Who Should Take Cholesterol-lowering Statins? Everyone or No One?

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An Independent Critique of Low-carb Diets: Cracking Down on Eggs and Cholesterol

by Travis

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This year marks the 100th year anniversary of when Nikolai Anichkov first used the rabbit model to show that the ingestion of dietary cholesterol alone is a primary cause of atherosclerosis. Since 1913 it has been demonstrated in thousands of animal experiments that the feeding of cholesterol, including in the form of fresh egg yolk accelerates the development of atherosclerosis in virtually every vertebrate species that has been sufficiently challenged. This includes mammalian, avian and fish species- herbivores, omnivores and carnivores, and over one dozen different species of nonhuman primates.

The experimental evidence showing that dietary cholesterol is a primary cause of atherosclerosis is so extensive that suggesting that it is somehow irrelevant to humans would require implying that the Darwinian foundation of biomedical research is invalid. Page 5

Angelina Jolie's Double Mastectomy - People Are Desperate for Change

I have no intention of criticizing the famous actress, Angelina Jolie, for her decision to have both breasts removed in an effort to improve her chances for a longer life. (National headlines on May 15, 2013.) I have treated nearly a thousand people with breast cancer over my 45-year career in medicine. From my experience, I can safely say that she has agonized over this decision. Her radical treatment may have helped her; time will possibly tell.* All we know for sure is that Ms. Jolie has made a great sacrifice *today* for a theoretical benefit in the *very distant future*—say one to five decades henceforth.

*If she develops breast cancer then we can assume this prophylactic treatment failed. If the cancer never appears there are two possibilities: one, she may never have been destined to grow, or die of, breast cancer—in this case a double mastectomy would not have been necessary. The other possibility is that the treatment saved her life. Neither disease-free outcome can be proven for her as an individual. Page 11

Featured Recipes

Nutty Soft Tacos
Dal
Artichoke Spread
Cannellini Bean Spread
Savory Lentil Spread
Mock Tuna Spread
Burrito Bowl
Nelson's Rye Bread
Bean and Corn One Dish Meal

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Statins Lower Cholesterol but Do Little for Better Health

In my practice over the past decade I have limited my prescriptions for cholesterol-lowering medications to people who are at high risk for future troubles. Unless there is a contraindication, I have recommended statins to patients with a history of heart surgery, heart disease, TIAs, or strokes, with a goal to take a dosage sufficient to lower their blood cholesterol levels to 150 mg/dL (4 mmol/L) or less. Furthermore, based on the recommendations of the highly respected Cochrane Collaboration and others, I have advised that otherwise healthy people, even those with high cholesterol, not take cholesterol-lowering statins. Of course, I have strongly recommended that everyone eat a healthy diet.

Statins effectively lower blood cholesterol by inhibiting an enzyme (HMG-CoA reductase) involved in the production of cholesterol in the liver. The cholesterol numbers, revealed by simple blood tests, are dramatically reduced with this commonly prescribed treatment. Unfortunately, the reduction in blood cholesterol translates into only very small improvements in the health of the arteries, as seen by tiny (but statistically significant) reductions in heart disease. These weak benefits can be appreciated in very sick people who are at high risk for future health problems. This strategy is called *secondary prevention*. They have already had a serious problem.

However, the benefits from statins are very difficult to demonstrate in healthy people because their risk of future troubles is very low, and remember I wrote, the real-life benefits from statins are very small. This strategy is called *primary prevention*. Nothing serious has happened, yet. Intervention is being recommended in hopes of preventing a serious event in the future.

There is an ongoing controversy as to whether or not statins should be more widely prescribed. The doctors and scientists working for pharmaceutical companies think they should be. But, consider the influence of money on their findings and opinions. Annually, $37 billion is spent on cholesterol-lowering medications worldwide.

My Recommendations for Statins Are Changing*

The most recent review (January 2013) by the Cochrane Collaboration has concluded that there is, "...strong evidence to support their use in people at low risk of cardiovascular disease." This is a reversal from their previous conclusions, which recommended against such treatment for people without a history of heart disease (for primary prevention). As a result, I am changing the way I present information to people on the use of statins. For practical purposes, choosing whether or not to take these kinds of medication should be based on an understanding of the actual benefits and risks as assessed by various experts. Currently, the data is based on the study of people who eat the Western diet. I believe the benefits will be found to be far less in people who consume a starch-based McDougall-type diet.

A recent analysis, published in the medical journal, the *Lancet,* by John Abramson, MD, a guest speaker at two previous McDougall Advanced Study weekends, summarizes the effects of statin therapy: "Our analysis suggests that lipid-lowering statins should not be prescribed for true primary prevention in women of any age or for men older than 69 years. High-risk men aged 30–69 years should be advised that about 50 patients need to be treated for 5 years to prevent one event. In our experience, many men presented with this evidence do not choose to take a statin, especially when informed of the potential benefits of lifestyle modification on cardiovascular risk and overall health."

John Abramson, MD, Author of Overdo$ed America
Recorded at the March 2013 McDougall Advanced Study Weekend

Cholesterol-lowering statin therapy is based on the observation that high cholesterol levels in a person's blood are associated with more heart attacks and stroke. **The organic substance cholesterol is found in large amounts all animal foods. When people eat meat, poultry, fish, eggs, and dairy products their blood cholesterol levels rise.** The rationale is that lowering these levels with medication will fix the problem. As discussed above, the real-life benefits have been minimal. Not surprisingly, this failure has led researchers to look into other mechanisms to explain how eating animal products and other unhealthy foods cause artery damage.

Here is another practical way of looking at the benefits and risks of statin therapy.

Benefits for those who took statins for 5 years:

Primary prevention (without known heart disease):

98% saw no benefit
0% were helped by being saved from death
1.6% were helped by preventing a heart attack
0.4% were helped by preventing a stroke

Secondary Prevention (with known heart disease):

96% saw no benefit
1.2% were helped by being saved from death
2.6% were helped by preventing a repeat heart attack
0.8% were helped by preventing a stroke

Side effects include: 0.6% to 1.5% were harmed by developing diabetes, 10% were harmed by muscle damage.

Antibiotics May Be the Next Blockbuster Drugs to Treat Heart Disease

In April of 2013, an article in *Nature Medicine* and one in the *New England Journal of Medicine* found that a diet of meat, dairy products, and eggs caused damage to the arteries by increasing the production of trimethylamine-N-oxide (TMAO). Carnitine and choline, found in these animal foods in high concentrations, are metabolized by gut microbes (bacteria) into trimethylamine (TMA), which in turn is absorbed into the bloodstream and then metabolized by the liver into TMAO. This organic compound has been shown to cause artery damage in animal experiments and is strongly associated with heart disease in people.

Meat, dairy products, eggs, and other animal foods favor the growth of bacteria that readily convert carnitine and choline to TMA. Vegans and vegetarians grow few of these kinds of bacteria and as a result produce very little artery-damaging TMAO. This research may lead to medical treatments, including the use of probiotics (bacteria supplied in pills and fermented foods), medications to limit the synthesis of trimethylamine from carnitine and choline, and/or antibiotics to suppress specific TMA-producing bacteria in the intestine. In all three pharmacologic approaches the medications would need to be taken for a lifetime. Great profits will be generated as a result, just like with statins.

Who Should Take Statins? A Starch-based Diet Is the Non-profit Solution

Starches, vegetables, and fruits are essentially cholesterol-free and discourage the growth of intestinal bacteria that lead to the synthesis of artery-damaging TMAO; and these foods contain very little carnitine and choline (the precursors of TMAO). Unarguably,—whether blaming cholesterol, carnitine, choline, or bad-bowel-bacteria—diseases of atherosclerosis (heart attacks, strokes, kidney failure, etc.) are due to consuming meat, dairy products, and eggs. Therefore I recommend the McDougall Diet to prevent and treat heart and other artery diseases. In other words, fix the problem.

Lack of profit is the primary reason for lack of acceptance of this simple, safe approach. Consider that the most popular brand name statin, Crestor, purchased at a discount pharmacy like Costco or CVS, costs about $6 a day. Comparatively, a starch-based diet costs $3 a day for all of the food (2500 calories). The rivers of profits from a drug-over-diet approach extends to the food and medical industries. (Generic statins are much less expensive.)

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Our research shows that the cholesterol-lowering benefits of the McDougall Diet are comparable to statins. We have analyzed the results of 1700 people who have been through the McDougall residential program in Santa Rosa. In seven days people starting with total cholesterol of 200 mg/dL or more experience a reduction of 34.2 mg/dL on average. If the starting number is 240 mg/dL or more, the average reduction is 42.1 mg/dL. (If LDL is initially 100 mg/dL or greater, the average reduction is 21.1 mg/dL; if 160 mg/dL or greater, the average reduction is 31.5 mg/dL.)

To answer the question, "Who Should Take Cholesterol-lowering Statins? Everyone or No One?" My response is slightly more complex than all or none. The decisions made primarily depend upon what a person chooses to eat. Eat meat, dairy products, eggs, and other unhealthy foods and you may benefit from taking statins (a little). Eat a starch-based McDougall Diet and any benefits from statins for an otherwise healthy person vanish, and all that is left are side effects and costs. However, as a medical doctor trained in traditional drug therapy, I want to take advantage of both worlds: diet and drugs. For most patients with serious existing disease, such as those with a history of heart surgery, heart disease, TIAs, or stroke, in addition to my diet I recommend sufficient cholesterol-lowering statin medications to lower their blood cholesterol to 150 mg/dL or less.

*I reserve my right to change my opinion on medications and surgeries because the foundations—the scientific research—for my recommendations are incomplete, inaccurate, and constantly changing. However, in case you are wondering, my advice on what you should eat (a starch-based diet) will not waiver because the scientific underpinnings are rock solid.

An Independent Critique of Low-carb Diets: Cracking Down on Eggs and Cholesterol

by Travis

In the September and October 2012, and February 2013 McDougall newsletters, I presented readers with articles addressing the dangers of low-carbohydrate diets, which are also popularly known as Paleo and Primal diets and as Atkins-type diets. Please take this opportunity to read these articles.

This year marks the 100th year anniversary of when Nikolai Anichkov first used the rabbit model to show that the ingestion of dietary cholesterol alone is a primary cause of atherosclerosis. Since 1913 it has been demonstrated in thousands of animal experiments that the feeding of cholesterol, including in the form of fresh egg yolk accelerates the development of atherosclerosis in virtually every vertebrate species that has been sufficiently challenged. This includes mammalian, avian and fish species- herbivores, omnivores and carnivores, and over one dozen different species of nonhuman primates.

The experimental evidence showing that dietary cholesterol is a primary cause of atherosclerosis is so extensive that suggesting that it is somehow irrelevant to humans would require implying that the Darwinian foundation of biomedical research is invalid. As this is not likely considered a plausible approach for promoters of cholesterol laden diets, particularly of Paleo and Primal type diets who emphasize the importance of evolution, they have instead resorted to simply ignoring a century of research and often inaccurately claiming that cholesterol feeding has only successfully accelerated atherosclerosis in obligate herbivores, such as rabbits. These promoters have also resorted to using scapegoats such as sugar to blame as a primary cause of atherosclerosis, while ignoring the evidence that the development of atherosclerosis can actually be reversed in animals, including nonhuman primates even when the great majority of the diet is composed of pure sugar when fed in the context of a cholesterol free diet.

This article provides an overview of the large body of evidence from both human and animal studies which has served as a basis for the recommendations to restrict the intake of dietary cholesterol and eggs, and outlines the unethical tactics that the egg industry have used to confuse the general population.

Since the breakthrough led by Nikolai Anichkov a century ago, the feeding of cholesterol, and to an extent, dietary fat have been recognized as the *sine qua nons* for the dietary modification of experimental atherosclerosis, and have been used in thousands of experiments to successfully accelerate the development of atherosclerosis in mammalian, avian and fish species, not only of her-

bivorous, but also omnivorous and carnivorous nature.[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] This includes the promotion of experimental atherosclerosis in over one dozen different species of nonhuman primates- New World monkeys, Old World monkeys, and great apes including the closest living relative to humans, the chimpanzee (Fig. 1).[2] [3] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] The atherosclerotic lesions induced by cholesterol feeding, including in the form of fresh eggs yolks in many opportunistic omnivores, such as various species of nonhuman primates, birds and pigs have been shown to closely resemble the disease in humans.[1] [2] [3] [4] [22] [23] [24]

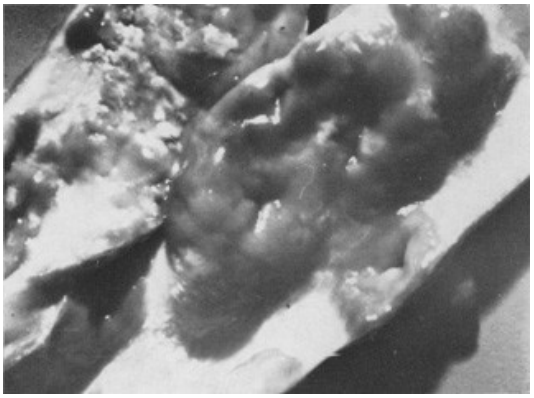


Figure 1. Aortic atherosclerosis of a chimpanzee which died of a heart attack after long-term feeding of a diet rich in cholesterol and artery-clogging saturated fat

It has also been observed that the long-term feeding of cholesterol and saturated fat has resulted in heart attacks, sudden death, development of gangrene, softening on the bones and numerous other serious complications in nonhuman primates.[2] [3] [25] [26] [27] [28] For example, it has been shown that when diets rich in cholesterol and saturated fat are fed to monkeys of the genus Macaca, including the rhesus monkey and the crab-eating macaque, they experience heart attacks at approximately the same rate as high-risk populations living in developed nations.[3]

In species that are unlike humans, very resistant to dietary induced elevations in LDL cholesterol, such as the order of the carnivora, unless LDL-receptor deficient breeds are used atherosclerosis is typically induced by raising serum (blood) cholesterol with a diet with very large amounts of dietary cholesterol, and either containing thiouracil or deficient in essential fatty acids.[9] [10] [29] As noted by Steinberg:[30]

> *The point is very clearly made: the arteries of virtually every animal species are susceptible to this disease if only the blood cholesterol level can be raised enough and maintained high enough a long enough period of time.*

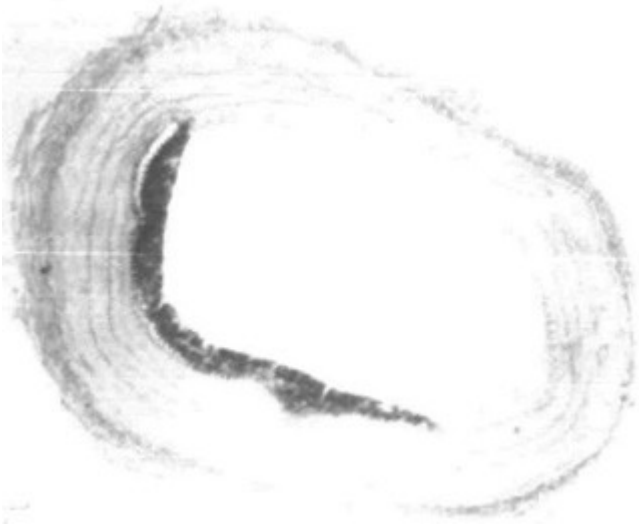


Figure 2. Subclavian artery from a rhesus monkey fed very small amounts of dietary cholesterol (43µg/kcal). Sudanophilia (black area) is intense in the area of major intimal thickening

It has also been demonstrated that the cessation of a cholesterol-rich diet and the subsequent lowering of serum cholesterol results in the regression of atherosclerosis in various mammalian and avian species, including herbivores, omnivores, carnivores and nonhuman primates.[31] In one experiment Armstrong and colleagues induced severe atherosclerosis in rhesus monkeys by feeding a diet with 40% of calories from egg yolks for 17 months. The egg yolks were then removed from the monkeys diet and replaced with a cholesterol-free diet with either 40% of calories from corn oil or low-fat chow with 77% calories from sugar for three years, resulting in a reduction of serum cholesterol to <140 mg/dl and a marked regression of atherosclerosis.[32] [33]

In a recently published study, Spence and colleagues observed that egg yolk consumption was associated with carotid plaque in high-risk patients.[34] These findings should not come as a surprise considering the evidence accumulated from thousands of animal experiments over the last 100 years, which have demonstrated that the feeding of cholesterol and saturated fat accelerates the development of atherosclerosis in virtually every vertebrate that has been sufficiently challenged. These lines of evidence have been neglected by the egg industry and promoters of cholesterol laden diets (ie. Paleo, Primal and low-carb) who have attempted to discredit this study without considering the relevant evidence. As noted by Stamler:[35]

To neglect this fact in a review about humans is to imply that the Darwinian foundation of biomedical research is

These findings from Spence and colleagues are not only supported by the findings from animal experiments, but also by numerous previous human studies that found a positive association between dietary cholesterol and the severity of atherosclerosis.[36] [37] [38] [39]

In the video below Dr. Michael Greger addresses the completely unethical measures that the egg industry resorted to in order to confuse the general public about these findings from Spence and colleagues, including attempts to bribe researchers.

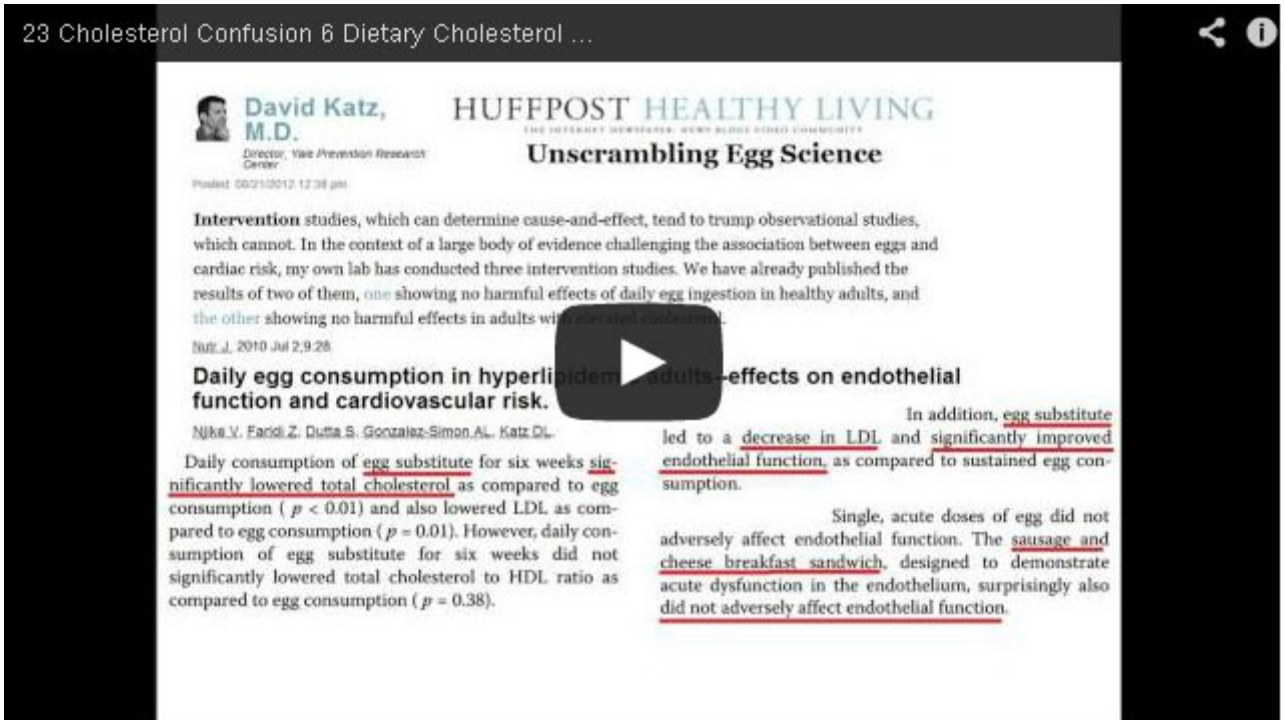
Eggs vs. Cigarettes in Atherosclerosis

In the video below Plant Positive addresses various critiques of Spence and colleagues findings, as well as other relevant research on dietary cholesterol.

Eggs, Cholesterol and Xanthomatosis

In addition to developing atherosclerosis and gangrene, the feeding of egg yolks and cholesterol to various species of nonhuman

primates has also resulted in the development of xanthomatosis, a condition where deposits of cholesterol develop underneath the skin and is associated with chronically elevated serum cholesterol.[18] [40] [41] [42] [43] This condition has been shown to be cured in nonhuman primates upon the cessation of a cholesterol-rich diet.[41] A case report found that a 30-year-old woman with a healthy body weight who had been following a carbohydrate restricted diet for three and a half years had developed xanthomas on her



Cholesterol Confusion 6 Dietary Cholesterol (And the Magic Egg)

hands and a chronically elevated serum cholesterol level of 940 mg/dl.[44] The composition of the woman's diet was reported as follows:

> *Each day she had consumed eight to 12 eggs, one or two lean steaks or half a small chicken and, half to one litre of milk. Sometimes some cottage cheese or tomatoes enriched the menu and, on rare occasions, fruit. She completely avoided butter, bread, potatoes, rice, noodles, alcohol, or any other food or beverage containing carbohydrate. The daily cholesterol intake, which was mainly derived from the egg yolks, was about 3500 mg. The total calorie intake was about 8-4 MJ (2000 kcal) (35 % protein, 55 % fat, and 10 % carbohydrates, polyunsaturated*

The woman was advised to change her diet, and in particular to stop eating eggs. After 16 days her serum cholesterol dropped to 750 mg/dl, and after several years dropped to 188 mg/dl and the lipid deposits on her skin had cleared up. This woman's diet induced xanthomas and chronically elevated cholesterol resemble the characteristics of people with homozygous familial hypercholesteromia, a rare genetic disorder that results in chronically elevated concentrations of predominantly large LDL cholesterol particles.[45] People with this disorder are short lived and often experience heart attacks during childhood.[46] Such unfavorable risk factors would normally be of great concern to any responsible physician. However, despite the overwhelming evidence of the danger of elevated serum total and LDL cholesterol,[30] [47] [48] including for women,[49] [50] Sally Fallon and Mary Enig, the founders of the Weston A. Price Foundation claim that 'For women, there is no greater risk for heart disease, even at levels as high as 1000 mg/d'.[51] It is clear that this organization has little concern for the wellbeing of people.

Eggs, Cholesterol and Serum Lipids

It has been well established in rigorously controlled feeding experiments that adding dietary cholesterol to a diet that is low in cholesterol can significantly raise serum cholesterol in humans.[52] An addition of 200 mg cholesterol per day to a cholesterol-free diet

has been shown to raise serum cholesterol by as much as 20%.[53] This may be largely explained by the strong evidence that dietary cholesterol down-regulates the LDL receptor.[54] However, as Hopkins addressed in a meta-analysis of rigorously controlled feeding experiments, there exists a ceiling effect at which adding additional dietary cholesterol to a diet already rich in cholesterol has little appreciable effect on serum cholesterol (Fig. 3). Therefore, the fact that numerous studies carried out on populations with a relatively high baseline cholesterol intake failed to find a significant association between cholesterol intake and serum cholesterol does not negate the evidence that lowering intake to near zero will significantly lower serum cholesterol.

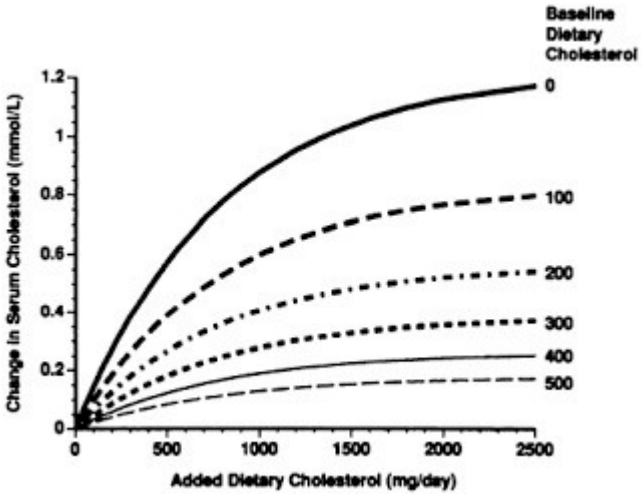


Figure 3. Effects of added dietary cholesterol on serum total cholesterol at different baseline levels of intake

Several controlled experiments have found that overweight compared to lean people, and insulin resistant compared to insulin sensitive people are less responsive to dietary cholesterol.[55] [56] This likely explains why researchers who have financial or personal connections with the egg industry have specifically selected overweight and insulin resistant participants with a modestly high baseline dietary cholesterol intake for controlled trials, as it can be pre-empted that this subgroup of the population will show little response when egg intake is increased.

It has been demonstrated in multiple meta-analyses of rigorously controlled feeding experiments that dietary cholesterol, including that from eggs yolks does have a modest adverse effect on the LDL:HDL cholesterol ratio.[57] [58] Furthermore, unlike for LDL cholesterol, there is limited causal evidence that simply raising HDL will lower the risk of coronary heart disease. For example, a meta-analysis of 108 randomized controlled trials found that while lowering LDL cholesterol significantly decreased the risk of coronary heart disease and all-cause mortality, modifying HDL had little appreciable effect after controlling for LDL cholesterol.[47] In addition, a recent meta-analysis of mendelian randomization studies found that while genetically modified LDL significantly influenced the risk of coronary heart disease, genetically modified HDL had little appreciable influence.[59] This evidence together with the evidence that dietary cholesterol adversely influences both concentrations of LDL as well as the LDL:HDL ratio, especially in healthy

> *Studies have linked large LDL particles to atherosclerosis in nonhuman primates, in patients with familial hypercholesterolemia (who have an elevated concentration of predominantly large LDL particles), in participants of the population-based MESA study, in normolipidemic men with CHD, and among patients after MI [heart attack] in the Cholesterol And Recurrent Events (CARE) study... Many studies document links between small dense LDL particles and atherosclerotic CVD. However, these statistical associations between small, dense LDL and CV [cardiovascular] outcomes are either significantly attenuated or abolished when the analyses are adjusted for the overall number of circulating LDL particles (LDL-P) either by adjustment for Apo B levels or by adjustment for nuclear magnetic resonance-derived LDL-P... To date, there is no evidence that the shift in LDL subfractions directly translates into*

people reinforces the recommendations to limit egg and cholesterol intake.

Another contributor to confusion caused by studies typically influenced by the egg industry is the suggestion that dietary cholesterol does not increase the number of LDL particles, or only increases the concentration of large LDL particles, which is considered by some to be less atherogenic. However, as elaborated by Plant Positive, several studies not influenced by the egg industry have found that cholesterol intake does increase the total number of LDL particles in healthy people.[60] [61] In addition, a systematic review found that higher LDL particle number, but not other LDL subfractions was consistently associated with an increased risk for cardiovascular disease, independent of other lipid measurements.[62] The National Lipid Association Expert Panel recently concluded that 'All lipoprotein particles in the LDL fraction are atherogenic, independent of size', and was unable to identify any patient subgroups in which LDL subfraction measurements are recommended. In specific, the panel provided the following evidence for these conclusions:[63]

More recently a meta-analysis of mendelian randomization studies with over 312,000 individuals found that inheriting any of nine studied genetic variants that modify lifelong LDL cholesterol concentrations, but not any other known risk factors predicted a 55% lower risk of coronary heart disease for each mmol/l (38.7 mg/dl) lower LDL cholesterol.[48] Despite having significantly different effects on LDL particle sizes, all of the nine studied genetic variants predicted essentially the same decrease in coronary heart disease per unit lower LDL cholesterol, including the gene responsible for familial hypercholesterolemia which elevates predominantly large LDL particles.[45] Therefore there is convincing evidence that large LDL particles promote atherosclerosis.

The elevation of LDL cholesterol is not the only adverse effect that increased intake of eggs and cholesterol confers. As Spence and colleagues also pointed out in regards to recent controversy surrounding dietary cholesterol:[40] [64]

> *Focusing on fasting serum cholesterol levels misses the bulk of the problem. Even though serum cholesterol rises very little after a meal, dietary cholesterol increases the susceptibility of LDL-C to oxidation, vascular inflammation, oxidative stress, and postprandial hyperlipemia and potentiates the harmful effects of saturated fat, impairs endothelial function, and increases cardiovascular events.*

Classical Observations

Multiple international studies based on data from the World Health Organization have found the mean per capita dietary cholesterol levels are consistently associated with the rates of coronary heart disease mortality.[39] [65] This includes a large study of 40 countries.[66] Similarly, it was found in the 25 year follow-up of the Seven Countries Study that dietary cholesterol was associated with a significantly increased risk of coronary heart disease across the 16 cohorts.[67]

In a review of the literature, Uffe Ravnskov, the spokesperson for The International Network of Cholesterol Skeptics reviewed 15 of the earliest prospective (longitudinal) cohort studies and inappropriately concluded that 'Overall, longitudinal studies within population have found no difference between the diet of coronary patients and others'.[68] Fourteen of these studies measured cholesterol intake, of which for the Chicago Western Electric Study Ravnskov inappropriately cited data from an earlier follow-up that found no association rather than the longer follow-up which found a significant association. Among the remaining thirteen studies, the participants who developed coronary heart disease actually had on average 13 mg/day greater intake of cholesterol for someone consuming on average 2,000 calories a day.

Considering the probable degree of measurement error dietary intake and the fact that these studies were carried out in largely homogenous populations where most people had similar diets, only relatively small differences in dietary composition would have been expected between participants with and without heart disease even if diet does play a major role in heart disease *[reviewed previously]*. Furthermore, Ravnskov failed to mention that four of the largest studies that he cited, including the Chicago Western Electric Study found on average that 200 mg/1,000 calories higher intake of cholesterol was associated with a 30% increased risk of coronary heart disease over and above the adverse effects it has on serum cholesterol.[64]

To learn more on this topic please visit my website and the Dr. McDougall archive on Heart Disease & Atherosclerosis.

Angelina Jolie's Double Mastectomy—People Are Desperate for Change

I have no intention of criticizing the famous actress, Angelina Jolie, for her decision to have both breasts removed in an effort to improve her chances for a longer life. (National headlines on May 15, 2013.) I have treated nearly a thousand people with breast cancer over my 45-year career in medicine. From my experience, I can safely say that she has agonized over this decision. Her radical treatment may have helped her; time will possibly tell.* All we know for sure is that Ms. Jolie has made a great sacrifice *today* for a theoretical benefit in the *very distant future*—say one to five decades henceforth.

*If she develops breast cancer then we can assume this prophylactic treatment failed. If the cancer never appears there are two possibilities: one, she may never have been destined to grow, or die of, breast cancer—in this case a double mastectomy would not have been necessary. The other possibility is that the treatment saved her life. Neither disease-free outcome can be proven for her as an individual.

Some important lessons can be learned from her story:

1) Women (and men) are willing to make almost any sacrifice to avoid premature death and suffering. This tells me that the effort required to eat a better diet is no real obstacle. Switching from braised beefsteak to Mary's Tunisian Stew (found in *The Starch Solution*) is no sacrifice at all—especially when compared to a double mastectomy. Breast, prostate, and colon cancer are due to an unhealthy diet—and so are type-2 diabetes, obesity, and coronary heart disease. Unfortunately, few people are given the information needed to take advantage of a simple, cost-free, dietary solution.

2) Profit drives health messages. One woman's double mastectomy generates more than $50,000 in medical business. Dietary change cuts the food bill in half. People do not save themselves with a healthy diet because no doctors are prescribing it, no hospitals are serving it, and no Fortune 500 companies are selling it.

3) Left unchecked by a few honest doctors, scientists, and politicians, profiteering would lead to medical recommendations to cut a smoker's risk of lung cancer in half by having one lung prophylactically removed (rather than cost-free smoking cessation). Prostate cancer occurs in nearly 100 percent of men by age 80 years. So why not recommend total prostate removal on every man's thirtieth birthday?

4) Sexism is rampant in the medical businesses. Conservative treatment (including a "doing nothing approach" called "watchful waiting") has been a standard recommendation for men with prostate cancer for more than 20 years. Mutilation, has been, and still is, universally recommended for women, even with the slightest hint of pre-cancer of the breast (DCIS). Even those women fortunate enough to avoid breast amputation (a mastectomy), are universally harmed. They are all persuaded into receiving breast, lung, and heart damaging radiation, when a simple (in most cases non-deforming) lumpectomy alone would suffice (even for women with invasive breast cancer).

5) Celebrities have great influence. Ms. Jolie's experience may cause many women to choose radical surgical treatments, but President Bill Clinton's experience with reversing his poor health (and heart disease) by changing his diet sent millions more people towards a very conservative course. We need more positive examples.

6) Shining light on a subject will reveal the truth. With mastectomy back in the headlines, stories should again be told about how more than sixty years of medical research has unarguably shown no survival benefits of mastectomy or lumpectomy with radiation,

over a simple removal of the lump. As a result of this science more than 18 states in the US have "informed consent laws" that force physicians to tell women facing breast cancer tests and treatments the facts about the failure (and benefits) of breast cancer treatments. In the state of Hawaii where I helped get the 3rd informed consent law passed in the US, women have also been told by state law since 1982 that they need to change their diet.

I applaud Ms. Jolie for making her story public. I do hope her life has been prolonged by this radical surgery. I would, however, discourage this approach for my patients, because I believe the harms far outweigh the benefits. Irrespective of any decisions about mastectomy, or any other medically prescribed treatments, all women and men need to have the opportunity to benefit from a starch-based diet. In 1984, I performed the first study ever published in a medical journal showing the benefits of a healthy diet for women with breast cancer (the McDougall Diet). Since then, dozens of other scientific papers have come to similar conclusions. Yet, doctors rarely mention the importance of food, as they send their patients off to therapies that they (in fact) know will have disastrous consequences.

For better understanding and scientific support read *The McDougall Program for Women* and *McDougall's Medicine - A Challenging Second Opinion* (found in libraries and downloadable from my web store-www.drmcdougall.com). Also see my Hot Topics on breast, prostate, and colon cancer (www.drmcdougall.com).

Featured Recipes

Simple Summer Sandwich Spreads
By Heather McDougall

Summer is here! School is almost over for my boys and I don't know about you, but things get really busy around here then. We are always on the go, or hanging out at the pool, so lots of time in the kitchen is not an option for me. So, during the summer, I tend to make lots of dishes that can either be made ahead and reheated, or served cold. This way, I can get everything ready when I have a moment, and serve when it's time to eat. This month, I have decided to bring back past recipes that have served me well. Some of these recipes I have been eating since I was a child. I think that spreads are very fitting for the beginning of summer. These can all be made ahead and turned into sandwiches or wraps when hunger strikes. Use bread, tortillas, lettuce leaves or crackers to hold your spreads and add a healthy variety of toppings as desired.

Nutty Soft Tacos

My mom, Mary, has been making these tacos for our family for over 25 years. This recipe makes enough for dinner and leftovers for a couple of lunches. The filling may also be frozen for later use. We consider this a richer food because of the nuts used, so I usually only make it once or twice a year, during the summer months. Toppings for the tacos may be varied according to your tastes.

Preparation Time: 15 minutes
Cooking Time: 15 minutes
Servings: makes about 3 cups

Filling:
¾ cup roasted unsalted peanuts
½ cup raw sunflower seeds
½ cup roasted sunflower seeds
½ cup sesame seeds
1 teaspoon cumin seeds

½ to 1 cup water
1 6 ounce can tomato paste
soft corn tortillas

Toppings:
chopped green onions
chopped tomatoes
shredded lettuce
alfalfa sprouts
salsa

Place the peanuts and raw sunflower seeds in a saucepan with water to cover. Cover and cook for 15 minutes. Drain off remaining water and reserve. Place the cooked peanuts and sunflower seeds in a food processor. Add the roasted sunflower seeds, the sesame seeds, the cumin seeds and about ½ cup of the reserved cooking water. (Add more water if necessary to reach ½ cup.) Process until blended. Add the tomato paste and process until well blended. Add more water, a small amount at a time, until mixture is a spreadable consistency. Serve warm or cold. Place a line of the filling down the center of the tortilla, layer on the toppings and salsa of your choice, roll up and eat.

Hints: Store unused nuts and seeds in the freezer so they don't spoil.

Dal

This simple, economical spread of split peas or mung beans has been one of our favorites for more than thirty years.

Preparation Time: 2 minutes
Cooking Time: 1 hour
Resting Time: 15 minutes
Servings: 8-10

2 cups split mung beans, chana dal or yellow split peas
5 cups water
1 ½ tablespoons curry powder (sweet, mild or spicy)
Salt to taste

Place the beans or peas and the water in a medium pot. Bring to a boil, reduce heat, cover and simmer for 30 minutes. Add the curry powder, mix well and cook uncovered for 30 minutes longer. Transfer to a serving bowl and let rest for about 15 minutes, to thicken slightly, before serving.

Hints: Serve rolled up in a corn or flour tortilla with toppings of your choice. My Dad and I like them topped with some Sriracha sauce, while my Mom just rolls them up and eats them plain. Or try this Dal over baked potatoes or rice. It also makes a delicious sandwich spread when cold.

Artichoke Spread

This is delicious as a spread for sandwiches, as a dip for crackers or veggies, or stuffed into pita and topped with chopped tomatoes, cucumbers and sprouts.

Preparation Time: 10 minutes
Servings: Makes about 3 cups

2 14-ounce cans artichoke hearts in water, drained and rinsed
1 15-ounce can white beans, drained and rinsed
4 tablespoons lemon juice
2 cloves garlic, crushed
4 green onions, chopped
1 tablespoon soy sauce
? teaspoon cayenne pepper

Combine all ingredients in a food processor and process until smooth.

Hint: 2 packages of thawed frozen artichoke hearts may be used instead of the canned, if desired.

Cannellini Bean Spread
By Chef Kevin Dunn, for the Celebrity Chef Weekend, June 2009

Many of Chef Kevin's gourmet recipes involve several steps and quite a bit of preparation time. This one is quick and easy and tastes wonderful! Keep it in the refrigerator and use it as a sandwich spread all week.

Preparation Time: 15 minutes (prepare 1 day early to allow flavors to blend)
Roasting time: 1 hour, 15 minutes
Servings: makes 4 cups

4 cups canned cannellini beans, drained and well rinsed
½ cup vegetable stock
1 tablespoon fresh rosemary, chopped
2 tablespoons roasted garlic (see hints below)
1 ounce balsamic vinegar
3 shallots, roasted un-skinned until tender (see hints below)
½ cup roasted red bell pepper, finely chopped
salt and pepper to taste

Place 3 cups of the beans in a food processor with the vegetable stock, rosemary, roasted garlic, balsamic vinegar and roasted shallots. Process until smooth. Add the remaining beans and the roasted bell pepper and process briefly. Place in a bowl and season with salt and pepper. Refrigerate for at least one day to allow flavors to blend. Warm gently and spread on bruschetta, topped with diced tomatoes and slivered basil, for a special presentation.

Hints: To roast shallots, wrap them in parchment paper, then wrap in foil, roast in an oven at 400 degrees until tender, then cut off the ends and squeeze out the inside. To roast garlic, place the whole unpeeled head in a baking dish, add a small amount of vegetable stock, cover the dish with foil, and roast at 400 degrees for 1 hour and 15 minutes. Allow to cool slightly, then cut off the top of each head, invert the garlic and just press out the insides into a bowl. The roasted garlic will keep in the refrigerator for about a week.

Savory Lentil Spread
Preparation Time: 15 minutes
Cooking Time: 45 minutes
Servings: makes about 4 cups

4 cups water
1 cup uncooked brown lentils
½ cup vegetable broth
1 onion, chopped
1 teaspoon minced garlic
½ pound fresh mushrooms, sliced
1 ½ teaspoons basil
1 ½ teaspoons marjoram
1 teaspoon rubbed sage
1 teaspoon rosemary
1 teaspoon thyme
1 teaspoon dry mustard
¼ teaspoon black pepper
¼ teaspoon allspice
¼ teaspoon ground ginger
¼ teaspoon cayenne
2 tablespoons soy sauce
1 tablespoon sherry

Place water and lentils in a saucepan and cook, covered, until lentils are tender, about 45 minutes. Drain and set aside.

Meanwhile, place the vegetable broth, onions and garlic in a non-stick pan. Cook and stir occasionally for about 5 minutes, until onions are soft. Add mushrooms and cook 5 minutes more. Add herbs and spices, cook and stir another 10 minutes, adding a bit more vegetable broth if needed. Add cooked lentils, soy sauce and sherry. Cook and stir until liquid is absorbed and mixture starts to stick to the bottom of the pot.

Place in a food processor and process until fairly smooth.

Serve warm or cold as a spread for bread or crackers.

Mock Tuna Spread

This is a favorite with my boys. They like it just spread on bread and eaten open-faced.

Servings: 2 cups
Preparation Time: 15 minutes
Cooking Time: 1 hour

1 15-ounce can garbanzo beans, drained and rinsed
1 stalk celery, finely chopped
¼ cup finely chopped onion
¼ cup finely chopped green onion
1 tablespoon lemon juice
¼ cup fat-free mayonnaise or Tofu Mayonnaise (see hint below)

Place the beans in a food processor and process until coarsely chopped or mash with a bean masher. Don't over process to a smooth consistency.

Place in a bowl and add the remaining ingredients. Mix well.

Chill at least 1 hour to blend the flavors. Serve as a sandwich spread, rolled up in a tortilla, or stuffed into pita, topped with your favorite summer veggies.

Hint: This newsletter has many versions of Tofu Mayonnaise in past issues or there is also a recipe in *The Starch Solution* book. Naysoya Nayonaise also makes a low fat mayonnaise from tofu.

More Summer Recipes

By Mary McDougall

I am always looking for easy recipes for summer, too. No one seems to spend as much time in the kitchen in the summer as they do in the winter. Could be they would rather be outside enjoying the nice weather? I still don't stray too far from John and my favorite meals though: beans and rice. I just top them with more fresh garden veggies, depending on what is available in my garden or at the market.

Burrito Bowl

This is our latest favorite meal. I vary the beans used several times a week, and also the veggies and salsa, so the meal is different every time I serve it. I serve this in 8 inch round "pasta" bowls so there is plenty of room for all of the ingredients and we often eat this outside on our deck making it a one dish meal.

Preparation Time: 15 minutes
Cooking Time: varies, depending on how you cook your grains and beans
Servings: 2-4

Baked tortilla chips (see hints below)
2-4 cups cooked grains (see hits below)
2-4 cups cooked beans (see hints below)
chopped romaine lettuce or steamed kale
chopped tomatoes
chopped green onions
1-2 cups corn kernels (see hints below)
1 avocado, chopped
fresh salsa

To assemble bowls: Take a handful of the chips and break into pieces in the bottom of the bowl. Spoon some of the cooked grains over the chips, then top with some of the beans and layer on the rest of the toppings; lettuce or kale, tomatoes, onions, and avocado. Top with as much salsa as you like. Eat warm or cold.

Hints: The grains can be any of your favorites, rice, quinoa, buckwheat, etc. Either cook them from scratch, or use frozen grains and microwave them, or use instant whole grains and cook for only a few minutes. Use either canned beans (they come in many varieties), or slow-cooked beans (less heat in your kitchen in the summer and less time over the stove). You can eat them either warm or cold. If you have leftover grains and beans in your refrigerator, this can be a really fast meal. I usually use frozen organic corn kernels, thawed under cold running water until tender, and then drained well. Read labels carefully to find baked chips without added fat, or make your own chips from soft corn tortillas. Cut them into wedges, spritz with water and bake at 300 degrees until crispy.

Nelson's Rye Bread

This recipe was developed by my brother-in-law, Nelson Van Elderen, based on a favorite Dutch treat, Roggebrood, that my parents ate throughout their lives. This Dutch rye bread is very moist and usually eaten in very thin slices, either topped with one of the spreads listed above, or plain. It is usually served chilled.

Preparation Time: 15 minutes
Cooking Time: 70 minutes
Servings: makes 1 loaf

3 cups cracked rye meal
1 cup whole wheat flour
½ cup dark molasses
2 ½ cups hot water
1 teaspoon salt

Preheat oven to 325 degrees.

Mix all the ingredients together in a bowl. Pour the batter into a loaf pan, cover with a piece of parchment paper and then cover with aluminum foil. Bake for about 70 minutes, until the bread is still moist on top, but not "jiggly". This may take longer depending on where you live or the temperature of your oven. The bread does not rise like a regular loaf of bread, and it is stored in the refrigerator so it is still quite moist when served.

Hints: If you bake this in a glass loaf pan you will need to *lightly oil* and flour the bottom of your pan before adding the batter. If you have a silicone loaf pan you will not need to do this, but your baking time will most likely be only 60 minutes.

Bean and Corn One Dish Meal

This last recipe is by Carol Fitzgerald and it is one you can watch on YouTube. Here is the link and I hope you enjoy this as much as I did. http://www.youtube.com/watch?feature=player_embedded&v=cD3YGAkej9s

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