

# Saturated Fat Working Group

Cross-cutting Topics of Dietary Guidance  
and Public Health Importance



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# Scope

To examine the relationship between the intake of saturated fat and risk of cardiovascular disease

# Invited Experts and Consultants

## **Invited Experts**

Individuals invited by the SC, usually on a one time basis, to provide their expertise to inform the SC's work. Invited experts do not participate in decisions at the SC level.

## **Consultant SC Members**

Individuals sought by the SC to participate in SC discussions and decisions on an ongoing basis but are not members of the full DGAC. Like DGAC members, consultants complete training and have been reviewed and cleared through a formal process within the Federal government.

# Experts and Consultants

Invited Experts (Sept to Nov 2014)

None

Consultant SC Members

None

# Saturated Fat and CVD Pressure in Adults

Topic Lead  
Frank Hu



What is the relationship between saturated fat intake and risk of cardiovascular disease?

Existing Reports

# Saturated Fat and CVD

## Sources of Evidence

- 2 systematic reviews and 6 meta-analyses published from Jan 2009 to Aug 2014
- Particular emphasis was placed on reviews that examined the macronutrient replacement for saturated fat

# Saturated Fat and CVD

## *Draft* Conclusion Statement

- Strong and consistent evidence from randomized clinical trials (RCTs) shows that replacing SFA with polyunsaturated (PUFA) or monounsaturated (MUFA) fat significantly reduces total and LDL cholesterol. Replacing SFA with carbohydrates also reduces total and LDL cholesterol, but significantly increases triglycerides and reduces HDL cholesterol.
- Strong and consistent evidence from RCTs and statistical modeling in prospective cohort studies shows that replacement of SFA with PUFA reduces the risk of cardiovascular (CVD) events and coronary mortality. For every 1% of energy intake from SFA replaced with PUFA, incidence of CHD is reduced by 2-3%.
- Strong and consistent evidence from RCTs and prospective cohort studies shows that reducing total fat (replacing total fat with carbohydrates) does not lower CVD risk.
- Strong evidence from prospective cohort studies shows that higher SFA intake as compared to total carbohydrates is not associated with CVD risk. In some studies, the comparison or replacement nutrient was not specified, but was largely carbohydrates (sources not defined), and in these studies this replacement was not associated difference in risk of CVD.
- **DGAC Grade:** Strong

# Saturated Fat and CVD

## *Draft* Conclusion Statement

- There is limited evidence regarding whether replacing SFA with MUFA confers overall CVD (or CVD endpoint) benefits; one reason is that the main sources of MUFA in a Western pattern diet are animal fat. However, evidence from RCTs and prospective studies has demonstrated benefits of plant sources of monounsaturated fats such as olive oil and nuts on CVD risk.
- **DGAC Grade:** Limited

# Saturated Fat and CVD

## *Draft* Implications Statement

- Recommendations on SFA intake should specify replacement macronutrients and emphasize PUFA and should be based on food and overall dietary patterns.
- Consume a dietary pattern that is low in saturated fat and emphasizes intake of vegetables, fruits, and whole grains; includes low-fat dairy products, poultry, fish, legumes, non-tropical vegetable oils and nuts; and limits intake of sweets, sugar-sweetened beverages and red and processed meats.
- Non-hydrogenated vegetable oils that are high in unsaturated fats and relatively low in SFA instead of animal fats or tropical oils rich in SFA should be recommended as the primary source of culinary fat.

# Saturated Fat and CVD

## *Draft* Implications Statement

- Although a healthy dietary pattern is relatively low in SFA, it can include lean meats and non- and low-fat dairy products consistent with the USDA pattern.
- Simply reducing saturated or total fat in the diet by replacing it with any type of carbohydrates is not effective in reducing risk of CVD, and thus dietary advice should put more emphasis on types of fat rather than the total amount of fat.
- The carbohydrates sources in the dietary pattern should be primarily fiber-rich whole grains, legumes, fruits, and vegetables and should minimize the consumption of refined grains and added sugars. The consumption of “low-fat” or “nonfat” products with high amounts of refined grains and added sugars should be discouraged.

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*Reminder: DGAC members, please state your name before speaking.*