TheElite Training Group track club

Expanding the area of what is possible
In Track & Field Distance Running & Competent Self-Care in medicine and psychology

www.theetgtrackclub.com

TheETG heart disease repair

A major part of TheETG mission is to expand the area of what is possible in competent self-care in medicine and psychology. TheETG’s primary method of achieving that is to proliferate applied science based information by way of $free packets containing plain language info for anyone seeking to move themselves or others forward in these areas.

As you continue to acquire and apply more information you continue to expand the area of what is possible. Data-less conclusions founded upon faulty assumptions are the mother of all screw-ups. Put data ahead of dogma. Follow the data -not- the crowd.

TheETG packets attempt to address the following;

“.....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts.”
[Journal Of The American Medical Association...Volume 302 #1...July 1, 2009...page 89 - 91]

“Not enough doctors adapt appropriately to new scientific findings.....An insufficient number of medical faculty members are well prepared, effective educators, and too few medical schools prepare their students for a lifetime of learning and change.”
[J.Hilliard, et al. -- The Lancet -- Volume 385 #9969 -- February 21, 2015 -- page 672]

“.....takes an average of 17 years to translate 14% of original research into benefit.....average of 9 years for interventions recommended as evidence-based practices to be fully adopted.”

“.....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report.”

“It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States.”
[Centers For Disease Control -- 2015]

“Most drugs are only effective for a small percentage of people who take them.”
[Michael Leavitt -- U.S. Secretary of Health & Human Services 2005 - 2009]

“.....A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."</p>
[President Barack Obama -- Speech to the American Medical Association -- June 15, 2009]

“All the good things....they don't teach us in medical school, because the drug companies pay for our education.”
[Dr. John Sessions M.D.]

You may copy any and all contents of this packet, with exception and exclusion of using such copies for purposes of producing revenue, profit, or any direct or indirect compensation.
reversing clogged arteries........

"In a prospective, randomised, controlled trial to determine whether comprehensive lifestyle changes affect coronary atherosclerosis after 1 year, 28 patients were assigned to an experimental group (low-fat vegetarian diet, stopping smoking, stress management training, and moderate exercise) and 20 to a usual-care control group."

"195 coronary artery lesions were analysed by quantitative coronary angiography."

".....82% of experimental-group patients had an average change towards regression.

".....regression of even severe coronary atherosclerosis after only 1 year, without use of lipid-lowering drugs."

D. Ornish, et al
Can lifestyle changes reverse coronary heart disease? The Lifestyle Heart Trial
The Lancet....Volume 336, #8708....July 21, 1990....page 129
Major Mechanisms Of Heart Disease

Clogging of an artery [coronary artery] that brings blood to the muscles of the heart is one of the most common forms of "heart disease"

**Damage To LDL, The Carrier Of Cholesterol -----**

Cholesterol is transported through the blood to the places in the body where it is needed, by carriers called Low Density Lipo-protein [LDL], and High density Lipo-protein [HDL]. Damage to the carriers of cholesterol can generally result in their cargo becoming involved with the artery walls in such a manner as to cause some degree of blockage, once a significant amount has piled up. A specific type of carrier of cholesterol [LDL], is highly susceptible to attack by particles called "oxidants" [free radicals, reactive oxygen species], in the blood. These particles are called oxidants because they "oxidize [damage] things such as fats/proteins that comprise LDL. Anti-oxidants prevent oxidant induced damage by taking up the oxidants before they can cause damage. The immune system attempts to clean-up the debris on/in artery walls left from damaged LDL by sending in cells called macrophages. When the rate of oxidant damage to LDL exceeds the macrophages ability to remove the debris, the macrophages may become part of the problem as they become engorged with debris from the damaged LDL...and begin losing their functional abilities. People who have maintained relatively high levels of stress in their day to day lives [ie. live stress as a life style, have stress addiction], generally have high stress hormone [cortisol] levels as well. Cortisol impairs the function of the immune system cells [macrophages], and stress results in increased oxidant damage to LDL, thus accelerating the formation of "heart disease" [if you grew up in the United States, you may want to consider the possibility that the amount of stress you consider to be "normal", is not "normal"]. LDL is normally cleared from the blood by the liver. The liver can clear even oxidant damaged LDL. But when the rate of damage gets too great, the macrophages and the liver cannot prevent blocking of the blood vessels.

**Heart Attack -----**

The deposited cargo of the LDL on or inside the coronary arteries tend to harden over time. They achieve a certain level of stability [or instability]. A sudden increase in blood flow or pressure due to heavy exertion/excitement through the already partially blocked artery, can cause unstable deposits to be damaged. This can occur when those inflexible portions of the blood vessel must deal with more blood flow than they can handle. Also, running/exercising when in a significantly dehydrated state [such as during a prolonged workouts/road races] may affect blood flow through a partially blocked artery in such a way as to cause unstable deposits to be damaged. The damage causes a response by cells called platelets which may form a clot in the vessel in the area of the damaged deposits, which in many cases can result in substantial, if not complete blockage of the coronary artery. This shuts down blood flow to the muscles that make the heart pump blood to the brain and body. Those muscles need the oxygen and nutrients in that blood in order to function. Once they are denied that blood for a critical amount of time, they cease to function, and the heart stops pumping blood to the brain and body. This is one of the more common scenarios that is referred to generally as a "heart attack".

**Homocysteine & heart disease -----**

Methionine is an amino acid contained in the protein foods we eat. Once in the body, our cells will convert some of it to homocysteine, which is also an amino acid. The homocysteine is then converted into the antioxidant that our bodies produce, called Glutathione. There are two important enzymes responsible for converting homocysteine into Glutathione. One is made from Vitamin B6, and the other from Vitamin B12. Homocysteine accumulates in the blood when there is an insufficient intake of vitamin B6 & B12 that convert homocysteine into Glutathione. Homocysteine is a "pro-oxidant". It induces the production of oxidants that will attack blood vessel walls as well as LDL, the carrier of cholesterol. This results in clogging of the arteries and blood vessel degeneration (heart disease). This is why your doctor will tell you that you are at "high risk" of getting heart disease when your blood tests show high levels of homocysteine.

**Reversing Heart Disease......& Preventing Heart Disease -----**

Blockages in arteries are reversible. Small changes in blocked arteries result in large changes in blood flow. Stabilization of deposits can occur within days or weeks, and major improvements in blood flow can occur within 12 weeks. The most effective ways to prevent/reverse heart disease are to simultaneously address the main causes.

1. Reduce oxidant attack On Carriers Of Cholesterol [LDL] --- [Anti-oxidant intake]
2. increase the body's utilization of cholesterol, and the liver's ability to dispose of it --- [high intensity, low volume Exercise]
3. increase the body's ability to clear LDL deposits on artery walls --- [reprogram stress creation/addiction behaviors]
4. improve blood vessel wall cell function --- [reprogram stress creation/addiction behaviors]
5. reduce homocysteine levels --- [vitamin B intake]

--- Reduce oxidant attack On Carriers Of Cholesterol [LDL] --------

The body does have cells/enzymes that can breakdown and remove the deposits. However, when the rate of deposit exceeds the rate of removal, problems will result. Obviously, the primary objective should be to slow the rate of deposit to a level that is substantially below the rate of removal. One can slow the rate of deposit by reducing oxidant damage to the cholesterol carrier, LDL. Anti-oxidants take up oxidants, thus preventing oxidant induced damage. Increasing one's intake of the anti-oxidants.....Vitamin E, Vitamin C, Beta Carotene, Selenium......reduces oxidant damage to LDL. All four are needed because they work together. Vitamin E is the primary protector of LDL, and Vitamin C helps stabilize deposits on artery walls. One of the main reasons so many people in the U.S.[over 500,000] die of heart disease each year is because of low intakes anti-oxidants. In the modern era, our exposure to oxidants, both from the environment we live in, and the stress levels we tolerate/get addicted to, increase our body's oxidant load well above what can be dealt with by consuming "a well balanced diet" or by consuming "a diet rich in fruits and vegetables". Continued reliance on weak minded cliches will continue to result in a large number of deaths. Most people fail to take in the Recommended Daily Allowance [RDA] of each anti-oxidant, and the RDA's are well below what a logical person should consider to be adequate for the times in which we live. Unless one has a cell problem in properly utilizing these anti-oxidants, one may do well to take supplements 3 - 4 times per week. These levels of intake may be closer to adequate than the current RDA's......[Vitamin E -- 400 IU....Vitamin C - 500 mg....Beta Carotene -- 25000 IU....Selenium -- 250 mcg].
-- Increase The Body's Utilization Of Cholesterol & The Liver's Ability To Dispose Of It -----
Lack of exercise of body tissues tends to create a relatively high availability of things circulating around in the blood due to under utilization of them by otherwise "exercised" body tissues [ie. muscles and nerves]. You'll see this in areas such as estrogen's role in breast cancer, testosterone's role in prostate cancer, and cholesterol's role in heart disease. Cholesterol is used to form cell membranes in nearly all tissues of the body, including muscle. It is also used to produce various substances in the body that are used by muscle, such as steroid hormones. Short duration, high intensity exercise effectively increases cholesterol utilization. The more cholesterol one uses, the less there will be left over to cause problems in one's blood vessels. This training induced increase in cholesterol utilization also causes greater use of HDL [the so-called "good" cholesterol] to carry cholesterol through the blood, and reduces use of the LDL carrier. HDL is not as easily susceptible to oxidant attack as LDL, which is why HDL is referred to as the "good" cholesterol. Also, the liver is the main processing plant for the eventual elimination of cholesterol from the body. Short duration, high intensity exercise training, causes an increase in the number of receptors for cholesterol in the liver. This results in the liver being able to increase the removal of cholesterol from the blood.

All exercise programs are not the same, and do not yield the same results. The one you follow may fail. An "effectively designed" exercise training program may work far better than cholesterol lowering drugs, and unlike these drugs, does so without creating a situation where your name may eventually have to be placed on the liver transplant list. The major problem with the community of traditional medicine on the subject of heart disease, in the area of rehab/prevention, is in offering patients "effective" exercise training programs, and coming out of denial about the effects of -- store bought -- anti-oxidants. If you watch TV commercials put on by drug companies, you'll notice that their message, is not "if", but....."when".....exercise isn't enough, talk to your doctor about drug this, or drug that. Many doctors are quick to conclude that "exercise" per se, is in-effective, because whatever arbitrarily designed training program they put a patient on failed to result in lowered cholesterol levels. Thus, the doctor's conclusion is that "exercise" doesn't work for this patient, rather than concluding that the particular exercise program the patient was given, was in-effectively designed. Thus the leap for the prescription pad and/or surgical knife. Drugs may be temporarily helpful for the patient who won't or can't exercise effectively. However, in traditional medicine, drugs are now the first, rather than last, resort.

-- Increase The Body's Ability To Clear LDL Deposits In Artery Walls
......Improve Blood Vessel Wall Cell Function -----
Do things that improve/maintain high level immune function and lead to improved blood vessel wall cell function

--- Establish down time during the day for engaging in autogenic relaxation, meditation, napping, massage, prayer, or hot bath/Jacuzzi.
--- Watch standup comedy live or on TV, often.
--- "Enriched" physical and social environments improve immune function. Colorful furniture - mobiles - plants - walls - posters, as well as music, lamps w/dimmer switches, extracts from aroma therapy shops, post affirmations/goals on a wall.
--- Develop the major life skills of being solution, logic, and mastery oriented. Establish rational thought and pro-activity as major values in life. These skills remove and prevent destructive aspects of stress rather than simply managing it. They produce high levels of self-competence and self-efficacy, which lead to self-mastery. This reduces chronic exposure of brain cells and body tissues to elevated levels of glutamate (a brain neurotransmitter), cortisol (stress hormone), Interleukin-10, and adrenaline, which induce brain cell destruction, immune system suppression, and tumor growth.
--- Deal with all major "inner-child" wounds (see John Bradshaw's book "Homecoming") and issues thus creating changes in brain cell function and basal stress levels which directly affect immune cell function.
--- Establish a strong support group of "functional" friends to spend time with in all major areas of your life.
--- Get a well mannered, lovable, huggable pet [get dog training video made by the best dog trainer ....see store section of www.unclematty.com].

- Reduce Homocysteine Levels -----
Even very high Homocysteine levels drop dramatically within a few weeks by the simple supplementation of Vitamin B6 and B12. Homocysteine is not only a cause of heart disease of which over 500,000 people die each year in the U.S., but since it is a producer of oxidants that can damage cell DNA, it is also a cause of cancer. Heart disease is the leading cause of death among women, and 700,000 new cases of cancer among women are diagnosed each year. Combining high homocysteine levels with low exercise, high stress/stress addiction levels, and steady intakes of other "pro-oxidants" such as caffeine and alcohol, easily accounts for the staggering number of heart disease, stroke, and cancer deaths in the U.S. among both men and women.

Food Intake -----
People who engage in short duration, high intensity exercise training and consume reasonable levels of anti-oxidants, can process practically any amount of cholesterol they consume in their diets. Thus it is unnecessary for them to avoid cholesterol in their diets. Athletes who avoid cholesterol often end up with major problems in their cells, being unable to make required training induced improvements in cell structure and function. For people who have significant blockages of their arteries.....people who do not exercise or consume adequate levels of anti-oxidants.....and people who are missing the genes in the liver that tells liver cells how to produce the cholesterol receptors.....for these people, reducing cholesterol intake will reduce the rate of deposit and facilitate artery blockage removal, since reducing cholesterol intake is more effective than creating changes in the blood levels of HDL and LDL.

Which One Gets You First -----
The only challenge to understanding this disease process, is in learning why some people will have the damage occur to the blood vessels on the heart (heart disease), while others will have it occur to the blood vessels in the brain (stroke), while yet others will have it occur to the blood vessels in the eye ("age-related" Macular degeneration). It is highly likely that where you see heart disease, you will also eventually see stroke and macular degeneration assuming the person survives long enough. It may basically come down to "which one gets you first".
Reversing Heart disease......

“Cholesterol efflux capacity from macrophages, a metric of HDL function......”

“....ability of HDL to promote reverse cholesterol transport by accepting cholesterol from......macrophages.”

“Cholesterol efflux has been shown to protect macrophages from LDL-induced apoptosis.....”

A.V.Khera, et al
Cholesterol Efflux Capacity, High Density Lipoprotein Function, and Atherosclerosis

Turns out that simply having high HDL levels doesn’t really mean anything. Having a high level of function in ability to induce the removal of cholesterol from immune system cells is what is important.

The process of artery blockage and hardening includes cholesterol being dumped by malfunctioning cholesterol carriers [known as LDL, the “bad cholesterol”] into an artery wall.....and immune system cells called macrophages arriving to gobble it up. When the macrophages get engorged with cholesterol they malfunction and get embedded in the artery wall. Heart disease wise, things go downhill from there.

All disease processes being reversible, the cholesterol carrier called HDL [known as “the good cholesterol”] has the ability to cause cholesterol to efflux out of the macrophages.

Rather than having your total cholesterol levels measured, or levels of LDL and HDL, it would be best to measure HDL functioning ability. Specifically, HDL’s “cholesterol efflux capacity”.

A low capacity is associated with an increase in the thickening of the carotid artery [the large blood vessel that carries blood from the heart to the brain, killing thousands of Americans each year], and the appearance of heart disease on scans and images.
Update 2009

Looking like one of cholesterol's main roles in the blood stream may be to patch-up damaged walls of blood vessels.

The problem appears to be that carriers of the cholesterol [mainly LDL] get attacked by oxidants that aren't taken-up by anti-oxidants.

The cholesterol starts piling up in the wall and into the blood transport area of the blood vessel, gradually over time blocking the vessel, causing high blood pressure.

The scenario is complicated by Traditional Medicine's focus on lowering cholesterol [with a drug] to some magical target number. This lowers the rate of death due to heart attack while increasing the rate of death due to low cholesterol and the nutrient depletion [coenzyme Q-10, etc]. Effectively exchanging one cause of death with another.

That's rather than collectively:
--- removing cholesterol buildup from the artery wall via the combo of
  Vitamin K2
  Vitamin D3
  Magnesium
  Kyolic [aged garlic]
  --- reducing damage to blood vessel walls and subsequent inflammation via
  high grade fish oil
  Vitamin C
  pH water & alkaline foods
  --- reducing oxidant attack on cholesterol [via anti-oxidants]
  --- reducing the level of homocysteine [which damages LDL and exacerbates inflammation processes] via B-vitamins

The scenario is complicated further by Traditional Medicine's focus on lowering blood pressure [with a drug] by thinning the blood, rather than removing the buildup of cholesterol from the artery wall and reducing the inflammation from the damaged artery wall.

"Less than 1 percent of our health care spending goes to examining what treatments are most effective. Less than 1 percent."
"As a result too many doctors and patients are making decisions without the benefit of latest research."
"A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."

{President Barack Obama...Speech to the American Medical Association --- June 15, 2009}

[--- Uffe Ravnskov, MD, PhD ---]

"Consider the finding of Dr. Harlan Krumholz of the Department of Cardiovascular Medicine at Yale University, who reported in 1994 that old people with low cholesterol died twice as often from a heart attack as did old people with a high cholesterol.

"...most studies of old people have shown that high cholesterol is not a risk factor for coronary heart disease. This was the result of my search in the Medline database for studies addressing that question. Eleven studies of old people came up with that result, and a further seven studies found that high cholesterol did not predict all-cause mortality either."

http://74.125.93.132/search?q=cache:XIF3I6HKaPUJ:www.westonaprice.org/moderndiseases/benefits_cholest.html+over+60+years+old+higher+cholesterol+1
onger+life+journal+-+of&cd=1&hl=en&ct=clnk&gl=us

[--- The Cholesterol Hoax [Dr. Sherry Rogers MD] ---]

Cholesterol is not the biggest cause of heart disease nor is it predictive of heart disease. In fact, over half the folks who die of a heart attack never had high cholesterol. But they did have other warnings that could have saved their lives, had they been checked. And the cure for these is spelled out here via safe non-prescription nutrients. Cholesterol is merely the messenger, the smoke detector, alerting you to a curable problem. Why shoot the messenger with a drug when you can find the cause and cure once and for all?

http://www.amazon.com/Cholesterol-Hoax-Sherry-Rogers/dp/1887202064
Heart Disease101.....

--- main form of heart disease = gradual closing off of blood vessels that reduces blood flow and increases blood pressure
--- closing off of blood vessels = accumulation of calcified cholesterol plaques on blood vessel walls
--- stimulator of cholesterol plaque accumulation = cortisol, also known as stress hormone
--- immune cells that remove cholesterol plaques = macrophages
--- suppressors of macrophage removal of cholesterol plaques = macrophage inhibitory factor, chronic stress related cortisol [stress hormone]
--- associated with high levels of macrophage inhibitory factor = cholesterol plaques
Mechanism of reversal of heart disease reversal =
-- remove cholesterol plaques via restoration of macrophage function via mind-body medicine strategies that reduce cortisol [ie. stress reduction]
-- remove cholesterol plaques via nutriceuticals [Vitamin K2, aged garlic extract called Kyolic, resveratrol]
-- remove cholesterol plaques via low volume high intensity exercise
-- reduce stimulation of cholesterol plaque accumulation via mind-body medicine strategies that reduce cortisol [ie. stress reduction]

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Vitamin K2 builds calcium deposits in bone.....has the opposite effect on blood vessels, activating a protein called Matrix Gla Protein, the most potent blood vessel calcification inhibitor......
"Vascular calcification is a predictor of cardiovascular morbidity and mortality."

"Matrix Gla protein is a central calcification inhibitor of the arterial wall..."

"its activity depends on vitamin K-dependent γ-glutamate carboxylation."

"Uncarboxylated Matrix Gla protein formed as a result of vitamin K deficiency, is associated with cardiovascular disease."

"53 long-term hemodialysis patients in stable conditions.....50 healthy age-matched individuals served as controls."

"Menaquinone-7 (vitamin K2) treatment at 45, 135, or 360 micrograms per day for 6 weeks."

"At baseline, hemodialysis patients had 4.5-fold higher dephosphorylated-uncarboxylated Matrix Gla protein and 8.4-fold higher uncarboxylated osteocalcin levels compared with controls."

"Vitamin K(2) supplementation induced a dose- and time-dependent decrease in circulating dephosphorylated-uncarboxylated MGP, uncarboxylated osteocalcin, and PIVKA-II levels. Response rates in the reduction in dephosphorylated-uncarboxylated MGP levels were 77% and 93% in the groups receiving 135 micrograms and 360 micrograms of menaquinone-7, respectively."

".......it is the first study showing that inactive Matrix Gla protein levels can be decreased markedly by daily vitamin K2 supplementation. "

R. Westenfeld, et al
Effect of vitamin K2 supplementation on functional vitamin K deficiency in hemodialysis patients: a randomized trial.
American Journal Of Kidney Disease.....Volume 59 #2.....2012....page 186 - 195

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population-based Rotterdam Study conducted over a 10 year period ending 2004
--- diets providing 32 micrograms of vitamin K2 reduced blood vessel calcifications by 50%
--- decreased risk of cardiovascular death by 50%
--- 25% reduction in overall deaths from any cause

8 year study on women
--- in the diet, for every 10 micrograms of vitamin K2 consumed, risk of coronary heart disease dropped 9%
--- 45 micrograms of MK-7 no interference with blood-thinning medications

79 patients.....blood pressure-lowering, aged garlic extract [Kyolic]
After four months........
-- 240mg of aged garlic extract = systolic blood pressure down slightly
-- 480mg = significant results
-- 960mg = only slightly better than the group taking 480mg

Coenzyme Q10 (CoQ10)
doses = 100 - 120mg
-- reduce Systolic blood pressure by 17mm Hg
-- diastolic blood pressure 10mm Hg
Clearing clogged blood vessels 101.....

Blood vessel walls in the brain, beta amyloid plaques
Blood vessel walls in the body, calcified cholesterol plaques
Move away from the quackery based traditions of Traditional Medicine that expensively "treat" disease while allowing it to continue to progress and eventually kill ya. Move toward a research based applied physiology approach that halts and reverses disease.

To be a good doctor one must -first- be a good physiologist. To be a good patient one must -first- be a good consumer, placing outcomes and results ahead of a practitioner's bedside manner, appearance of competence, and your potential need to follow the crowd out of fear or self-esteem/self-sabotage issues.

Follow the data -not- the crowd.
Its the 21rst century. Come join us there.

Obviously a well designed low volume high intensity exercise training program works pretty well, but for those unwilling or unable to go there, one can combine some things for a research based reversal of disease...

--- Resveratrol...dosage 200 - 300mg
$35 per bottle -not- $350 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- N-acetyl-cysteine...dosage 600 - 1200mg
$8 per bottle -not- $80 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- Phosphatidy-serine...dosage 100 - 200mg
$35 per bottle -not- $350 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- Vitamin K2....dosage 40 - 90 mcg
$15 per bottle -not- $150 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- Kyolic....dosage 300mg
$15 per bottle -not- $150 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- Fish oil....dosage 2 grams
$20 per bottle -not- $200 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- acetyl-L-carnitine....dosage 500mg - 2000mg
$25 per bottle -not- $250 for a prescription drug and its side effects to "treat" disease while allowing it to progress.

--- b12, b6, folic acid......dosage 1000mcg, 2mg, 800mcg respectively
$13 per bottle -not- $130 for a prescription drug and its side effects to "treat" disease while allowing it to progress.
Alzheimer's, Heart Disease, Cancer......

Medically the 3 big ticket items in America.
Fewer than 10% of people that get these are in an "its genetic" situation.

Medically the 3 big ticket items in America all have the immune system in common......

--- In Alzheimer's....macrophages are a specific type of immune system cell that are supposed to remove beta-amyloid plaques from brain blood vessel walls, preventing beta-amyloid's continued accumulation and toxicity to brain cells, especially those in the memory areas of the brain called the hippocampus.

--- In Heart Disease....macrophages are a specific type of immune system cell that are supposed to remove cholesterol plaques from blood vessel walls, preventing their continued accumulation and significant blocking of blood flow through blood vessels.

--- In cancer... "Natural killer cells" are a specific type of immune system cells that are supposed to kill cancer cells, preventing their continued growth and spread.

At autopsy, many Americans that died of Alzheimer's were developing heart disease and cancer.
At autopsy, many Americans that died of Heart Disease were developing Alzheimer's and cancer.
At autopsy, many Americans that died of cancer were developing Alzheimer's and cancer.

--- In the brain, when rate of beta-amyloid deposits exceeds the rate of removal, and does so for years or decades, this is what Alzheimer's looks like.

--- In the blood vessels around the heart, legs, neck, etc, when rate of cholesterol deposits exceeds the rate of removal, and does so for years or decades, this is what Heart Disease looks like.

--- In the body in general, when rate of cancer cell production, growth, and/or spread exceeds the rate of cancer cell death, and does so for years or decades, this is what Cancer looks like.

To be a good doctor one must -first- be a good physiologist.
Physiology is -not- pharmacology.
You can't drug your way to a fully functioning immune system.
You can't drug your way to restore an immune system to full functioning.

Rather than focus on the removal of beta-amyloid plaques in the brain by macrophages, the Traditional Medicine approach is to drug their way to artificially upping neurotransmitters related to memory and thinking ability to help people "live with" beta amyloid continuing to kill off their brain cells.

Rather than focus on the removal of cholesterol plaques by macrophages, the Traditional Medicine approach is to drug [via statin drugs....Lipitor, Crestor, Pravastatin, etc] their way to slowing the rate that cholesterol plaques continue to accumulate on blood vessels walls, continuing to close off the blood vessel and kill patient.

Rather than focus on the killing of cancer cells by Natural Killer cells, the Traditional Medicine approach is to drug and radiate their way to temporarily killing some cancer cells while also killing off the body's main killers of cancer cells, sending the patient on their way with a low functioning immune system and the likelihood of recurrence in spite of the "cancer survivor" mantra.

--- Relatively modest levels of immune system suppression maintained over years or decades can have major effects. It can be enough to create a situation where.....beta amyloid's binding of a small amount of a substance called "macrophage-inhibitory factor" can be all that's necessary for Alzheimer's progression across years and decades.

--- Relatively modest levels of immune system suppression maintained over years or decades can have major effects. It can be enough to create a situation where.....a small amount of cholesterol causing engorgement of macrophages rendering them useless can be all that's necessary for Heart Disease progression across years and decades.

--- Relatively modest levels of immune system suppression maintained over years or decades can have major effects. It can be enough to create a situation where.....cancer cell production of a small amount a substance called "Inter-Leukin-10", preventing Natural Killer cells from killing them off can be all that's necessary for Cancer progression across years and decades.

To be a good doctor one must -first- be a good physiologist.
Physiology is -not- pharmacology.

Mind-Body Medicine is all but exclusively about using the brain to increase immune cell number, immune cell activity, and restore immune system functioning. Through published research, Nutrition Medicine has identified several individual nutrients that can be consumed in supplement form to increase immune cell number, immune cell activity, and restore immune system functioning.

The immune system.....Chronically elevated levels of stress, levels maintained for years or decades chronically reduces immune cell number, immune cell activity, immune system functioning. Stress leads to increased production of beta-amyloid, increased deposits of cholesterol on blood vessel walls, increased production of cancerous cells.
Through published research, Nutrition Medicine has identified several individual nutrients that can be consumed in supplement form that interfere with beta amyloid production or its continued existence. Such as resveratrol. Such as curcumin. Such as N-acetyl-L-cysteine. Such as L-Carnitine.

Through published research, Nutrition Medicine has identified several individual nutrients that can be consumed in supplement form that interfere with cholesterol getting deposited on artery walls or aid in its removal. Such as Vitamin K2. Such as Allicin [Kyolic]. Such as Resveratrol.

Through published research, Nutrition Medicine has identified several individual nutrients that can be consumed in supplement form that can increase Natural Killer Cell activity and function in killing cancer cells. Such as liquid colostrum. Such as very long chain plant sugars [organic Aloe Juice]. Such as nucleotides.

To be a good doctor one must -first- be a good physiologist.
Physiology is -not- pharmacology.

"All the good things....they don't teach us in medical school, because the drug companies pay for our education.”
[Dr. John Sessions M.D.]

".....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts.”
[Journal Of The American Medical Association...Volume 302 #1..July 1, 2009...page 89 - 91]

"In the United States, 50% of people over age 85 will develop Alzheimer's disease”
[CEO of the Alzheimer's Foundation Of America]

Meditation or relaxation exercises.
The memory, thinking, and reasoning areas of the brain are no different than muscle. Decades of stress and overwork will present its bill at some point.

Exercise the brain.
The memory, thinking, and reasoning areas of the brain are no different than muscle. Atrophy due to disuse will eventually create a breeding ground for oxidants and pro-oxidants that will attack tissues and DNA, leading to several disease processes, from clogged blood vessels [stroke] to altered cell production [cancer]. This is more than "use it or lose it". You'll not only lose it if you don't use it, but you'll contribute to disease if you don't use it.

Exercise the brain.
The brain controls muscle. Walking, running, lifting weights, etc, don't just exercise muscles and heart, they exercise the brain cells as well. Atrophy due to disuse [ie. lack of exercise] will eventually create a breeding ground for oxidants and pro-oxidants that will attack tissues and DNA, leading to several disease processes, from clogged blood vessels [stroke] to altered cell production [cancer]. This is more than "use it or lose it". You'll not only lose it if you don't use it, but you'll contribute to disease if you don't use it.
Stroke

**Statin drugs = Lipitor, Crestor, Pravastin, etc., etc.**
--- Lipitor approved in 1996
--- The top selling pharmaceutical in the world
--- 25 million Americans take statin drugs to lower cholesterol

One of the main studies practitioners of Traditional Medicine rely upon to justify continued reliance upon statin drugs.....

**M.R. Law, et al**
Quantifying effect of statins on low density lipoprotein cholesterol, ischaemic heart disease, and stroke: systematic review and meta-analysis
British Medical Journal....Volume 326 #7404....June 28, 2003.....page 1423

A study that did an analysis of a collection of 58 studies.
Results of that analysis.....
--- risk of heart attack reduced by 10% in the first year of treatment
--- risk of heart attack reduced by 25% in the 2nd year of treatment
--- risk of heart attack reduced by 30% in years 3 through 5
--- risk of heart attack reduced by 35% in years past 5 years of treatment

The take home message.....
--- if you take it everyday for more than half-a-decade,
your best result will be a 35% reduction in risk of heart attack

"As long as people will accept crap, it will be financially profitable to dispense it."
[Dick Cavett]

"All the good things....they don't teach us in medical school, because the drug companies pay for our education."
[Dr. John Sessions M.D.]

"For every dollar we spend on prescription drugs, we spend a dollar to fix the complication."
Dr. Mehmet Oz [Professor of Surgery, Columbia University]

Follow the money.
Using Lipitor, the top selling drug in the world as an example.....

**J.C. LaRosa JC, et al**
Intensive lipid lowering with atorvastatin in patients with stable coronary disease.

the study --- funded by Lipitor's manufacturer, Pfizer
--- 5,000 people with coronary heart disease received high dose Lipitor daily = 80-mg
--- 5,000 people with coronary heart disease received low dose Lipitor daily = 10-mg
After 5-years......
--- people on high dose Lipitor = 8% experienced heart attack or stroke
--- people on low dose Lipitor = 10% experienced heart attack or stroke
--- 2% difference

Follow the money.......
--- high dose lipitor costs about $35 a month more than low dose
--- times about 5 million people
--- net gain for Pfizer = $2 billion for the 2% greater reduction in heart attacks and strokes

**Mind-Body medicine in stroke......**

"....daily music listening can improve auditory and verbal memory, focused attention, and mood as well as induce structural gray matter changes in the early post-stroke stage."

"Those in the music group were provided with portable CD players and recordings of their own favorite music in any musical genre."

"....those who regularly listened to music for the first 60 days after their stroke scored the highest of the three groups on tests of verbal memory and focused attention, and the lowest on depression and confusion."

"....the positive effects of music on stroke victims, ranging from decreased levels of depression and stress to increased neural plasticity evoked by environmental enrichment."

"...for those recovering from a stroke, listening to music isn't just a pleasant distraction; it's an activity with real therapeutic value."

T. Sarkamo, D Soto
Music listening after stroke: beneficial effects and potential neural mechanisms
Annals Of New York Academy Of Sciences.....April 2012
"Whilst recovering in hospital, stroke survivors spend the majority of their waking hours inactive and alone."

"Environmental enrichment...is an intervention which by design facilitates motor, sensory, social and cognitive activity. It has been shown to improve post stroke motor and cognitive function..."

"The overall aim of this pilot study was to test the feasibility of using environmental enrichment with stroke patients in a rehabilitation setting. The aim was to enrich the environment of stroke survivors in a rehabilitation ward and measure changes in their activity (physical, cognitive and social activity)."

"Individuals admitted to the general rehabilitation ward for rehabilitation following recent stroke between April and August 2009 and 2010 were screened for eligibility. All consenting stroke survivors who...were able to follow at least one step commands and were able to stand with the assistance of two people or better, were included in the study."

H.Janssen et al
Translating the use of an enriched environment poststroke from bench to bedside: Study design and protocol used to test the feasibility of environmental enrichment on stroke patients in rehabilitation.

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[Fred H. Gage, professor, Laboratory of Genetics, Salk Institute]
"...adult central nervous system...plasticity and adaptability to environmental stimulation that remains throughout the life of all mammals."

"Gage's lab showed that, contrary to accepted dogma, human beings are capable of growing new nerve cells throughout life. Small populations of immature nerve cells are found in the adult mammalian brain, a process called Neurogenesis."

"They showed that environmental enrichment and physical exercise can enhance the growth of new brain cells...that may be harnessed to repair the aged and damaged brain and spinal cord."

----------

Mind-body medicine is founded on the basic principle that the brain controls or influences the function of all cells in the body by direct connection to them via the nervous system, or via chemical interaction via release of hormones or substances called neuro-peptides. Hence the importance of and awareness of the existence of mind-body medicine. And the importance of utilizing mind-body medicine and integrating into the practice of medicine in the United States.
Sudden Death In Well Trained Athletes: Cardio-Myopathy ----- 
A condition called Cardio-Myopathy has been responsible for the well publicized deaths of highly trained athletes, often times during competitions or training sessions in basketball, football, baseball, etc.. Cardio-myopathy occurs when a gene [troponin T, troponin I, alfa-tropomyosin, myosin binding protein-C, beta-myosin heavy chain (B-MHC), or myosin light chains] for a protein in the heart muscles, is mutated/damaged. The mutated gene provides the cells with in-accurate instructions of how to build critical portions of the heart muscle proteins. The cells build muscle structures that fail to function properly. This leads to a loss in the ability of the heart muscles to distend [stretch], and to contract [produce force]. The heart muscles subsequently grow large in size [muscle hypertrophy] to try to make-up for the lack of force production. Major problems with the heart's ability to pump blood to the brain/body result. One can have a test to screen for the defective gene(s). Eventually, gene therapy will likely provide cure.

Heart Disease And What’s Wrong With Traditional Medicine ----- 
The average doctor of traditional medicine [practicing defensive medicine fearing a mal-practice lawsuit], will run down the low cholesterol diet route, and sprint down the drug prescription route, often leaving patients to feel that bland food, liver destroying drugs, and perhaps well over-done heart by-pass surgery, are 100 percent necessary, are the only options available, or are the "best" options available [based on traditional medicine's...tragedy vs. benefit...ratio].

The most popular "quick fixes" are cholesterol lowering drugs, blood pressure lowering drugs, and heart by-pass surgery, and Angio-plasty. There are some portions of the country where over 600,000 Heart by-pass and/or Angio-Plasty surgeries are done each year. By-pass surgery typically consists of taking a portion of a vein from one's leg and sewing [grafting] it onto the heart, to "by-pass" the area of artery that is blocked. Angio-plasty consists of putting a small "balloon" into the artery and inflating it to expand the area that has been blocked. These are excellent......for emergencies......where it is found that a Heart Attack is most likely inevitable. Unfortunately, the number of these surgeries over the last 10 years, has escalated well beyond what can be called an epidemic, where obviously the term "emergency" has suffered a liberalized change in definition. The major long term problem with these surgeries is that the new vessel eventually re-clogs, since this surgery does not address the mechanisms of causation of the original clogged artery.

Reality Of Heart Disease ----- 
If you won't/don't engage in high intensity exercise and/or take in anti-oxidants, if you are over the age of 25, you have some form and level of heart disease today....without exception. The most accurate manner to monitor heart disease is through the latest body scanners, which can pick-up and provide pictures of even small cholesterol deposits or inflamed blood vessels in their early stages.

........................................................................

"The National Cholesterol Education Program diet failed to lower LDL cholesterol levels in men or women with high risk lipoprotein levels who did not engage in aerobic exercise."

........................................................................

".....a study of U.S. male physicians suggest that habitual vigorous exercise diminishes the risk of sudden death during vigorous exertion."

C.M.Albert, et.al.
Triggering Of Sudden Death From Cardiac Causes By Vigorous Exertion
New England Journal Of Medicine.....Volume 343# #19.....2000....pg.1355
........................................................................

"Exercise training-induced improvements in intrinsic cardiac contractile function in normal hearts have been well established. When instituted after myocardial infarction, exercise training has also been shown to exert beneficial effects on cardiovascular function in both humans and animals."

".....a program of high-intensity sprint training instituted shortly after myocardial infarction was effective...."

L.Zhang, et.al.
Sprint Training Restores Normal Contractility In Postinfarction Rat Myocytes
Journal Of Applied Physiology.....Volume 89.....2000....page 1099
........................................................................

".....exercise intensity was associated with reduced....heart disease...."

".....intensity of walking is more important than time spent."

".....greater risk reduction can be obtained with more intense exercise."

".....there is increasing evidence for the beneficial effects of strength training on coronary heart disease...."

".....increasing intensity of aerobic exercise......and adding weight training to the exercise program are among the most effective strategies to reduce the risk of coronary heart disease...."

M. Tanasecu, et.al.
Exercise Type And Intensity In Relation To Coronary Heart Disease In Men
Journal Of The American Medical Association.....October 23/30, 2002.....Volume 288 #16....page 2000
........................................................................

"Elevated concentations of total homocysteine predict an increased risk of cardiovascular disease."

"Coffee, but not caffeine, affects homocysteine...."

"Consumption of unfiltered or filtered coffee raises total homocysteine concentrations...."

"The responsible compound, however, is unknown."

P.Verhoef, et al.
Contribution of Caffeine To The Homocysteine-Raising Effect Of Coffee: A Randomized Controlled Trial In Humans
American Journal Of Clinical Nutrition.....Volume 76.....2002....page 1244 - 1248
Peripheral [arms or legs] arterial disease affects approximately 8 million to 10 million people in the United States."

"Claudication, defined as walking-induced pain in one or both legs...."

"Many affected patients are so de-conditioned from lack of exercise that they become housebound or dependent upon others."

"......exercise training improved pain-free walking time in patients with claudication by an average of 180 percent and improved maximal walking time by an average of 120 percent."

"The greatest improvements in walking ability occurred when......the patient walked until near-maximal pain was reached, and when the program lasted six months or more."

"....exercise-induced increases in maximal walking ability exceeded those attained with medication...."

K.J. Stewart, et al
New England Journal of Medicine......Volume 347 #24.....December 12, 2002......page 1941
fish oil & blood vessel repair

definitions.....
-- endothelial cells = cells that repair or produce blood vessels
-- endothelial progenitor cells = cells that produce/become endothelial cells

"Emerging cellular markers of endothelial damage and repair include endothelial microparticles (EMPs) and endothelial progenitor cells (EPCs), respectively.

"A total of 84 subjects with moderate risk of Cardiovascular Disease completed a randomized, double-blind, placebo-controlled, 8-week crossover trial of fish-oil supplementation that provided 1.5 grams per day."

"....there was a significant effect of fish-oil supplementation on cellular markers of endothelial function. Fish-oil supplementation increased numbers of endothelial progenitor cells and reduced numbers of endothelial microparticles relative to those with placebo treatment, which potentially favored the maintenance of endothelial integrity. There was no influence of genotype for any cellular markers of endothelial function, which indicated that effects of fish-oil supplementation were independent of eNOS genotype."

Szu-Yun Wu, et al.
Fish-oil supplementation alters numbers of circulating endothelial progenitor cells and microparticles independently of eNOS genotype
American Journal Of Clinical Nutrition......volume 100 #5....November 2014....page 1232 - 1243
[one of several reasons why "weekly long runs" are --not-- superior to high intensity short stuff for building blood vessels in distance runners. And this is among the reasons why there are no "weekly long runs" in TheETG training program]

".....endothelial progenitor cells contribute to vascular repair process by differentiating into endothelial cells. This study investigates how high-intensity interval and moderate-intensity continuous exercise training affect circulating endothelial progenitor cell levels and endothelial progenitor cells functionality....."

"60 healthy sedentary males were randomized to engage in either HIT (3-minute intervals at 40 and 80 % VO2max for five repetitions) or MCT (sustained 60% VO2max) for 30 min/day, 5 days/week for 6 weeks, or to a control group that did not received exercise intervention."

"High intensity interval training is superior...."

"Moreover, high intensity interval training effectively enhances endothelial progenitor cell functionality and suppresses endothelial injury....."

Hsing-Hua Tsai, et al
High-intensity Interval training enhances mobilization/functionality of endothelial progenitor cells and depressed shedding of vascular endothelial cells undergoing hypoxia
European Journal of Applied Physiology -- Volume 116 #11 --December 2016 -- page 2375
Below is an example of the mud hole that exists in the nutrition supplement industry. This study on one nutrient could apply to quite a few supplements for other nutrients.

Skimp and price shop among brand names......at your peril.

"Fourteen brands of resveratrol-containing nutraceuticals were evaluated in order to verify their actual resveratrol content and to control if their health-promoting properties are related to manufacturing quality."

"...results were compared with the content declared on-label."

"Only five out of 14 brands had near label values.....four products were slightly out of this range and three were in the 8 - 64% range."

"Two samples were below the limit of detection."

"The greater the difference between actual and labeled resveratrol content, the lower was the antioxidant and antiproliferative activity strength."

"Great differences currently exist among resveratrol food supplements commercially available and.....quality should not be taken for granted."

D.Rossi, et al
trans-Resveratrol in nutraceuticals: issues in retail quality and effectiveness
Molecules....Volume 17 #10....October 22, 2012....page 12393 - 12405

"634 non-hormonal nutritional supplements were purchased in 13 countries from 215 different suppliers...."

"Out of the 634 samples.....94 contained anabolic androgenic steroids not declared on the label."

".....all positive supplements were from companies located in only five countries: the USA [18.8%], the Netherlands, the UK, Italy, and Germany."

"Testosterone was found in 10.6% of the positive nutritional supplements."

" 9.6 % of the supplements from companies not selling prohormones were positive. The positive supplements showed anabolic androgenic steroid concentrations....."

H.Geyer, et al
Analysis of Non-Hormonal Nutritional Supplements For Anabolic-Androgenic Steroids --- Results of An International Study
N-acetyl-cysteine and L-carnitine... shown to address the front end, back end, and middle of beta amyloid plaques in Alzheimer’s and cholesterol plaques in heart disease.

-- On the front end the interfere with production of beta amyloid and cholesterol plaques.
-- On the back end they lower the toxicity and other issues caused by beta amyloid and cholesterol plaques.
-- And in the middle they contribute to the destruction of already existing beta amyloid and cholesterol plaques.

Studies and clinical trials are underway to expand on the information shown below....

"The main component of the characteristic amyloid plaques in brains of Alzheimer's patients are Abeta peptides, derivatives of the amyloid precursor protein APP."

"APP......increased secretion of neurotoxic Abeta peptides..."

"We report here......N-Acetyl-L-Cystein downregulates APP gene transcription...."

"These results open up new possibilities for the development of therapeutic agents that intervene at the transcriptional level."

R. Studer, et al
N-Acetyl-L-Cystein downregulates beta-amyloid precursor protein gene transcription in human neuroblastoma cells
Biogerontology...Volume 2 #1...2001....page 55 – 60

"Acetyl-l-carnitine [500 mg, twice daily] exhibits to help prevent the formation of brain tangles that are the hallmark of Alzheimer's disease."

"Although tau proteins are a normal part of nerve cell construction, they can accumulate in a hyperactive fashion that results in cognitive decline and memory loss. Acetyl-l carnitine helps tau proteins behave normally by intervening at the gene and molecular level so preventing dementia/memory decline."

"Supplementation of acetyl-L-carnitine also suppressed the phosphorylation of beta-amyloid precursor proteins, which may underlie the reduction of beta amyloid.

P Zhou
Acetyl-L-carnitine attenuates homocysteine-induced Alzheimer-like histopathological and behavioral abnormalities
Rejuvenation Research...Volume 14 #6......December 2011....page 669 - 679
Traditional medicine’s quackery
[another example of what that looks like]......
The main studies practitioners of traditional medicine base their use of Lipitor for stroke patients.....

P.Amarenco, et al
High-dose atorvastatin after stroke or transient ischemic hepatic

--- the study was funded by Pfizer......owner of Lipitor
--- the lead researcher of the study received "consulting fees" from Pfizer, AstraZeneca, Novartis

The study......
--- 4731 patients who had a stroke
--- 80 mg of atorvastatin [Lipitor] per day......versus......placebo
--- patients were followed for 5 years

--- Lipitor.......11% had a stroke
--- placebo....13% had a stroke
--- 5-year reduction in risk of stroke = 2%

--- Lipitor.......55 patients had a hemorrhagic stroke
--- placebo.....33 patients had a hemorrhagic stroke
--- Lipitor increased incidence of hemorrhagic stroke

dead rate from any cause [not limited to strokes]
--- Lipitor = 216 deaths
--- placebo = 211 deaths
--- risk of death from any cause was lower in the placebo group

--- 5-year reduction in risk of heart attack by taking Lipitor = 3%

blood test showing increase in liver enzymes indicates liver being damaged
--- elevated liver enzyme values, more common in patients taking Lipitor
--- liver injuries occurred 5 times more frequently with Lipitor than placebo.

The take home message from this and other statin drug studies.....
--- Lipitor may reduce risk of stroke by 2%
--- it may increase risk of hemorrhagic stroke [hemorrhagic stroke = bleeding in the brain]
--- may damage the liver

--------------------------

study on Pravastin and stroke.......

H.D. White, et al
Pravastatin Therapy and the Risk of Stroke

--- Pravastin......versus......placebo
--- 9014 patients
--- followed for 6 years

--- 373 patients had a stroke
--- risk of stroke while taking placebo = 4%
--- risk of stroke while taking Pravastatin = 3%


fish oil --vs-- statin drug.....

large study about 7000 patients, Italy....published 2008
"Italian group for the study of the survival of Myocardial Infarction trial"

results................cardiovascular deaths
fish oil................deaths = 27%
statin placebo......deaths = 28%
fish oil placebo.....deaths = 29%
statin drug.........deaths = 29%

fish oil = 1 gram
statin = Crestor 10mg [rosuvastatin]
".....we find the dismissal of the Women's Health Initiative data surprising, considering that this study showed an adjusted increase of 48% in the risk of diabetes among women receiving statins."

R.F. Redberg, M.H. Katz
University of California at San Francisco
Reassessing Benefits and Risks of Statins

"For every dollar we spend on prescription drugs, we spend a dollar to fix the complication."
Dr. Mehmet Oz [Professor of Surgery, Columbia University]

"The reason why doctors are using all these statins is because they're told that's the right way to practice medicine......its not getting through to the doctors that their information is coming from the drug companies."
[Dr. John Abramson , Lecturer, Harvard University, Consultant U.S. Dept. Of Justice & FBI.....stated on the Dr. Oz Show May 13, 2011]

"....too many doctors and patients are making decisions without the benefit of latest research.......A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."
President Barack Obama...Speech to the American Medical Association [June 15, 2009]

fish oil --vs-- statin drug
large study about 7000 patients, Italy
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fish oil = 1 gram
statin = Crestor 10mg [rosuvastatin]
"This reinforces the idea that treating patients with heart failure takes more than just drugs," [Dr. Jose Gonzalez Juanatey, European Society of Cardiology]

Heartwire [by Sue Hughes, January 20, 2011] excerpts.....
A new Cochrane review has provoked controversy by concluding that there is not enough evidence to recommend the widespread use of statins in the primary prevention of heart disease
The authors of the new Cochrane meta-analysis, led by Dr Fiona Taylor (London School of Hygiene and Tropical Medicine, UK), issued a press release questioning the benefit of statins in primary prevention and suggesting that the previous data showing benefit may have been biased by industry-funded studies. This has led to headlines in many UK newspapers saying that the drugs are being overused and that millions of people are needlessly exposing themselves to potential side effects.

The Cochrane authors reviewed data from 14 trials involving 34,272 patients. Outcomes in patients given statins were compared with outcomes in patients given placebos or usual care.

Dr Shah Ebrahim [South Asia Network for Chronic Disease, New Delhi, India]
Ebrahim commented to heartwire: "If you look at the hard end points of all deaths and coronary deaths, the effects are consistent with both benefit and with the play of chance. But importantly, the absolute benefits are really rather small—1000 people have to be treated for one year to prevent one death. It is probably a real effect, but it means a lot of people have to be treated to gain this small benefit. As we don't know the harms, it seems wrong-minded to me to treat everyone with a statin."

"This current systematic review highlights the shortcomings in the published trials of statins for primary prevention. Selective reporting.......make the evidence impossible to disentangle without individual patient data."

"The reason why doctors are using all these statins is because they're told that's the right way to practice medicine."

"Out of 7000 cardiology recommendation guidelines, 11% are substantiated by clinical trials that you and I trust."

"This is made public but its not getting through to the doctors that their information is coming from the drug companies. The doctors have got to get with it...." [Dr. John Abramson , Lecturer, Harvard University, Consultant U.S. Dept. Of Justice & FBI.....stated on the Dr. Oz Show May 13, 2011]

"....too many doctors and patients are making decisions without the benefit of latest research.......A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence." President Barack Obama...Speech to the American Medical Association [June 15, 2009]
Vegetables and your genes........

"Shorter telomeres have been associated with poor health behaviors, age-related diseases, and early mortality."

"Telomere length is regulated by the enzyme telomerase, and is linked to exposure to proinflammatory cytokines and oxidative stress."

"In our recent randomized controlled trial, omega-3 polyunsaturated fatty acid supplementation lowered the concentration of serum proinflammatory cytokines. This study assessed whether omega-3 polyunsaturated fatty acid supplementation also affected leukocyte telomere length, telomerase, and oxidative stress."

"Supplementation significantly lowered oxidative stress...."

"....telomere length increased with decreasing omega-6 to omega-3 ratios..."

"The data suggest that lower omega-6 to omega-3 polyunsaturated fatty acid ratios can impact cell aging."

"The triad of inflammation, oxidative stress, and immune cell aging represents important pre-disease mechanisms that may be ameliorated through nutritional interventions. This translational research broadens our understanding of the potential impact of the omega-6 to omega-3 polyunsaturated fatty acid balance."

J. K. Kiecolt-Glasera, et al
Omega-3 fatty acids, oxidative stress, and leukocyte telomere length: A randomized controlled trial
Brain, Behavior, and Immunity.....Volume 28.....February 2013.....pages 16 – 24

Long term health wise, combining certain vegetables in a meal by themselves may be the most effective method of consumption. A combo of 4 vegetables may prove to be of the greatest benefit.....broccoli, tomato, cucumber, carrot.

"When tomatoes and broccoli are eaten together, we see an additive effect. We think it's because different bioactive compounds in each food work on different anti-cancer pathways..."

[John Erdman] [Professor of Food Science, University of Illinois]

Green leaf vegetables contain substances called iso-thio-cya-nates.

Green leaf vegetables contain one of the most important isothiocyanates, called Sul-for-a-phere.

These substances can activate specific genes in our cells. Those specific genes are for anti-oxidant enzymes and detoxifying enzymes, most of them referred to collectively as Phase 2 enzymes.

The substance has the ability to bind to the promoter area of anti-oxidant genes, causing production of anti-oxidant and detoxifying enzymes. This is believed to be among the main mechanisms by which certain vegetables have the ability to prevent cancer and heart disease.

Aside from supplying anti-oxidants in the vegetables themselves they have this ability to cause cells in our body to produce other anti-oxidants as well.

"Sulforaphane, one of the most important isothiocyanates in the human diet, present in cruciferous vegetables, is known to have chemopreventive activities in different tissues."

"The observed Sulforaphane-induced upregulation of phase II enzymes was accompanied by a significant increase in nuclear erythroid 2 p45-related factor 2 expression and correlated with a significant increase in total antioxidant capacity....."

M.Malaguti, et al
Sulforaphane treatment protects skeletal muscle against damage induced by exhaustive exercise in rats
Journal Of Applied Physiology.......Volume 107......August 2009......page1028
"Risk factors for cardiovascular disease, including high cholesterol, high homocysteine, hypertension and inflammation, increase the risk of dementia, including its most common form, Alzheimer's disease. High cholesterol is also associated with elevated ß-amyloid, the hallmark of Alzheimer's disease."

"Garlic, extracted and aged to form antioxidant-rich aged garlic extract (AGE or Kyolic), may help reduce the risk of these diseases."

"Inhibition of cholesterol, LDL oxidation, and platelet aggregation by AGE, inhibits arterial plaque formation."

"....compelling evidence supports the beneficial health effects attributed to AGE in helping prevent cardiovascular and cerebrovascular diseases and lowering the risk of dementia and Alzheimer's disease."

"In clinical and preclinical studies, AGE, an odorless form of garlic that is rich in bioavailable water-soluble organosulfur compound, and has a higher antioxidant activity than fresh garlic with none of its adverse effects, has been found to protect against a wide range of risk factors that are common to cardiovascular disease and dementia."

"....available evidence supports the potential benefits of garlic in the form of Kyolic AGE in helping to reduce risk factors for cardiovascular and cerebrovascular diseases and dementia, including Alzheimer's disease."

[from “Health Market Place”]

".....Journal Nutrition Research (1987, 7:139-49) showed that a liquid garlic extract made by Kyolic caused a 12 to 31% reduction in cholesterol levels in the majority of test subjects after 6 months. “

“The study showed that 73% of the subjects given the Kyolic garlic experienced a greater than 10% reduction in cholesterol, compared with only 17% of the subjects in the placebo group showing the same improvement.”


“In a study of 280 adults, German researchers reported that participants who took 900 mg of garlic powder a day had up to 18% less plaque in their arteries than those who took a placebo, or "dummy," powder. “

“Human patients fed a daily dose of Kyolic ("Aged Garlic Extract") over a 10-month study showed that "adhesion to fibrinogen was reduced by 30%-compared to placebo . . . and that . . . the beneficial effect of garlic preparations on lipids and blood pressure extends also to platelet function" (Journal of Cardiovascular Pharmacology [United States], 1998, 31[6]:904-8).”
"Bone marrow-derived endothelial progenitor cells are involved in vascular growth and repair."

"The objective of this study is to determine the influence of a single bout of Muscular endurance resistance exercise on circulating endothelial progenitor cells and related angiogenic factors."

"Short intense bouts of Muscular endurance resistance exercise can trigger increases in circulating endothelial progenitor cells and related angiogenic factors, potentially contributing to vascular adaptation and vasculoprotection."

M.Ross, et al
Exercise Increases Endothelial Progenitor Cells and Angiogenic Factors
Medicine & Science in Sports & Exercise...Volume 46 #1.....January 2014....page 16

"Low-volume high-intensity interval exercise training is effective in healthy populations however, its effectiveness in cardiac rehabilitation has not been established."

"This study compared the effects of 12-wk of high-intensity interval exercise training and higher-volume moderate-intensity endurance exercise....."

"Twenty-two patients with documented cardiovascular disease were randomized into high-intensity interval exercise training or higher-volume moderate-intensity endurance exercise......"

"Low-volume high-intensity interval exercise training provides an alternative to the current, more time-intensive prescription for cardiac rehabilitation. High-intensity interval exercise training elicited similar improvements in fitness.....despite differences in exercise duration and intensity."

K.Currie, et al
Volume, High-Intensity Interval Training in Patients with CAD
Medicine & Science in Sports & Exercise......Volume 45 #8......August 2013....page 1436

"Autonomic dysfunction including sympathetic activation and vagal withdrawal has been reported in patients with chronic heart failure. We tested the hypotheses that high-intensity interval exercise in chronic heart failure patients would enhance vagal modulation and thus decrease arrhythmic events."

"Eighteen chronic heart failure patients......"

"We demonstrate that a single session of high-intensity interval exercise improves autonomic profile of chronic heart failure patients, leading to significant reductions of HR and arrhythmic events in a 24-h posttraining period."

T.Guiraud, et al
High-Intensity Interval Exercise Improves Vagal Tone and Decreases Arrhythmias in Chronic Heart Failure
Medicine & Science in Sports & Exercise......Volume 45 #10......October 2013....page 1861

"The aim of this study was to compare the effects of time-efficient, low-volume interval exercises on cardiorespiratory capacity and left ventricular mass with traditional continuous exercise in sedentary adults."

".....8 weeks, five times per week, supervised exercise intervention. They were randomly assigned to one of three exercise protocols: sprint interval training (5 min), high-intensity interval aerobic training (13 min), and continuous aerobic training (40 min)."

"Our study revealed that V'O2max improvement with the high-intensity interval aerobic training was greater than with the continuous aerobic training despite the high-intensity interval aerobic training being performed with far lower volume and in far less time than the continuous aerobic training."

T.Matsuo, et al
Effects of a Low-Volume Aerobic-Type Interval Exercise on V'O2max and Cardiac Mass
Medicine & Science in Sports & Exercise...Volume 46 #1.....January 2014....page 42
A study has shown that fish oils are more effective than the statin drug Lipitor in positively affecting the levels of HDL ("good") cholesterol in obese and insulin-resistant men. HDL cholesterol protects against atherosclerosis by removing excess cholesterol from arterial cells, and low HDL levels can increase the risk of cardiovascular disease, particularly for those who are obese or insulin resistant.

But only fish oil also influenced HDL cholesterol by altering the production and catabolism rates of HDL apolipoproteins (catabolism is the breakdown of complex molecules metabolically into simpler ones). Lipitor did not increase this effect when combined with the fish oils, and did not produce a similar effect on its own.


Supplements - Can They Lower Cholesterol?

by Betsy Lee-Frye [About.com].....October 04, 2008

“…..a study published in 2005 in The Journal of the American Board of Family Practice found that those with a history of heart attack who took a supplement of 1.8 g of fish oil were 29% less likely to experience a cardiac event. The same study concluded that just one meal of fish a week could be "associated with a 52% reduction in sudden cardiac death."

“A meta-analysis of more than 70 studies found that fish oil was particularly beneficial for the treatment of high triglycerides, which are a type of cholesterol linked to a high risk of coronary heart disease. The studies analyzed in the meta-analysis found that high triglyceride levels could be lowered between 20 and 50% by taking 2 to 4 g of fish oil daily.”

[The Vitamin Foundation]
Nature's Perfect Statin

excerpts.....
The hot selling statins, such as Lipitor® and Zocor®, lower cholesterol by blocking the coenzyme HMG-CoA reductase.

....statins are the most widely prescribed class of drugs in history.

In 1985, scientists made an important discovery. Ascorbic acid (Vitamin C) is the human body's natural HMG-CoA reductase inhibitor.

When vitamin C levels are low, the body compensates and manufactures more cholesterol; when levels are high, the vitamin inhibits HMG-CoA reductase, lowering cholesterol.

Linus Pauling informed the world that vitamin C deficiency is the root cause of cardiovascular disease (CVD), and that taking more of the vitamin lowers cholesterol, and that when combined with lysine, effects the cure for CVD.

Rather than promote vitamin C, drug companies invented the statin drugs.
A.A. Qureshi, et al
Lowering of serum cholesterol in hypercholesterolemic humans by tocotrienols (palmvitee)

"Concentrations of serum total cholesterol, LDL cholesterol....decreased significantly only in the 15 subjects given palmvitee during the initial 4 wk.

Serum cholesterol concentrations of seven hypercholesterolemic subjects decreased 31% during a 4-wk period in which they were given 200mg gamma-tocotrienol.

This indicates that gamma-tocotrienol may be the most potent cholesterol inhibitor in palmvitee capsules.

Hsing-Yi Chang, et al
Effect of potassium-enriched salt on cardiovascular mortality and medical expenses of elderly men

"The beneficial effects of potassium-enriched salt on blood pressure have been reported in a few short-term trials. The long-term effects of potassium-enriched salt on cardiovascular mortality...."

"This study showed a long-term beneficial effect on Cardiovascular Disease mortality and medical expenditure associated with a switch from regular salt to potassium-enriched salt in a group of elderly veterans. The effect was likely due to a major increase in potassium and a moderate reduction in sodium intakes."
J.M. Hodgson, et al.
Partial substitution of carbohydrate intake with protein intake from lean red meat lowers blood pressure in hypertensive persons

"Within the context of other studies, these results suggest that modest substitution of carbohydrate-rich foods with protein-rich foods may lower blood pressure in hypertensive persons."

[MayoClinic.com]

Red yeast rice (Monascus purpureus)
Red yeast rice is the product of yeast (Monascus purpureus) grown on rice, and is served as a dietary staple in some Asian countries. It contains several compounds collectively known as monacolins, substances known to inhibit cholesterol synthesis.

Red yeast rice extract has been sold as a natural cholesterol-lowering agent in over the counter supplements......

Since the 1970s, human studies have reported that red yeast lowers blood levels of total cholesterol, low-density lipoprotein/LDL ("bad cholesterol", and triglyceride levels.

1,200 milligrams of concentrated red yeast powder capsules have been taken two times per day by mouth with food.

The average consumption of naturally occurring red yeast rice in Asia has been reported as 14-55 grams per day...
Similar to spinal cord healing...re-think what you think you know.
stroke recovery 2 decades later……

“Widespread bilateral activation of both sides of the cerebrum and cerebellum are demonstrated on functional MRI after motor recovery of a completely nonfunctional left hand that began 23 years after a severe stroke.”
“This suggests that the generally accepted window of recovery beyond which further therapy is not indicated should be entirely reconsidered.”

“Physiotherapy and new modalities in development might be indicated long after a stroke.”

“It is widely believed that most stroke recovery occurs within 6 mo, with little benefit of physiotherapy or other modalities beyond 1 yr.”

“We report a remarkable case of stroke recovery beginning 23 yr after a severe stroke due to embolization from the innominate artery and subclavian artery, resulting from compression of the right subclavian artery by a cervical rib. The patient had a large right frontoparietal infarction with severe left hemiparesis and a totally nonfunctional spastic left hand. He experienced some recovery of hand function that began 23 yr after the stroke, 1 yr after he took up regular swimming. As a result, intensive physiotherapy was initiated, with repetitive large muscle movement and a spring-loaded mechanical orthosis that provides resistance to finger flexors and supports finger extensors. Within 2 yr, he could pick up coins with the previously useless left hand.”

“Functional MRI studies document widespread distribution of the recovery in both hemispheres.”

“This case provides impetus not only to more intensive and prolonged physiotherapy, but also to treatment with emerging modalities such as stem cell therapy and exosome and microRNA therapies.”

P. Sörös, et al
Motor recovery beginning 23 years after ischemic stroke
Journal Of Neurophysiology — Volume 118 #2 — August 2017 — page 778

from the top of the homepage of TheETG website……..

Data-less conclusions founded upon faulty assumptions are the mother of all screw-ups. They lead to human belief systems that quickly get set in stone.
Put data ahead of dogma. Follow the data -not- the crowd.

“In God we trust…Everyone else must bring data.” —[W.Edwards Deming]
http://theetgtrackclub.com/selfcare

On the self-care page of TheETG website, please see the free pdf packet titled....

TheETG nutrition medicine ——

On the self-care page of TheETG website, please see the free pdf packet titled....

TheETG exercise program ——
So called "performance enhancing drugs" are prescription drugs.

Some examples of the effectiveness of prescription drugs in sport..........

"The drug erythropoietin, often called EPO......a new systemic review of existing research reveals that there is no scientific evidence that it does enhance performance, but there is evidence that using it in sport could place a user's health and life at risk."
EPO [erythropoietin] doping in elite cycling: No evidence of benefit, but risk of harm
Science Daily......December 5, 2012.

"...there is no scientific basis from which to conclude that rHuEPO has performance-enhancing properties in elite cyclists.""The use of rHuEPO in cycling is rife but scientifically unsupported by evidence, and its use in sports is medical malpractice."
J.A.Heuberger, et al
Erythropoietin doping in cycling: lack of evidence for efficacy and a negative risk-benefit.
British Journal Of Clinical Pharmacology......Volume 75 #6....June 2013...page 1406

"The over-exaggeration of the effects of growth hormone in muscle building is effectively promoting its abuse...."
"...there is the question of disinformation on rhGH....Part of this problem may, paradoxically, derive from the anti-doping authorities themselves. By ignoring the evidence the rhGH does not work in normal healthy subjects, the athletic establishment could be accused of effectively promoting its use."
"We must tell athletes the truth: growth hormone does not 'work' or at least not as they think it does and that its is associated with all kinds of immediate and long term hazards-----everything from decreased performance to cancer."
"...none of us scientists, doctors, coaches, or sports bodies should continue to suggest that this dangerous doping practice works."
M.J. Rennie
British Journal Of Sports Medicine.....Volume 37 #2....April 2003....pages 100-103

"Testosterone prohormones such as androstenedione, androstenediol, and dehydroepiandrosterone (DHEA) have been heavily marketed as testosterone-enhancing and muscle-building nutritional supplements for the past decade."
"Contrary to marketing claims, research to date indicates that the use of prohormone nutritional supplements (DHEA, androstenedione, androstenediol, and other steroid hormone supplements) does not produce either anabolic or ergogenic effects in men. Moreover, the use of prohormone nutritional supplements may raise the risk for negative health consequences."
G.A.Brown, et al
Testosterone Prohormone Supplements.
Medicine & Science in Sports & Exercise.....Volume 38 #8....August 2006.....pg 1367-1537

So called "performance enhancing drugs" are prescription drugs.

Some examples of the effectiveness of prescription drugs in American medicine & health care.........

"Most drugs are only effective for a small percentage of people who take them."
Michael Leavitt [U.S. Secretary of Health & Human Services 2005 - 2009]

"......the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."
Journal Of The American Medical Association...Volume 302 #1...July 1, 2009...page 89 - 91

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."
[Centers For Disease Control....2015]

"106,000 deaths/year from non-error, adverse effects of medications"
B. Starfield
Is US Health Really the Best in the World
Journal Of The American Medical Association.....Volume 284 #4.....July 26, 2000.....page 483 - 485

"......1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."
Nature Medicine.....Volume 12 #9.....September 2006.....pg 984 - 985.....News In Brief
Pursue becoming a Master Of Sport