

# Challenges to Dietary Fat Dogma Still Supportive of Soyfoods

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Despite recommendations by the major international health agencies to reduce saturated fat intake, debate continues within the scientific community about the relationship between fatty acid intake and coronary heart disease (CHD) risk.

Two good recent articles exemplify this debate. Although both question current dogma regarding dietary fat, they are still consistent with the concept that soyfoods may positively contribute to a heart-healthy diet. Furthermore, there is intriguing evidence that dietary fat detrimentally affects health independent of its effect on CHD risk in ways that emphasize the benefits of soyfoods.<sup>1</sup>

An article in the *British Medical Journal* by Astrup et al.,<sup>2</sup> co-authored by 16 individuals, challenges the dietary guideline related to fat intake of the World Health Organization, which is to replace saturated fat with polyunsaturated fat (PUFA) and monounsaturated fat. The authors emphasize that this recommendation fails to consider the substantial evidence that the health effects of saturated fat vary depending upon the specific fatty acid and on the specific food source. The latter point relates to the observation that saturated fat from different food sources can differentially impact heart disease risk. Astrup et al.<sup>2</sup> argue that a food-based translation of the recommendations for saturated fat intake would avoid unnecessary reduction or exclusion of foods that are key sources of important nutrients.

The other article, by DuBroff and de Lorgeril,<sup>3</sup> published in the *BMJ Evidence-Based Medicine*, noted that 11 of the 22 randomized controlled trials of at least one year in duration that assessed the impact of diet on cardiovascular events, reported statistically significant reductions in serum cholesterol, but none of these reported a mortality benefit and only two reported a reduction in cardiovascular disease (CVD) events. These authors also concluded that the results of meta-analyses that broadly examined the relationship of dietary fat to CVD and/or mortality do not support the diet-heart hypothesis (that diet, serum cholesterol and CVD are causally related) or the recommendation to replace saturated fat with PUFA.

The articles by Astrup et al.<sup>2</sup> and DuBroff and de Lorgeril<sup>3</sup> suggest that dietary advice regarding CVD should emphasize the overall dietary pattern and perhaps specific foods, not the nutrients within foods or the nutrient composition of the diet. Although these articles do challenge current dogma in many ways, the 2015-2020 Dietary Guidelines emphasize a food first, rather than a nutrient first approach. Also, within the epidemiologic community, there is recognition of the importance of focusing on dietary patterns and disease risk, rather than nutrient intake and disease

risk.<sup>4</sup> Thus, there is considerable agreement within the nutrition community on this point. So, should the articles by Astrup et al.<sup>2</sup> and DuBroff and de Lorgeril<sup>3</sup> change perspective on the role of soyfoods in a healthy diet?

Soyfood intake is promoted in part because of its favorable fatty acid profile. In that limited sense, the articles by Astrup et al.<sup>2</sup> and DuBroff and de Lorgeril<sup>3</sup> might affect perception of the healthfulness of soy. However, soyfoods are also recognized as foods consumed by populations that have historically low rates of CVD. These populations include those people residing in Asia<sup>5,6</sup> as well as Western consumers of plant-based diets,<sup>7</sup> which in general have relatively low rates of CHD.<sup>8</sup> Thus, the observational evidence involving soy is consistent with the perspectives of Astrup et al.<sup>2</sup> and DuBroff and de Lorgeril.<sup>3</sup>

Furthermore, the concern noted above by Astrup et al.<sup>2</sup> that the current dietary fat recommendations could result in a compromised intake of important nutrients isn't applicable to soyfoods. In general, soyfoods provide high-quality protein and vitamins such as folate and minerals such as potassium,<sup>9</sup> and in many cases, also fiber, which is sorely lacking in the American diet.<sup>10</sup>

Finally, there is emerging evidence that saturated fat detrimentally affects health independent of its effect on CHD risk. Namely, that in comparison to PUFA, saturated fat enhances ectopic fat accumulation, especially liver fat, and subsequent risk of developing non-alcoholic fatty liver disease (NAFLD).<sup>1</sup> If this hypothesis is confirmed, diets containing soyfoods as sources of protein can be encouraged for the prevention of both heart disease and liver disease.

## References

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