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The 2015 US Dietary Guidelines – Ending the 35% Limit on Total Dietary Fat

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Every 5 years, the US Departments of Agriculture and Health and Human Services jointly release the *Dietary Guidelines for Americans*. These guidelines have far-reaching influences across the food supply, including for schools, government cafeterias, the military, food assistance programs, agricultural production, restaurant recipes, and industry food formulations. An accurate revision of the *Dietary Guidelines* is crucial to the health of millions of people. Integral to this process is the Dietary Guidelines Advisory Committee (DGAC) report, just released,¹ prepared by appointed scientists who systematically review the literature and provide evidence-based recommendations to the Secretaries of Agriculture and Health and Human Services. In the coming months, the Secretaries will review the DGAC recommendations; consider comments from the public, academics, advocacy groups, and industry; and finalize the *Dietary Guidelines*.

In the new DGAC report, one widely noticed revision was the dropping of dietary cholesterol as a “nutrient of concern.” This surprised the public, but is concordant with scientific evidence demonstrating no appreciable relationship between dietary cholesterol and serum cholesterol¹ or clinical cardiovascular events in general populations.² The DGAC should be commended for this evidence-based change.

A far less noticed, but more momentous, change was the new absence of any limitation on total fat consumption. The DGAC neither listed total fat as a nutrient of concern, nor proposed any limitation on its consumption. Rather, they concluded, “Reducing total fat (replacing total fat with overall carbohydrates) does not lower CVD risk Dietary advice should put the emphasis on optimizing types of dietary fat and not reducing total fat.” Limiting total fat was also not recommended for obesity prevention; instead, the emphasis was on evidence-based healthful food-based diet patterns higher in vegetables, fruits, whole grains, seafood, legumes, and dairy products; and lower in meats, sugar-sweetened foods and drinks, and refined grains.

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With these quiet statements, the DGAC boldly reversed nearly 4 decades of focus on reducing total fat. Starting in 1980, the *Dietary Guidelines* emphasized limiting dietary fat, initially to <30% of calories and then, in 2005, to between 20–35% of calories. Throughout, the main rationale was to lower saturated fat and dietary cholesterol, rather than any clear evidence for direct harms of total fat.³ This reasoning overlooked the complex lipid and lipoprotein effects of saturated fat, including minimal effects on Apo-B in comparison to carbohydrate;⁴ this explains why substitution of saturated fat with carbohydrate does not lower cardiovascular risk.^{1,2} Moreover, a global limit on total fat inevitably lowers intake of unsaturated fats, among which nuts, vegetable oils, and fish are particularly healthful.^{1,2} Most relevantly, this limitation did not account for harms of starches and sugars, the most common replacement when dietary fat is reduced. Indeed, the 1980 *Dietary Guidelines* recommended that intake of “complex carbohydrates” be increased, largely based on theoretical considerations (carbohydrate contains fewer calories per gram than does fat) instead of evidence for health benefits.

As with other scientific fields from physics to clinical medicine, nutritional science has advanced dramatically in recent decades. The 2015 DGAC report, for the first time, is consistent with the accumulated evidence for lack of efficacy of recommending high-carbohydrate, low-fat diets to the general population for any major endpoint, including heart disease, stroke, cancer, diabetes, or obesity.^{1,2}

Related to this, the 2015 DGAC renews the 2005 and 2010 *Dietary Guidelines* call to restrict both added sugars and refined grains. For decades, complex carbohydrates were considered a foundation of a healthful diet, e.g. as evidenced by the Food Guide Pyramid base. This was revised in 2005, based on consistent evidence for harms of starches and sugar. Yet, refined grains continue to represent the largest category of calories in the US food supply, including white bread, white rice, and most chips, crackers, cereals, and bakery desserts. Both industry and consumers have been unsuccessful in meaningfully reducing refined carbohydrates, a failure likely exacerbated by decades of focus on lowering total dietary fat. Recognizing this harmful confusion, the 2015 DGAC specifically concludes that, “consumption of ‘low-fat’ or ‘nonfat’ products with high amounts of refined grains and added sugars should be discouraged.” Yet, more than 70% of Americans continue to exceed the optimal amount of refined grain consumption.¹ Dropping the limitation on total fat should make it easier for industry, restaurants, and the public to increase healthful fats and proteins while reducing refined grains and added sugars.

The US Departments of Agriculture and Health and Human Services should follow the evidence-based, scientifically sound DGAC report and remove any limit on total fat consumption in the final 2015 *Dietary Guidelines*. Yet, this represent only one policy tool to influence American diets, and others should follow suit. For example, the Nutrition Facts Panel, separately regulated by the US Food and Drug Administration, lists % daily values for several key nutrients on packaged foods. Remarkably, this Panel still has not been updated to revise the outdated 30% limit on dietary fat,⁵ obsolete for almost 15 years.⁶ The Nutrition Facts Panel should now be revised to drop total fat, as well as dietary cholesterol, from among the listed nutrients, while adding contents of both refined grains and added sugars. Notably, only adding added sugars, a current proposed change, insufficiently

acknowledges the harms of – and implicitly encourages – the intake of refined grains. The US Department of Agriculture should also modernize its *Smart Snacks in School* standards,⁷ removing the 35% restriction on total fat from the criteria. The Institute of Medicine should also update its report, now nearly 15 years old, on dietary reference intakes for energy, total fat, and other macronutrients.⁶

The current restriction on total fat affects virtually all aspects of the American diet, including school meals (which currently ban whole milk, but allow sugar-sweetened non-fat milk), government procurement for offices and the military, meals for the elderly, and guidelines for food assistance programs that together provide 1 in 4 meals consumed in the US. The restriction on fat also drives food industry formulations and marketing, as evidenced by the heavy promotion of fat-reduced desserts, snacks, salad dressings, processed meats and other products of questionable nutritional value. Not surprisingly, a majority of Americans are still actively trying to avoid dietary fat,⁸ which is typically replaced by refined carbohydrates including highly processed grains, potato products, and added sugars. The limit on total fat presents an impediment to public health, promoting harmful low-fat foods, encouraging high intakes of starch and sugar, and discouraging the restaurant and food industry from providing products and meals high in healthful fats. Based on the accumulated new scientific evidence, the *Dietary Guidelines for Americans*, Nutrition Facts Panel, *Smart Snacks in School* standards, and Institute of Medicine should remove the 35% limit on total dietary fat. This scientifically sound change will have major positive influences on the US food supply, food industry formulations and marketing, and public perception and understanding of evidence-based dietary priorities.

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