forms fluor-apatite, $(CaF)Ca_4(PO_4)_3$, a hard mineral also found in bone-hard calcified arteries. Promoted as if it could be a nutrient by money and bad science, fluoride is the toxin that raised permanent "mottle" tooth damage in U.S. kids (fluorosis = *permanent white spots*) from about 6 to 30%: [CDC/JADA; Feb. 2002](#). Here is an important Canadian summary: directly applied to growing permanent teeth, there *might* be a small benefit in one (1) age-group (age 5 to 9 ?) but *ingested*-from toothpaste, water, drinks or very high tea intake (leaves)- there is risk to all (bone-fracture, cancer). P.S. The title of Dr. Leo Spira's 1953 book with the first 25 years of science is: *The Drama of Fluorine, Arch Enemy of Mankind*. Fluoride anyone?



17c. **PRESCRIBED** drugs in U.S. hospitals *daily* kill a jumbo-jet full of people (300) and cause 6000 adverse reactions defined as 'permanent disability, more hospitalization or causing death' ([JAMA; '98-4-15](#)). **This is 1 FDA approved drug-death and 20 very serious reactions every 5 minutes!**

Why worry about Anthrax as the medical drug toll surpasses that of the World Trade Center calamity every 10 days in the U.S. alone. In 2003, 1 in 4 Canadians was affected by medical mistakes. Yet, only *perceived* dangers (fear, terrorists, exams) most motivate people, not death by meds. **About sudden heart problems**: go to a hospital able to 'balloon' or 'by-pass the problem' and you'll have a 10 times greater chance of getting such intervention and a 14% greater chance of being dead 6 months later.



18. **ASPIRIN** daily kills about 46 Americans, as many as die from AIDS ([NEJM; June 17 '99](#)) *but* an ultra low dose (~1/4th of a high strength pill (125 mg) every 2nd day -but not if you take *ibuprofen* first) can be anti-clot + anti-inflammation heart healthy (for those at high-risk -see the [FDA](#)) and about 160 times more bang for your buck than cholesterol lowering statin drugs ([BMJ; Dec. 5 '98](#)). *Aspirin* however is linked to 200,000 U.S. hospitalisations for congestive heart failure ["NSAIDs should be used with caution in patients with a history of cardiovascular disease."], internal bleeding and it triggers asthma. "*Aspirin, like all other drugs, is a poison*" is the title of [this](#) editorial in *BMJ* that concludes that "...it may be more appropriate for some people to eat an apple rather than an aspirin a day." [here's the [Jan. 2002 update](#) and [discussion](#)]. Then there is *Tylenol* / *paracetamol* which like its parent, *phenacetin*, and *aspirin* to a lesser degree, may damage your kidneys and combined with alcohol is disaster for your liver --and it should therefore not be sold in bars, or used for hangovers. Two vital reality checks ...: aspirin and Tylenol.



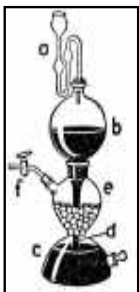
Aspirin, Tylenol and super expensive Celebrex/ Vioxx/ Mobicox work by reducing inflammation and/or pain from omega-6 oil-based molecules. The omega-3 family of oils, and most effectively fish oil, does the same but more gently, more safely and with more flavor (some would say: with too much flavor). These omega-3 effects are from "COX-regulation" in addition to the electro-chemical effects of the oil itself. These omega-3 benefits are evident in heart disease, in gut diseases like colitis and Crohn's, in arthritis, and health in general. *JAMA* sounded an alarm in 2001 about COX-2 inhibitors *Celebrex* & *Vioxx* regarding 50% more heart attacks. Three years later Vioxx® was pulled off the shelves, then *Bextra* and *Celebrex* is under a similar cloud: they reduce one of the really good prostaglandins (prostacyclin PGI-2) and prevent bones from healing.

Simply put: the *aspirins* prevent clotting but cause bleeding while the *vioxxes* may lower bleeding but promote clotting --and slow surgical, bone and wound healing.

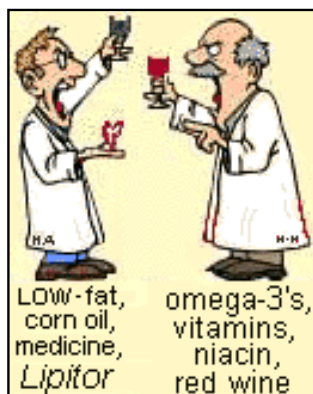
CycloOxygenases (proteins clinging to fat-based cell membranes) put the loop (**C**ycle) into and the **O**Xygen onto several already bent 20 carbon long fatty acids (removed from the host-membrane). This turns them into *prostaglandins*. Inhibitors prevent this, which can be good (for pain, inflammation and blood flow) or bad (for clotting, bleeding, kidney, blood-pressure, heart failure, etc.). Such anti-inflammatories and pain killers are little nuclear weapons against the fat-based machinery of your system, the effects of which will not be understood for decades [and now there are P-COX-1a, P-COX-1b, COX-3, and whoknows..].



All COX-1 and *some* COX-2 reside in a small sub-cell inside each cell and make the cell work properly. Other COX-2 sits around your DNA and tells it what to do and how to behave but *most* COX-2 is made in inflammation and infection, hopefully only when needed (otherwise it promotes cancer, arthritis and heart disease, and possibly Alzheimer's). Let me guess ... this is more than you wanted to know.



19. **Nutrient modification** by processing is little questioned: pick any food store shelf. This includes Europe where the foods are no better and where the nutrition labels are terrible. Since the addition at a yearly cost of 1¢ in the U.S. of folic acid to grain products and flour, many highly processed foods are now endorsed as sources of folic acid --[NEJM; May 13 '99](#). While *fortification* helps, about 90% of the world eats non supplemented refined grain and rice products --and nobody replaces the 80 - 100% of removed magnesium, zinc or vitamin E to name but a few lost nutrients. Low magnesium alone is linked to 11% of U.S. heart mortality ([Int. J. Epid; 1999](#)).



20. **The combined supplements** --E, C, the B's, minerals, CoQ10, flax or fish oil & niacin if desired & (maybe) ~1/4th of a high strength *aspirin* every other day (in [non-hypertensives](#))-- are cheaper and a heart-healthier package than any of the cholesterol lowering *statin* drugs. Over 50 billion \$ in sales and related costs ([JAMA; '00-4-12: \\$2.2-\\$5/day](#)) and drug companies still aren't allowed to say they will improve or prolong life for most users --unlike niacin ([JACC](#)).

Mega-niacin does take some medical guidance and for the first few days it *will* give a harmless but frightening hot-flush. It is the *only* drug suggested by the AHA to raise HDL and it's [1 of 3 to lower LDL](#) [including fibrates, drugs [increasing](#) deaths]. Best: plain niacin (not 'no-flush') and it may make your doctor feel better about law suits since you're doing something about 'your' cholesterol. Always take with a multi otherwise it raises homocysteine and, bonus: it lowers clotting Lp(a) and [fibrinogen](#).

changing LDL amount, not quality



notes: E.V. **BETTER TOGETHER!**

Single or together: little or no proof they extend life. Double your flu and infections with Vytorin® (PI)

21. **CHOLESTEROL PILLS**, statins, -Pravachol, Lipitor, Zocor, Mevacor, Lescol, Crestor- '..if diet and exercise alone are not enough..' make part of a lab report look 'better'. This makes families poorer and less concerned about food choices while doctors aren't yet getting blamed for prescribing them. They hardly raise HDL and slash the production of CoQ10 by the *same % as LDL*, forcing heart, in fact *all cells*, to work with *less energy* and *more 'free radical' damage*. Their limited effect is clearly not from cholesterol but from lowering inflammation (2nd ref.) and blood clotting, and by changing artery function, as do more cheaply C-RP by aspirin, some omega-3 oils and some vitamins (high-dose E).

Stanol-sterol margarines, policosanol, fibrates, gugulipid, dextrothyroxine, estrogen, ezetimibe [Zetia], Ezetrol, part of Vytorin -click for warning and torcetrapib all 'manage cholesterol' in various ways but **have never shown to save lives, just like Lipitor.**



Remember when "Milk Nurses" promoted formula to Third World mothers...

Canadian fine-print warns "**The effects of ... on cardiovascular morbidity [illness] or mortality [death] ... have not [!] been established.**" And: "Significant decreases in circulating ubiquinone [CoQ10] levels in patients treated with X or other statins have been observed [happens in all users, and this does] .. lead to impaired cardiac function [= heart failure, nerve death] ..". Also: ".. in some patients the beneficial effects of lowered... cholesterol may be partially blunted [canceled] by a [linked] increase in Lp(a) levels."

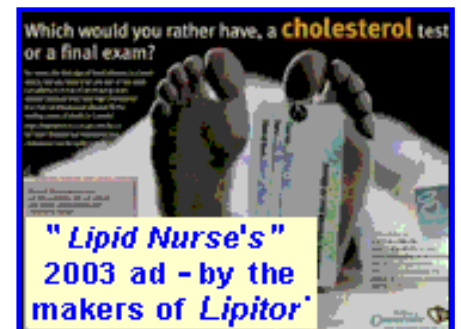


Canada's "Lipid Nurse Network", Pfizer's www.LipidNurse.ca ...**blood fat nurses?**

MedlinePlus list 100 statin side effects but not the most vital,

CoQ10 reduction. Simply put:

1. **Sometimes good:** inflammatory, clotting and nitric oxide effects -likely short-term (weeks or months near 'events' or 'interventions');
2. **No effect:** from changes to cholesterol [lipids];
3. **Always bad:** pain (joints, weakness), 'senior moments', inability to learn, less CoQ10, more Lp(a), serious birth defects, bleeding strokes and probably cancer.
4. **Scary ads** & faulty science [*Zocor*, *Vytorin* and the *Pfizer* feet in the morgue fear of death campaign called 'unethical' by the World Health Organization];
5. Don't prolong survival in most high-risk groups and not in women:



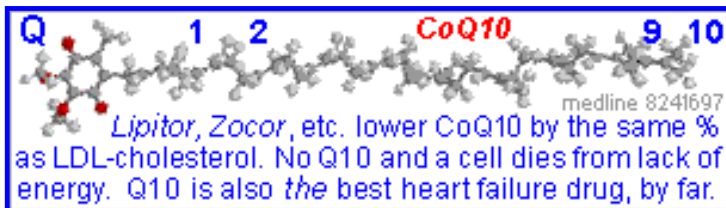
Which would you rather have, a **cholesterol test** or a final exam?
 "Lipid Nurse's" 2003 ad - by the makers of Lipitor



Massive benefits proclaims Oxford University about its 2002 **Zocor - Heart Protection Study**. 75% of heart attacks still happen and 300 on Zocor for 1 year to postpone one (1) death. Massive drug use, **few**



'men' saved. The next study claiming benefit in high-risk elderly, **Pravachol's PROSPER** had 28 fewer heart but **24 more cancer deaths and more 'new' cancers in each of 4 years in a group with 52 fewer smokers**. Next, zero **'anything'** was found in **Pravachol's ALLHAT** in high-risk North Americans: 1 death postponed per 1.1 million \$3 pills taken! Next was **Lipitor's ASCOT** also without mortality benefit (graph below). **From 10 years ago: cholesterol lowering by any means caused 150 more deaths per 100,000 patient-years of intervention. Cheers.** No statin benefit in "primary" prevention in 2003, click on the right picture: the University of British Columbia.



"Ask your doctor if 'Rx' is right for you" prompt the ads but vital information is hidden from you and your doctor. This paves the way for after-the-damage criminal investigations and **lawsuits**.

Statins, fibrates and high intakes of the common

cholesterol-lowering polyunsaturated omega-6 'vegetable' oils (like corn) are linked to more cancer, as is just plain low cholesterol. Canadian ads but not U.S. ads warn that statins lower CoQ10; *there's* your muscle and nerve pain, **and lack of energy**. **Fewer studies were done on women**

and elderly, groups where high LDL has no evident link to mortality [low HDL does have such link, but HDL is best raised by, for example, exercise, moderate alcohol use or mega-niacin with -or it will raise homocysteine- a multivitamin].

No mortality studies were done in people taking a good *multi*, whole foods and omega-3 oil.



Many B-vitamin (homocysteine) trials are now being done but some are in people where prevention is rather (too) late, some were destined for failure (VISP) and many are set-up to have statins share the credit. The latter paves the way for *combination therapy*: statins + **niacin** and/or aspirin and/or **fish oil** and/or multi-B-vitamins ... if statins alone are not enough ...



A TV ad exclaims: '**Lipitor** did it, the lower **numbers** you're looking for.' Then, a small banner: "**Lipitor has not been shown to prevent heart disease or heart attacks.**" Isn't that what people expect when taking the drug? Now, in 2005, **Lipitor** ads no longer mention heart disease, it simply 'treats' (bad) cholesterol, a concept created by the drug and food industry. Another TV couple: 'Oh, Jessie, I love you too! ...**Zocor**, Be There! Up to 87% of **Baycol*** users drop to 'target levels' but 'effects on disease and death have not been established.' Why not real wellness goals such as less illness, fewer doctors visits or more time with friends?

"**Targets**" for pain killers are clear. However for drugs dropping blood sugar, pressure or cholesterol, ask your doctor if *real* health benefits are actually proven.

Eight authors of the U.S. ATP III 2004 treatment guideline 'update' got money from average 10 drug companies; one, a NIH gov't employee, got **\$114,000 + 'stock options'** from the statin industry. The 9th author earns a living as NCEP Coordinator with the job to *'..increase the proportion [.. of Americans] who adhere to their cholesterol-lowering regimen.'* And, oeps, they forgot the largest statin study ever, J-

LIT. More in *BMJ* on study [conflicts of interest](#). Could the brilliant beauty of a drug (industry) blind a well meaning doctor? Is it fear of not following 'guidelines'? *)*Baycol (Lipobay)* was withdrawn for causing unexpected deaths: here's an [important comment](#) about all statins. Also, [StatinAlert.org](#) or [StoppedOurStatins](#).



How about Pravachol? Two analysis by the Journal Club [here](#) and [here](#); some high risk participant would have to be treated for over 200 years at a drug cost of \$200 000 to prevent one cardiac 'event'. The WOSCOPS study selected 6600 men out of 160 000 and treated half. After 5 years and 30% giving up on the drug total deaths were not quite statistically different. The CARE study found, in patients with prior heart attacks '.. no significant differences in overall mortality ..' [1.6 per 1000 years of drug use, a statistical fluke.] *NEJM*; 99-4-8:1115 about a 3rd study (LIPID): '[Pravachol] has no particular advantage over placebo [dummy-pill].' Finally the truly massive ALLHAT study found 'zip' in *any* health department!



Also more dead on nasty Lopid -fibrates kill people-

-EXCEL-
dummy pill
3 deaths
Mevacor
8 deaths
per group
11 months:
study killed

The *Mevacor (lovastatin) EXCEL* trial had with 89% probability 2.75x more deaths (97% cardio-vascular) after 2 million pills were swallowed (11% fewer heart attacks, 40% more cancer); then, dumping 97% of the placebo group, *Merck* continued but without the risk of the drug proving conclusively to be more fatal than their dummy pill! Then, after 3 times more *Mevacor* pills, the [AFCAPS / TexCAPS](#) trial ended with 3 more drug deaths (also 40% more cancer). Next, *Merck's* 1st *Zocor* study (4S) killed 3 women but saved men, yet with unexplained anomalies in the mortality curves after 18 months.



Scandal at Oxford: *Sir Peto* and *Dr. Collins* refuse to publish the *Heart Protection Study* mortality curves in men, women, diabetic or not. In 1992 both wanted '*total mortality*' trials, proposing this was relevant. They did the study and now hide the mortality curves. In 2004 *Dr. Collins* suggested they would release these data but did not. In April 2007, author *Dr. Baigent* said it would be 'inappropriate' to publish these data and author *Dr. Sleight*: 'It is not my decision, but it looks like that.' [not releasing data about deaths]. Study sponsor *Merck* is also mum about deaths but as always, women did not benefit. If you're a diabetic women with a 75% chance to die from blood vessel diseases, would you not like to know how many days of life you might statistically gain or lose taking *Zocor* for 5 years? That is not an 'inappropriate' question but a real one and even more so when balancing money for food or drugs.

Twenty percent of 1st time *Zocor* users were motivated by cholesterol fear instilled by a [football coach](#) (*Merck* annual report). Not to be out done *Pfizer* uses 4 sports heros and [a doctor never having practiced medicine](#).



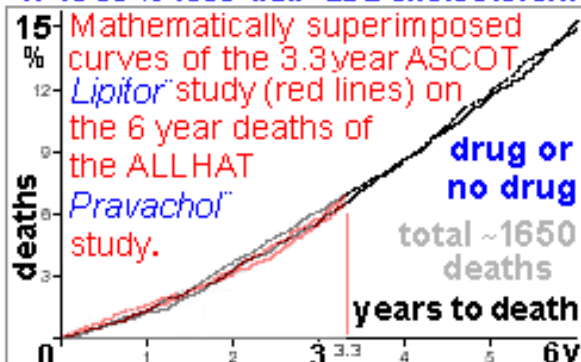
A shocking statement on the 2007 [ALLHAT](#) website: "...trials demonstrating a



reduction in coronary heart disease from cholesterol lowering have not [sic] demonstrated a net reduction in [all-cause] mortality." [MedlinePlus](#) about ALLHAT: "... people taking pravastatin were no less likely to die or develop heart disease than people receiving usual care." *Lipitor's* ASCOT 3.3 year mortality result is no different: 5168

people on statin, 5 million pills swallowed and the curves touch, and cancers, quality of life and muscle pain not reported. The 2006 SPARCL trial ended after 5 years with 5 fewer deaths in the group on dummy pills than in the group taking the top dose Lipitor.

Statin like **LIPITOR** (atorvastatin) don't save lives, and calcification continues! 17 to 53% less 'bad' LDL cholesterol..



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

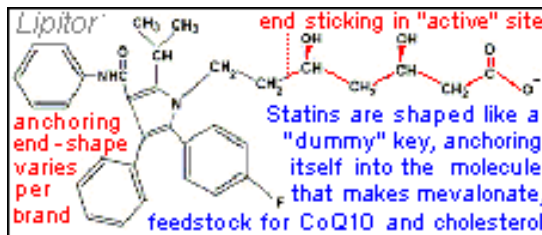
Another 5000 heart patients on top-dose Lipitor for 5 years suffer 2 more deaths than 5000 patients on low dose (TNT study)

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

2006 UP-DATES: 2365 stroke patients for 5 years on top-dose Lipitor suffer 5 more deaths, more serious bleeding strokes and no fewer fatal heart attacks than those on placebo (SPARCL study) and 1200 diabetics on Lipitor for 4 years had 2 more deaths and no fewer 'events' than those taking the placebo (ASPEN study)

Statins aren't cholesterol but mevalonate lowering 'therapy'. This mother-molecule also



makes CoQ10 and other vital stuff with names like isoprene [it takes 10 to make Q10, 6 to make cholesterol], farnesyl, geranyl, dolichol and squalene. Similarly, *aspirin* is not simply "anti-clot therapy", it rearranges all fat-based "house keeping", pain and signal machinery. Statins and aspirin hamper (*inhibit*) fundamental body processes. Whatever good necessarily comes with the bad. On the other hand, niacin *promotes* over 300 reactions and has few harmful effects since it *stimulates* body processes, like all vitamins. Niacin *must* be taken with a multi-B-vitamin or it will raise homocysteine. It is just a partial answer to heart disease and has other benefits but niacin did prevent heart attacks and did save lives; 2006 update.



U.S. TV ad... Steve did everything 'right'—but it wasn't 'enough'

March 2005 **Health Canada**

issues a 'Dear Doctor' letter about the greater than 20 mg dose

IF you can't convince your Dr. NOT to prescribe statin and get a prescription for the highest generic dose, the price drops from \$340 US to \$20 per 1000 mg. Cut the pill into halves or quarters.

Price from Canadian ZocorGeneric.com. Do Google search for 'generic zocor'.

NO risk finding placebo is better than Crestor: only 204 such subjects. (til 2006, combining a total of 5 studies)



Bottom Line: At 10 - 36x the price of *generic niacin* (1.2 kg for \$50 or 80¢ per week [here](#))*, in some types of (mainly male and non-congestive) heart patients, some statins *may* reduce the risk of "events" by one fifth [probably not "deaths", and you have to scrape the statistical barrel]. This leaves no less than 4/5ths of the risk. To deal with the larger under lying problem, remember that fat substitutions have proven of no value, apart from those involving omega-3 oils, and that whole-foods and supplements cheaply lower most risk factors -and survival chances. *(tel. 1.800.544.4440 or 1.954.766.8433; product 94.)

A doctor prescribing statin and not first niacin plus a good multi vitamin, without tracking homocysteine and Lp(a), and without replacement CoQ10, canola and fish omega-3 (pills) and likely a magnesium supplement is practicing incomplete medicine.

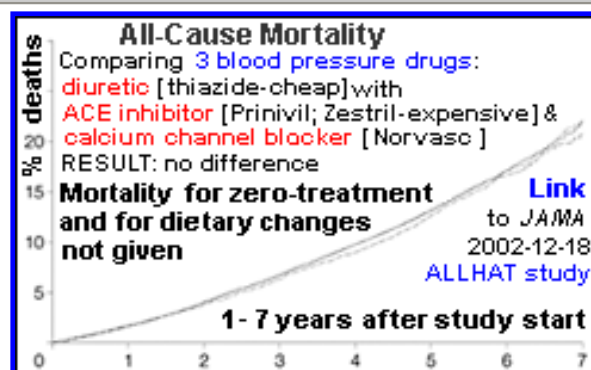
22. BLOOD PRESSURE. The **7 Countries Study** tracked 49 year old men who curiously enough had (in all these varied countries) average systolic blood pressures of 138 +/- 3%. 'Normal' is 120/75 (2.4/1.5 psi); a 10 'point' long-term drop would be success for a drug, yet is only 13g/cm² or 0.2 psi. They found (after 25 years) that heart-mortality in northern Europe and the U.S. was 4 x higher than in coastal south-east Europe or southern Japan (*NEngJMed*; Jan 6 '00: p1). At identical blood pressures, death by heart disease varied '*greatly*' between populations. The same factor 4 difference in heart deaths was also found at identical cholesterol levels.

the question
Do high cholesterol and high blood pressure cause heart disease?
OR
Does poor nutrition cause heart disease, high cholesterol and high blood pressure?

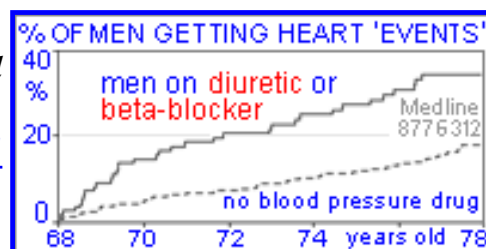
Within each location however people with heart disease were found to have higher blood pressures. The [report](#) and [editorial](#) interpret this as if blood pressure *causes* heart disease; thus the potential for drug treatment. The reverse is more logical: the heart pumping into hardened less functional arteries evidently causes higher pressures than if pumping into healthy ones.

Bottom line. High blood pressure is not good for bleeding stroke but helps maintain blood circulation and prevent dizziness and falls in the elderly. **An increasing pressure is a warning for artery and kidney disease.** The quality of your diet -and often your belt size- are *the* important risk factors for both heart disease and blood pressure. If cholesterol or blood pressure are not risk factors in your case, simply lowering the numbers with drugs is like painting a car while ignoring the oil change. Blood pressure drugs: in 85,572 patient-years of observation,

13% fewer deaths in men but **26% more deaths in women**. More heart attacks in men (figure below) as with a 3rd drug type, the -sartans, and where '*patients may need to be told*'.
[Link to JAMA 2002-12-18 ALLHAT study](#)



There seems consensus that drugs are maybe only warranted in very high blood pressure (and with added diabetes?) and that in *all* cases nutrition and often weightloss are of primary importance and proven worth [--as can be CoQ10]. If you *must*: 'go water pill' [less heart failure] but consider more magnesium, nature's 'calcium channel blocker'.





All blood pressure drugs have side effects -and have not been clearly shown to prolong life! If you have a drug name, check [RxList](#). You may also want to find out about lowering **salt** and increasing high **potassium** foods (fruits and veggies) and increasing **omega-3** oils and the amino acid **arginine** that makes (with help from **vitamin C**) the artery relaxant nitric oxide (found in: lean meat, eggs, low fat dairy, nuts, whole grains, wheat germ or or **nitroglycerin**; - think: dynamite). There are several other nutritional approaches (see book 2 in [links](#)).

About the complexities of drugs in heart conditions: [BMJ; Feb. 12 '00](#).



23. **The AHA** is a 1/2billion\$/year organization with 3.8 million volunteers. Unfortunately, *most* of its prevention approach is tainted by the massive soft-money from interest groups [... treating to "targets", reaching number "goals" in lab reports]. The focus is prevention by lowering fat and cholesterol 'as part of a balanced eating plan'. Its [website](#) recommends in general not to take supplements while among the foods suggested are **water bagels**, **molasses cookies**, **angel cake** and [check for yourself] ... **frankfurter buns**. These are all refined-starch, finely ground flour-based foods, that are high-glycemic, trigger insulin, promote obesity and type 2 diabetes which eventually leads to heart disease and stroke.



There are 3 AHA "heart-checks" on Lipton's "**Promise Ultra Fat Free Nonfat Margarine**" which has "0% fat", zero protein, zero etc. Some *Promise*, 2 of the 50 nutrients you need: water and supplemented vitamin A. Telling you not to supplement, they endorse an imitation margarine for its supplemented vitamin A. How about "**Smart Beat Fat Free American Flavor Non-Dairy Slices**"? Cheers! Also endorsed is the *Breakfast Candy* listed below, because it contains a piece of a multi-vitamin. Such "*nutrient-fortified and enriched starches*" [sic] are in evident conflict with the [CHD-Taskforce](#) and [AHA Dietary Guidelines](#): "...individuals should choose foods and beverages low in sugars, particularly added sugars.



AHA endorsements are sold for a yearly fee and include *Frosted Flakes* (42% sugar and only 1 g fiber), *Cocoa Krispies* ("chocolatey sweetened rice cereal"), *Cookie Crisp* (sugar and hydrogenated oils) and *Cocoa Puffs* (1st ingredient sugar: 47% + 0.2 g fiber, 1/125th of your daily requirement --I managed to grow mold on it so it *does* support life). Then, there's scary *Count Chocula*, synthesized from de-germed corn meal (corn starch), sugar and marshmallow bits, a hydrogenated *Frankenfood* through marriage to the equally spooky *Frankenberry* (95% carbs and 0.2 g fiber -not certified). No joke, but no yolk! No AHA scientists could possibly suggest that *Count Chocula* or spreads like *Promise* "fight heart disease and stroke".

If a food has as much as 1/10th of an egg, a whole food with all the nutrients to make a new chicken and **no evidence of harm**, it won't be endorsed but **sawdust** with over 10% of 1 of only 6 required nutrients (fiber) qualifies. Endorsements based on saturated fat and cholesterol and only one added nutrient is irresponsible. **America's most reliable source of heart-health information**, according to itself, must change its orientation if it doesn't want to remain part of the core problem. Using its dedicated doctors and without corporate money, simple science based advise should be given endorsing all healthy foods even without industrial sponsors. A good step is AHA's position on [omega-3 oils](#) (flax,

canola, fish-oil). If only the word *cholesterol* could be banned; that horse has been dead for 30 years, buried by the trials finding no fewer deaths from cholesterol lowering ([page](#) or [CMAJ](#)). Cholesterol-thinking poisons heart associations world wide: time to face these facts and tell the people.



Donations: Until the AHA gets nutrient-wise, stops endorsing stuff like *Cocoa Puffs* and puts your donation supported 5 journals free on the Internet, Americans may consider giving instead to the excellent nutrition dedicated [Pauling Institute](#) with their *free* news-letter. Why give to the AHA (or similar group) for probably over \$200 million/yr, corporate soft money tainted advice that helps cause disease in the first place? The AHA gets \$90 million/yr from estates but spends \$100 million on fund raising and [\\$3 million on its CEO and vice-presidents](#) with average \$60,000/yr incentive bonuses. Now *that* is charity!



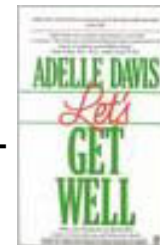
24. **Avoiding liver or fresh eggs** for their cholesterol is most often bad for your heart since they also provide protein, lecithin, choline and B vitamins. Liver is low in fat and it happens to be *the* best source of heart-healthy folic acid (B9), B6, B12, choline and of most other B vitamins, while its betaine (trimethylglycine or TMG) may soon become a heart health food. High cholesterol shrimp are heart-healthy ([AJCN; Nov. '96](#)) -but avoid *trans*-fat filled batter, and dried egg product.

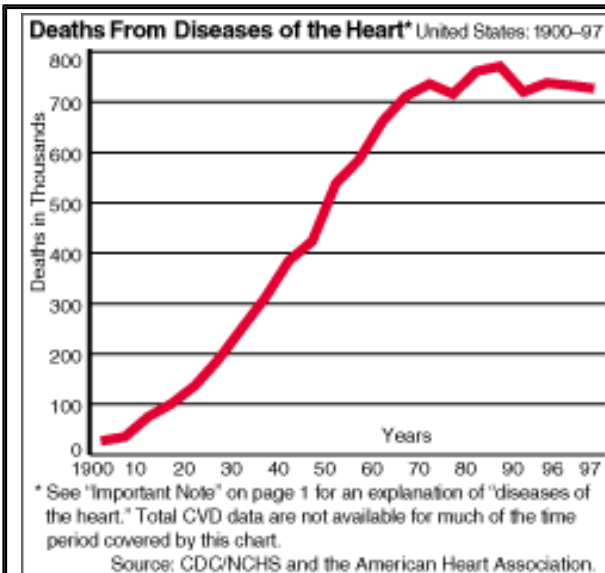
America's most celebrated nutritionist, says her publisher*, Adelle Davis: '*..eggs.. should never be restricted in the diets of persons with atherosclerosis.*' Her chapter about 'cholesterol problems' instead suggests high-cholesterol liver [4 oz or 110 g/day]. It is now clear that fresh *unoxidized* cholesterol is not toxic but that oxidized cholesterol as in egg or milk powder is. It is also clear that the B vitamins in liver lower homocysteine. Recently, Veteran's Administration and Harvard prof., career-long heart researcher McCully published a chopped liver recipe: 1 lb (450 g) chicken livers, 1 boiled egg, 1 tblsp. butter, 1 onion, salt and pepper -fry lightly. Delicious and heart healthy!



About half of the brain, your hormones, nerves and cell walls are various types of fats and cholesterol. It is thus logical that even slightly modified or lacking fats or cholesterol have major effects on physical, and mental, health. Since your brain is basically a machine made of fats (directing other fats and proteins), it is for its own protection not primarily equipped to burn fats (like your heart) and it constantly needs glucose for energy --dying quickly when this blood sugar supply stops (called: a stroke). The brain also protects itself from oxidized cholesterol, the dried egg product variety, by *making* all of its own cholesterol.

It is amazing that 35 years ago Davis suggested the amount of omega-3 now proven as cardio-protective: 1 tblsp. flax/lin or 2 tblsp. *unhydrogenated* soy or of the later developed canola. She was also right that high omega-6 safflower, sunflower and corn don't have such benefit. She was wrong with the theory of the day that people can turn omega-6 into omega-3 [there may be good biological reason to keep these 2 systems separate]. **The same publisher who 6 years after her death concocted "her" to-be-avoided book *Let's Stay Healthy*. Her original 1965 [Let's Get Well](#) with 2280 scientific references however could be a text book in a course Treasures of the First 50 Years of Nutrition Sciences (mistakes and foresight included). A similar book with parallel thinking and 1100 references is [Nutrition Against Disease](#) by vitamin discoverer R.J. Williams.





25. This chart illustrates the great underlying puzzle. Some areas [and here] still have no heart disease while others suffer steep increases like some former East Block countries. The steep part of the curve follows: 1.) the use of low fiber/nutrient flour, made by steel 'roller mills' rather than grind stones; 2.) the invent of hydrogenated fats; 3.) the explosion of added sugars and refined starches and 4.) the reduced use of eggs and other whole foods. Leveling rates follow vitamin additions to breakfast cereals in 1962, the increasing supplement use and omega-3 intake from soy and canola. Since 1998 when folic acid was added to grain products, the decline increased from 1 to 4.5%/year in the U.S.

The American Heart Association directed the fat and cholesterol phobia and a 700% jump in heart disease that [no surprise] paralleled the one in cancer. With this track record, endorsements of *Cocoa Puffs*, *Count Chocula* and other high glycemic index starches and heavy reliance on drugs, the role and direction of the AHA beg for an inquiry. Now, *there's* a job for U.S. vice-president and *1st* heart patient Cheney. The year was 1912: *Procter & Gamble* introduced *trans* fats (foremost made from omega-3's; Crisco 1912) and heart attacks were first described in the U.S. (Herrick. *JAMA*; Dec. 12: 2015-). Angina, nitroglycerin and digitalis *were* known but heart attacks were rare and journal worthy. The *Crisco* ad writers with incredible foresight: "*and realize why its discovery [trans fats] will affect every family in America.*" Ain't that the truth! Life without omega-3': *On Sale* in the U.S.: 3 lbs (1.4 kg) brick-like '100%' cholesterol-free soy margarine, 10,000 kcal, for \$0.99 -Cheers!



26. Carotenoids are "functional pigments" related to vitamin A of which beta-carotene and lycopene [org] are 2 out of over 600. They are best eaten in lightly steamed carrots, tomato (or tomato paste), and in *all* deeply colored fruits and veggies. Without some oil in the same meal they *won't* be well absorbed! Lack of vitamin A in some Asian and African countries is *the* major cause of blindness and one major cause of death in kids. In Western countries, low antioxidants and low carotenoids lutein (the yellow in yolk, and in green-leaf veggies) and zeaxanthin (corn, spinach, greens, fruits) are linked to macular [central vision] blindness in older people (JAMA; 1994: 1413-20) and to adult onset diabetes (*AJCN*; 4-'00). Low lycopene (tomato/paste, watermelon, grapefruit, guava and apricot) is linked to heart disease and prostate cancer (many studies). While vital to good health, *especially* if pregnant or smoking, I'd avoid *supplements* with over about 10,000IU (6 mg) of beta-carotene. Lycopene is *the* predominant carotenoid in the prostate, as are lutein and zeaxanthin in the eye where these "macular pigments" have protective antioxidant roles.



27. **Bone loss (osteo-arthritis / fracture):** eat bone (water, 10% fat, 20% protein, and 25% mineral that is 96% calcium based). It is surprising that not all research about low bone density *first* suggests to eat more bone and/or calcium. Think: when your tire has low air density, you give it air.

Amazing: women at age 84 building better bones when given 1.2g calcium + 800 IU (20 mcg) vitamin D per day: 43% less hip fractures in just 18

months. Low vitamin D is extremely common and a huge player in hip fractures and 22% fewer fractures with a 2.5 mg vitamin D supplement every 4 months (equivalent to 800 IU/day). It is made in the skin when *not* using sun block under a high-angle sun only: burn is bad, sun exposure is vital [[book](#)]. **Surprise, the "D" (all of 10 mg/year) is more important than the calcium.** More: the [vitamin-D-council](#) [best sources: sun, fish liver oil, fatty fish]. BMJ *Lesson of the week: common muscle and lower back pain!* Here's a free [book](#), a cancer [link at SunArc.org](#) and [a great song](#).



Another bone-density risk factor is low vitamin K intake (green leaf veggies, broccoli and cabbage: 2/3rd reduced hip fractures in high vs. low intake --[AJCN; May 2000](#)). Note that [Coumad\(r\)in / Warfarin](#) and antibiotics mess with vitamin K (think: Koagulation, Klotting, Kalcium and Koumad(r)in).

-PS If you can now afford a broken hip or wrist, you could have afforded the about 1.2 g calcium, 700 mg magnesium, 800 -1600 IU vitamin D [[2006 update: 4000 IU/day](#)] and green leaf or cabbage type veggie for vitamin K to have prevented this fracture, or indeed today's bad back -and calcium + D may prevent colon and breast cancer, tooth loss and gum disease and deliver healthy babies; how about flu / influenza! Low D, NOT just an extinct disease in kids! After the sun, my cheap source of D.



2 kids w rickets; 10 mg/yr of vitamin D prevents this.

--PPS High protein (even milk) and soft-drink intake consume calcium from bones unless you also get sufficient extra calcium-type minerals or alkali buffers (fruits and veggies). -and milk over age 30 may not help!

--PPPS Omega-3 (fish oil) helps grow bone! [T Terano or BA Watkins]. Also, lowest vitamins [= highest homocysteine]: men 4x and women 2x the hip fractures in the [Framingham Study](#).

--PPPPS Paradox: faster bone *loss* in bone, faster bone *growth* in arteries. In the lab this happend by oxidized LDL-cholesterol [think: egg & milk powder].



28. **Similarly**, in the case of cartilage loss (**again: arthritis**): eat cartilage (when purified, called glucosamine -shells of crustaceans- and chondroitin -shark and animal cartilage- sulfates) and a lesser source, soft bone itself. Biochemically not surprisingly, research links cartilage health with artery health and heart disease survival ([Morrison/Schjeide](#), medical library book WG300 M879c 1973 and [Angiology](#) 1973; 24(5):269-87). The chondroitin taken for cartilage (joint) health may well help the cartilage (connective tissue = collagen, elastin and 'glyco-s-amines') of your artery walls!



29. **People and animals store** the *types* of fat they eat. For instance 20 mg of butt-fat ('adipose tissue aspirate') reveals your long-term consumption of fats. Feed chickens flaxseed, their eggs retain omega-3. The regular intake of flax oil makes one's heart beat (and skin) stay 'smooth', while lecithin and fish oil keep things 'fluid'. Now imagine: *more than* half their energy from 'killer-coconut' fat yet artery disease was '**uncommon**' in these **Polynesians** -found the great Dr. I.A. Prior. Coconut has mostly rare fats that we *don't* store but that do kill viruses and microbes.

Naturally saturated tropical fats [link under palm-tree], tallow and butter are much **healthier** -and certainly for frying- than the common "vegetable" oils, margarines and shortening (think: **French fry and donut**) as shown in this **Figure 1** in *NEJM*. Surprise, fats are as important as protein: surrounding and controlling every cell and every factory in and on each cell. There are hundreds of fat combinations in the miscellaneous cell walls that "host" this machinery: channels, proteins, enzymes and some DNA -all of which these fats control. They, the fats of the host-membranes, control where the guest proteins go, how they behave and fats may perform tasks for the guest proteins. Fats, in a balance between omega-3 and -6, control every motion, emotion, pain and heart beat, with your brain effectively a glob of smart fat!

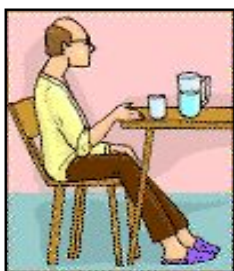


30. **Omega-3** is a problem to food processors as they are liquid and quick to spoil. This is why this vitamin F that prevents death by -and in- a heart attack is eliminated by hydrogenation. This turns it into toxic *trans* fat, a double nutritional whammy underlying heart-disease that is found in 1/2 of N. American vegetable (read: seed) oils. Omega-3 type vitamin F can also be eliminated from the plant, like in the low omega-3 (yellow, not brown) flax/linseed *Linola* or soy cross-breed *Soyola*. There is no guarantee that these nutritionally

inferior stains can be kept separate in the plant kingdom. Regardless, they reduce the few available plant sources of omega-3.

For deep-fat frying low omega-3 strains are still not as safe as saturated fat but they are safer than hydrogenated canola or soy -however at what risk to the long-term omega-3 type vitamin F supply? The key in *all* plant and food engineering is extreme caution and long-term public interest. This is clearly not served by vitamin F removal. Superb omega-3 and *trans* labels are coming to Canada: here's the one proposed for soy. That won't fix the fact that in the U.S. up to 0.49 g "per serving" [there's your loophole] will continue to be advertised as zero *trans*, like '**I Can't Believe It's Not Butter!**' margarine. *Trans* warnings on labels and menus would give consumers health options until governments ban hydrogenation altogether. **Until then**: if the listed fats don't add up to the total fat, the balance is *trans*, so avoid [in the above label: 2+1+7+4 = 14, thus 0 *trans*].

Nutrition Facts	
Serving 1 Tbsp (14g)	
Amount Per Serving	
Calories 130	
	% Daily Value
Fat 14g	22%
Saturated Fat 2g	10%
Omega-3 Fat 1g	
Omega-6 Fat 7g	
Monounsaturated Fat 4g	
Carbohydrate 0g	0%
Protein 0g	
Note: Not a significant source of trans Fat, cholesterol, sodium, fibre, sugars, vitamin A, vitamin C, calcium, and iron	



31. **Eddie's Muesli "The Breakfast Mix"**: 1/3 no-fat yogurt +1/3 fruits (currants, raisins, apple, banana, strawberries, blueberries, cantaloupe, apricot, prune, papaya) + 1/4 whole rye (cook 1-2 min.) & oat kernels, oat bran & wheat germ (&/or rolled oats or low-fat granola type cereal) + 1/6 lecithin, flax seeds, flax oil, sunflower seeds, Brazil & walnuts (better oil than pecans and almonds). Powdered vitamin C keeps things fresh. Mix in 1 gal. (4 l) container. Let sit for 12 hours. Refrigerate & eat within 7 days. **Good & delicious breakfast and snack food; increase the fruits and you'll get a dessert -vary to taste.**



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Made in Canada. 🇨🇦 Good health! Jan. 1st, 2008.

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Here's a little info about Eddie Vos, the person behind the heart and nutrition site www.health-heart.org.

I am a 61 year old material sciences engineer with no sign of the diseases I write about. I work close to Montreal, just North of the Vermont border. My work is to determine the causes of technical failures. I go on location, establish physical data and facts and add those up in a report --and try to do the same with some of the diseases that have popped up in the last century .. and why arteries fail.



Growing up in Holland, my first English book was *The Origin of Life* by Russian scientist A.I. Oparin. I got a scholarship to study biochemistry but chose material sciences engineering, so a long-term hobby about how-life-works was born. Now my reading material comes from 'Journals' and sites like [Medline](#), anyone's free internet medical library or [consumer info](#).

We all deserve a hobby so this site is a model-train of sorts and to keep it on-track and independent, it won't generate money from approaches it proposes. Medical or dietetic association and drug companies can't sanction me, so I am free to follow unadvertised and less traveled tracks, if that is where the science goes.

The reward from this hobby is in meeting and corresponding with some of the remarkable people in the field, from lay-people to icons, in following the science and in attending at least one scientific conference each year. My writings led to 8 references on *Medline*.

The responsibility of running this website is that it can affect people's health. I answer all e-mail and while careful to indicate I'm not a doctor and while supplements cause about 1 million times fewer premature deaths than drugs, some nutrients can act like them or change their action. With people taking increasing amounts of drugs, it's evident, for example, that people on blood thinners shouldn't overdose on fish-oil or vitamin E and there are many such drug-nutrient effects.



Uffe Ravnskov [cholesterol], Eddie Vos [yours truly], Kilmer McCully [homocysteine] -- Washington D.C., May 2003

The concept behind the site, the age-old "let foods be your medicine" is based on the fact that *all* diseases may be helped, caused or made worse by nutrition. You *are* what you ate --and *become* what you don't eat -deficient and ill. **A well balanced diet *won't* get you all the nutrients you need** is a reality confirmed by almost every issue of the Journals I read. While healers

and websites have views one should consider, balancing many ideas, and listening to one's body, appears most beneficial in health.

I've never had a regular doctor, I fry my eggs in coconut oil or butter, order my weekly liver sautéed in butter and take my daily *Twinlab* multi and a few other supplements, including calcium/magnesium+D, and a few grams C, niacin and betaine [B14]. I keep up my omega-3 oils and avoid hydrogenated or deep fried foods and junk cereals. Yes, it's easy to not get enough fruits and vegetables but as the *Lipitor* ad on U.S. TV says: "no body is perfect."

I hope this website serves you well. While I take responsibility for the site, I extend my appreciation to the many others who have contributed. **Publications:**

- * Vos E, Mascitelli L, Rose CP. **Does simvastatin save lives: if so, when and in whom?** [in progress *J Vasc Surgery*]
- * Vos E, de Groot P. **Low LDL cholesterol, statins, and brain hemorrhage: Should we worry?** *Neurology* 2007.
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