A Scientific Critique of the 2010 Dietary Guidelines Advisory Committee's Report for the Dietary Guidelines for Americans

This article was introduced in the June 2010 newsletter.

Conflicting recommendations for plant-food vs. animal-food consumption dominate the 2010 Dietary Guidelines Advisory Committee's recent report, meaning that real solutions for obese and sick Americans will, unfortunately, not be forthcoming. Except for a few hopeful sentences, the committee presents a report filled with fear mongering, doubletalk, omissions of major topics, consistently biased views of the scientific literature, and inexcusable factual errors that favor the livestock industries.

I believe the members of the Dietary Guidelines Advisory Committee know the truth about the role that animal products play in causing the vast majority of chronic diseases that afflict Americans today (heart disease, type-2 diabetes, obesity, osteoporosis, and breast, colon, and prostate cancer, all of which are mentioned in their report). I believe they also know the solution to the health problems Americans face since they recommend taking steps to "Shift food intake pattern to a more plant-based diet that emphasizes vegetables, cooked dry beans and peas, fruits, whole grains, nuts, and seeds." They should have stopped right there, but they didn't. Instead they continued on with the following recommendations: "In addition, increase the intake of seafood, and fat-free and low-fat milk and milk products, and consume only moderate amounts of lean meats, poultry, and eggs." With just this one industry-friendly sentence, the consumer is given permission by the Dietary Guidelines Advisory Committee to continue eating the animal foods (albeit in moderation) that have caused our nation's current health crisis.

Please take the time to read this report or, at least, the Major Conclusions. Your written comments to the Dietary Guidelines Advisory Committee must be received before 5:00 pm EDT on July 15, 2010.

Doubletalk throughout the Report

On Animal Foods and Disease

In some statements, the Dietary Guidelines Advisory Committee discourages meat and dairy consumption: "…deliberate public health efforts are warranted to reduce intakes of saturated fats to meet dietary guidelines for optimal health. Males older than age 12 years also are encouraged to consume less total dietary cholesterol." Then the committee contradicts these warnings by writing, "Americans may choose animal products as part of their diet based on the body of evidence showing a general lack of relationship between animal protein consumption and selected health outcomes."

Saturated fat and cholesterol are synonymous with meat, dairy, and egg products. Ample evidence establishes beyond any reasonable doubt that the consumption of animal products are a major player in the cause of osteoporosis, kidney stones, liver and kidney damage, heart disease, obesity, type 2 diabetes, and common cancers.

On Dietary Fat and Obesity

When it comes to the main goal of the report, which is fighting obesity, especially in children, the committee warns, "Increased intake of dietary fat is associated with greater adiposity in children." Rather than cut down on the total fat intake, their contradictory recommendation is, "…replacing SFA with some combination of PUFA and MUFA should yield significant public health benefits."

Polyunsaturated fats (PUFA) and monounsaturated fats (MUFA) are equally as fattening for children and adults as are saturated fats (SFA). Other well-established adverse effects of PUFA, such as immune suppression, cancer promotion, gallstone formation, and an increased risk of bleeding, were not mentioned.

On Dairy Products and Health

Most interesting is that throughout the report the Dietary Guidelines Advisory Committee praises milk products for their health benefits without expressing any real concerns over the harms caused by this category of foods. This is especially contradictory since the committee does consistently express concerns about the harmful effects of the intake of excess calories, total fat, saturated fat, simple sugars, and sodium, which are the major components of milk products. They write, "Early signs of atherosclerotic CVD [cardiovascular disease] are also seen in children, and a number of studies indicate that the atherosclerotic process begins in childhood and is affected by high blood cholesterol levels. Therefore, reduction in SFA in children and young adults may provide benefits decades earlier than currently appreciated relative to both CVD and T2D [type 2 diabetes] incidence."

Even after recognizing the harmful effects of saturated fats and cholesterol, especially for children, the committee emphasizes the importance of hooking our youth early: "It is especially important to establish milk drinking in young children, as those who consume milk as children are more likely to do so as adults." Sincere interests in protecting our children would have resulted in clear and strong warnings about the harmful effects of fat-filled foods, such as milk, cheese, cottage cheese, ice cream, and yogurt.

Also note that low-fat milk products, labeled as 1% and 2%, actually contain 13% and 23%, respectively, of their calories as saturated fat. The Dietary Guidelines Advisory Committee recommends a reduction of saturated fat to less than 7% of daily calories. Low-fat milk products fail to meet this important goal.

On Saturated and Trans Fats

The report's 31-page "Major Conclusions" section dedicates (collectively) almost one entire page to defending two kinds of fat that are characteristic of meat and dairy products: saturated fat (stearic acid) and trans fatty acids, found in cows and their byproducts. They say, "…when stearic acid is substituted for other SFA or trans fatty acids, plasma LDL cholesterol levels are decreased…" and "Total elimination of rTFA (ruminant) would require elimination of red meat and dairy products from the diet. Although total elimination of iTFA (industrial) may be desirable, the elimination of rTFA would have wider implications for dietary adequacy and is not recommended."

Saturated fats and trans fats have a reputation for causing serious illness, including atherosclerosis and cancer, and the safety of stearic acid and rTFA is unproven. At the very least they contribute to obesity. The reason for dedicating so much space to defending these two cow-derived fats can only be interpreted as a special concession from the committee to the cattle industries.

Lying by Omission

Lactose Intolerance Ignored

In two sentences the Dietary Guidelines Advisory Committee essentially dismisses the intestinal distress suffered by tens of millions of Americans caused by consuming milk products, including low-fat and non-fat milk products: "Individuals who perceive that they are lactose intolerant or allergic to dairy products should be evaluated for such before unnecessarily limiting or eliminating dairy-based foods from their dietary patterns. Lactose-reduced or low-lactose dairy-based products may assist in obtaining nutrients provided by the fluid milk and milk products food group for those who are lactose intolerant." Estimates are that consuming milk sugar (lactose) makes 60 to 90 percent of non-white people—the majority of Americans—sick. For the Dietary Guidelines Advisory Committee to minimize the importance of this major health issue must be considered to be a special concession to the dairy industry (and possibly racist).

Damage from Animal Protein Ignored

The harmful effects of protein overload were dismissed by the Dietary Guidelines Advisory Committee with this statement: "The data are conflicting on the potential for high-protein diets to produce gastrointestinal effects, change nitrogen balance, alter mineral absorption, or affect chronic diseases, such as osteoporosis or renal stones." Animal foods are inherently high in protein. By recognizing high-protein foods as safe, the Dietary Guidelines Advisory Committee has removed a major concern about eating meat, poultry, shellfish, fish, eggs, and especially, low-fat milk products. The result of reducing the fat content in milk products is a large increase in their protein and sugar (lactose) content.

The preponderance of scientific evidence recognizes animal foods, high in acids and protein, as damaging to the bones. The human body neutralizes dietary acids by releasing alkaline materials (carbonates, citrates, and sodium) from the bones. The chronic acidosis caused by consuming usual quantities of cheese, meat, poultry, fish, and shellfish is the primary cause of osteoporosis. Worldwide, rates of hip fractures (and kidney stones) increase with increasing animal protein consumption (including dairy products). People from the US, Canada, Norway, Sweden, Australia, and New Zealand who have the world's highest animal-protein consumption also have the highest rates of osteoporosis. The lowest rates are among people from rural Asia and rural Africa who also eat the fewest animal-derived foods (these people are also on lower calcium diets).

Major Sources of Infections Ignored

The Dietary Guidelines Advisory Committee discussed in great detail in the final pages of the "Major Conclusions" section of this report the importance of home-based food safety practices. "Evidence shows that proper hand sanitation techniques, proper washing of vegetables and fruit, prevention of cross-contamination, and appropriate cooking and storage of foods in the home kitchen are most likely to prevent food safety problems." (Note that the words meat, poultry, milk, cheese, eggs, or fish do not appear in this advisement.)

Ignored by the Dietary Guidelines Advisory Committee are the real sources of microbes that infect Americans: the filth found in meat, poultry, dairy, egg, and fish products. Essentially all food-borne pathogens that sicken people have their origin in animals. This can be from a direct transfer caused by eating their muscles and organs or their lactation fluids, or an indirect transfer, such as commonly occurs when animal excrement contaminates vegetables and fruits (plant pathogens do not infect people).

Dairy products, followed by seafood, have been the foods most often recalled by the US Food and Drug Administration (FDA) because of contamination with infectious agents, mostly bacteria. Meat, poultry, eggs, and dairy products are commonly tainted with disease-causing bacteria, such as salmonella, staphylococci, listeria, deadly E. coli O157 and mycobacterium paratuberculosis. Viruses, known to cause lymphoma and leukemia-like diseases and immune deficiency disease, are found in most cattle herds in the US.

The Dietary Guidelines Advisory Committee should be telling Americans that the best way to avoid the 25 to 250 million cases of food-borne illness causing an estimated 6000 to 10,000 deaths annually in the US would be to stop eating the sources of the infections: animal foods. Of course, the US government should also oversee the clean up of the livestock industries' manufacturing practices.

Factual Errors

Plants Are Incomplete Proteins

The Dietary Guidelines Advisory Committee took an often stated but incorrect position on the adequacy of amino acids found in plant foods, stating, "Consumption of plant proteins of lower quality is generally fine as long as calorie needs are met and effort is made to complement the incomplete vegetable proteins…. Individuals who restrict their diet to plant foods may be at risk of not getting adequate amounts of certain indispensable amino acids..." Statements like these only serve to frighten people away from healthy plant-food-based diets.

Basic research completed by the legendary scientist, William Rose, on proteins and amino acids in the spring of 1952 determined the human requirements for the eight essential amino acids. By calculating the amount of each essential amino acid provided by unprocessed complex carbohydrates (starches and vegetables) and comparing these values with those determined by Rose, the results show that any single one or combination of these plant foods provides amino acid intakes in excess of the recommended requirements. Therefore, a careful look at the founding scientific research proves it is impossible to design an amino acid-deficient diet based on the amounts of unprocessed starches and vegetables sufficient to meet the caloric needs of humans. Furthermore, mixing plant foods to make a complementary amino acid composition is unnecessary. The addition of animal foods to a starch-based vegan diet does not improve protein nutrition in children or adults. Current scientific research written by world-renowned experts confirms the fallacy of plants having incomplete proteins. The Dietary Guidelines Advisory Committee is guilty of spreading unscientific rumors.

Vegan Diets Are Nutritionally Inadequate

The Dietary Guidelines Advisory Committee frightens consumers away from plant-food based diets by making the following statements: "Nutrients of concern on vegan diets include calcium, iron, B12, zinc, and long-chain n-3 fatty acids…. Additionally, individuals consuming vegetarian, particularly vegan, diets should ensure adequate intake of all nutrients." In addition, the report says, "Vegan diets may increase risk of osteoporotic fractures."

Plant foods are so plentiful in calcium and iron that there are no cases of deficiency of these essential minerals reported in people following any natural diet, even diets containing no meat or dairy products. Dairy products actually inhibit iron absorption and are completely lacking in iron themselves; and meat contains essentially no calcium. People following diets very high in animal-muscle foods consume about 100 mg of calcium daily. (Current recommendations are from 400 mg to 2000 mg of calcium daily).

Only plants can synthesize essential n-3 fatty acids. People can easily elongate basic plant fats (alpha linolenic acid) into all the long-chain fats that are required for children and adults, pregnant or not. Zinc deficiency is almost unknown worldwide, but is often used as a scare tactic to sell red meat. And yes, vitamin B12 can become a nutritional issue, but only for people who have avoided animal foods for two to three decades. However, taking a supplement of vitamin B12, as recommended by the Dietary Guidelines Advisory Committee, solves this very small risk for people following plant food-based diets.

Two studies served as the basis for claiming vegans have a higher risk of osteoporosis. In the first study, a more likely explanation for higher fracture rates was the greater physical activity performed by vegans and resulting trauma. The second study can best be described as junk science and propaganda from the dairy industry. Worldwide, populations consuming food patterns closest to a vegan diet have the fewest osteoporosis-related fractures.

Dairy Products and the Risk of Malnutrition

The Dietary Guidelines Advisory Committee warns people who choose not to consume cow's milk that they risk malnutrition by stating, "Those who choose not to consume milk and milk products should include other foods in the diet that contain the nutrients provided by the milk and milk products group, protein, calcium, potassium, magnesium, Vitamin D, and Vitamin A."

Protein, calcium, potassium, magnesium, and beta-carotene (pro-vitamin A) are so abundant in whole plant foods that deficiencies are unknown to occur as long as people have enough food to eat, and Vitamin D is a hormone produced by sunlight. The Dietary Guidelines Advisory Committee was clear about its advice to avoid vitamin supplements: "In this context, obtaining essential micronutrients from foods when possible is the optimal approach and reliance on multivitamin/mineral supplements is discouraged." Recommending taking Vitamin D-fortified milk is an obvious inconsistency.

Milk Reduces Heart Disease, Diabetes and other Chronic Diseases

The reason milk has become a health food is because of the effectiveness of the promotional arm of the dairy industry. Dairy Management Inc. began its campaign in 2003 and has spent nearly $200 million annually to fund research that supports their business interests. As a direct result of their efforts, the Dietary Guidelines Advisory Committee can now make this statement: "Research since 2004 shows that the under-consumption of milk and milk products may lead to an increase in cardiovascular disease and type 2 diabetes, as well as an increased risk for poor bone health and related diseases."

The Dietary Guidelines Advisory Committee recognizes dairy foods—loaded with artery-clogging saturated fat, cholesterol, animal protein, and lactose, and deficient in dietary fiber and complex carbohydrates—as the healthiest of foods for Americans to consume. This, of course, is not what science, untainted by dairy industry dollars, clearly reports.

Eggs Are Safe for the General Public

The committee offers this qualified "safe to consume" statement that may appease the egg industry, "…that consumption of dietary cholesterol in the amount of one egg per day is not harmful and does not result in negative changes in serum lipoprotein cholesterol and triglyceride levels. Neither does consumption of eggs at this level increase risk of CVD in healthy individuals."

The scientific research that shows that eggs do not adversely affect blood cholesterol leading to artery disease is funded by the egg industry. Consider that eggs are very high in saturated fat and the most concentrated source of cholesterol in the human diet, with eight times more cholesterol than beef. The trick for showing no rise in cholesterol from eating eggs is to first saturate the experimental subjects with cholesterol from other sources, like beef, chicken and/or fish and then add eggs to the diet. Once a person has consumed 400 to 800 mg of cholesterol in a day, adding more cholesterol-containing foods (such as an egg) causes little rise in blood cholesterol because the bowel cannot absorb more. Poor-quality studies, often funded by the egg industry, add to the information they use to vindicate their products.

The actual impact of eating eggs is seen when people who eat little cholesterol are fed eggs. When 17 lacto-vegetarian college students (consuming 97 mg of cholesterol daily) were fed one extra large egg daily for three weeks their "bad" LDL-cholesterol increased by 12%.

Fish Is Health Food, Especially during Pregnancy

The Dietary Guidelines Advisory Committee is aware that the oceans are in peril and sea life is on the verge of extinction, but this impending calamity did not stop them from supporting the interests of the fishing industry by parroting claims about the benefits of fish fat: "…that consumption of two servings of seafood per week (4 oz per serving), which provide an average of 250 mg per day of long-chain *n*-3 fatty acids, is associated with reduced cardiac mortality from CHD or sudden death in persons with and without CVD. Increased consumption of seafood will require efficient and ecologically friendly strategies to be developed to allow for greater consumption of seafood that is high in EPA and DHA, and low in environmental pollutants such as methyl mercury." As for pregnant women, "The current evidence, however, favors consumption of fish for pregnant and lactating women, particularly in the context of women making educated choices to consume seafood that is high in *n*-3 fatty acids and low in environmental pollutants."

"Fish" refers to the muscles of animals that are high in cholesterol, fat, and animal protein, and totally deficient in dietary fiber and carbohydrate. Thus, they contribute to many of the dietary diseases discussed in this report. Their high levels of methyl mercury, a powerful oxidant, may negate any claimed heart benefits from the *n*-3 fatty acids (omega-3 fats). Furthermore, fish consumption may only serve as a marker for healthier people and have no actual overall heart disease prevention or other health benefits.

The research used to scare pregnant women into eating a food containing fetal damaging levels of envi-

ronmental poisons is seriously flawed. Directly to the point, pregnant women can easily synthesize all the long-chain fats (DHA and EPA) from the basic plant fats, and there is no need for fish to serve as an intermediary.

The Dietary Guidelines Advisory Committee Needs To Be Replaced

These are desperate times. Currently, essentially all Americans over the age of 30 are in poor health and more than two-thirds are overweight. Over half have other risk factors (elevated cholesterol, hypertension, etc.) that predict a shorter, less productive life, and at least one-third are on medications for treating diet-induced problems.

Following my first reading of the 2010 Dietary Guidelines for Americans I thought the report could be rewritten. Now after a more thorough evaluation of this document I realize this is not possible. There is no other solution than to replace the Dietary Guidelines Advisory Committee with experts who will look at the science with an impartial gaze and render recommendations that are truly for the people rather than for America's industries.

America needs a Dietary Guidelines Advisory Committee dedicated to fixing the problem of the rich Western diet. Trillions of dollars are at stake if the truth is told, but the survival of our nation is at stake if we do not take action that is long overdue.