Saturated Fat in the Canadian Diet

THINKBEEF 5

August 2020

The field of nutrition science is ever-evolving and the health effects of saturated fats are a topic of continued debate. The long-held "diet-heart hypotheses" that consumption of saturated fatty acids (SFA) raises LDL-C, an established risk factor of cardiovascular disease (CVD), making it a target nutrient for public health policies, is being challenged. Most recent meta-analyses of randomized trials and observational studies found no beneficial effects of reducing SFA intake on CVD and total mortality.

In describing a healthy diet, the World Health Organization (WHO) recommends intake of saturated fats should be less than 10% of total energy and while the Institute of Medicine (U.S.) has not set Dietary Reference Intakes for saturated fat, they do recommend that saturated fat intake remain as low as possible while consuming a nutritionally adequate diet.

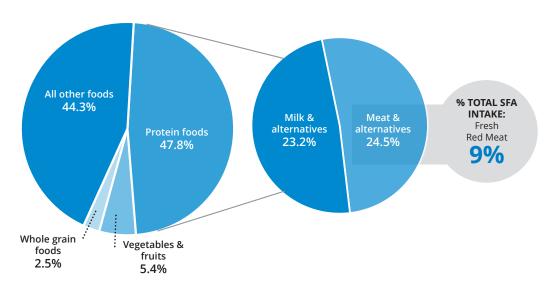
CANADIANS SATURATED FAT INTAKE: STABLE AND CONSISTENT WITH WHO RECOMMENDATIONS

There are two data points available for analysis of Canadians saturated fat intake. One from over 16 years agothe Canadian Community Health Survey (CCHS) 2004 Nutrition – and the more recent follow up survey in 2015 (CCHS - 2015 Nutrition). The CCHS Nutrition Survey is a cross-sectional design survey representative of the Canadian population providing information on the eating habits and dietary intakes of Canadians living in the ten Canadian provinces.

In 2004, the average total energy intake from saturated fats was approximately 10 per cent among Canadian adultsⁱⁱ and the 2015 survey found a similar intake among Canadian adults (10.4 per cent of energy).^{iv} There was no significant change in the total energy intake from saturated fat and this level remains consistent with the WHO recommendation.

SOURCES OF SATURATED FAT IN THE CANADIAN DIET

Research conducted by Laval University classified the food sources of SFA using data from the CCHS – 2015 Nutrition survey. They found the main source of saturated fat (44%) was from foods not included in Canada's food guide: fast food, sugary drinks, snacks, chips, candies, cookies, sweetened milk products, sweetened cereals, sauces and dressings. Meat and alternatives accounted for approximately 25%, and customized analysis of the data reported fresh red meat (beef, pork, veal and lamb) contributed only 9% saturated fat to the Canadian diet. The authors suggest future studies should examine which food substitution is most likely to contribute to a greater reduction in saturated fat intakes at the population level.



Contribution of 2019 Canada's Food Guide categories to total SFA intake (in % of total SFA intake).

In another study, using the NOVA food group classification, refined grains, salty snacks, etc. were found to contribute 48% of the calories to the diet.

THE TAKE-AWAY:

Ultra-processed foods are contributing the most saturated fat and calories to the Canadian diet.

NEW FOOD GUIDE

In 2019, Health Canada released a new version of Canada's food guide. The Eat Well Plate is food focused; not nutrient focused. The accompanying dietary guidelines for health professionals specifically promote animal-based foods that are lower in saturated fat, for example lean red meat such as beef, pork and lamb. Health Canada recommends patterns of eating that include foods lower in saturated fat, such as lean meats, and include dietary fibre, vegetables and fruit and nuts. This food matrix ensures important nutrients, including a variety of fatty acids, are included in the diet. Adopting this whole foods dietary pattern will help reduce intakes of saturated fat, while encouraging foods that contain mostly unsaturated fat.

SCIENTIFIC EVIDENCE

A large and fast-growing body of scientific literature determines that upper limits on saturated fats are no longer warranted. Two recent papers challenge the long-held "diet-heart hypotheses" that eating saturated fats raises the risk of heart disease. Health Canada's limits on saturated fats are not justified by the current science. The recommendation to limit saturated fat intake has persisted despite mounting evidence to the contrary.

The most rigorous kind of data, which can demonstrate cause and effect, come from randomized, controlled clinical trials. Some 75,000 people have been tested in such trials, on the question: do saturated fats cause heart disease? The results from these trials lead to the conclusion that saturated fats have no effect on cardiovascular or total mortality.* Based on the evidence, an expert panel recommended that most people can continue to consume red meat at current average intakes of about 3 to 4 times a week.

An observational study, which can only demonstrate associations, found the increased absolute risks of Cardio Vascular Disease mortality were less than 2% over the 30 years of follow-up.xi The authors found the magnitude of association in this study was small and they could not establish causality.

Heart and Stroke Canada advises that while science continues to evolve, it is important to note that the overall quality of one's diet, combined with the types, qualities and quantities of foods, have more impact on health than any single nutrient such as saturated fat.^{xii} They maintain that consuming a healthy balanced diet that includes plenty of vegetables and fruit, whole grains, and proteins from various sources (for example lean meats, poultry, fish, dairy, beans, lentils, nuts and seeds), contributes to a decreased risk of heart disease, stroke and other chronic diseases.

EDUCATION AND AWARENESS

Adequate food preparation skills are needed to prepare healthy meals. Individuals who lack basic food selection and preparation skills may be more likely to rely on take-out, ready-to-eat or packaged convenience foods. Of particular importance are food skills related to selection and preparation of vegetables and fruit. Studies indicate that a lack of confidence and poor cooking skills contribute to lower vegetable and fruit intake among low socioeconomic groups.xiii

Rather than focus on a low fat and/or low saturated fat diet, it would be prudent to advise that Canadians choose a healthy balanced dietary pattern, avoiding highly processed foods, sugary drinks and take-out prepared foods, and include more vegetables and fruit, cooking at home using natural, whole and minimally processed foods.

PRACTICAL RECOMMENDATIONS

- 1. Adopt a foods-first approach to good nutrition that includes a wide variety of wholesome basic foods.
- 2. Importantly, reduce overall caloric intake.
- 3. Choose nutrient-dense foods that provide vitamins, minerals and other nutrients that may have positive health effects, with moderate calorie contribution.
- 4. Choose lean meat (lean cuts trimmed of fat), and choose lean grinds that you grill or broil or drain after cooking before incorporating into recipes. These cooking techniques can reduce total fat about a third. Minimize or exclude added sugars, refined starches and solid fats from cooking; these add calories but few essential nutrients or dietary fibre. Choose nutrient-dense foods and minimize or exclude added salt or other condiments high in sodium.

Examples of nutrient-dense foods:

- · Vegetables and fruits
- Whole grain foods
- · Lean meats and poultry
- · Fat-free or low-fat milk and milk products
- Seafood
- Eggs, beans and peas (legumes)
- Nuts and seeds

References:

- World Health Organization. Healthy Diets 2018. https://www.who.int/news-room/fact-sheets/detail/healthy-diet
- Institute of Medicine. Dietary Reference Intakes: The Essential Guide to Nutrient Requirements. Washington: The National Academies Press; 2006.
- Health Canada. Do Canadian adults meet their nutrient requirements through food intake alone? Health Canada, Ottawa 2012. https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/canadian-adults-meet-their-nutrient-requirements-through-food-intake-alone-health-canada-2012.html
- [™] Harrison S et al. Consumption and Sources of Saturated Fatty Acids According to the 2019 Canada Food Guide: Data from the 2015 Canadian Community Health Survey. Nutrients 2019, 11, 1964. https://www.mdpi.com/2072-6643/11/9/1964
- ^vMoubarac JC. Ultra-processed foods in Canada: consumption, impact on diet quality and policy implications. December 2017. https://www.heartandstroke.ca/-/media/pdf-files/canada/media-centre/hs-report-upp-moubarac-dec-5-2017.ashx
- Health Canada. Canada's Dietary Guidelines, 2019. https://food-guide.canada.ca/static/assets/pdf/CDG-EN-2018.pdf
- **Astrup A., et al. Saturated Fats and Health: A Reassessment and Proposal for Food-based Recommendations: JACC State-of -the-Art Review, Journal of the American College of Cardiology, June 2020. DOI: 10.1016/j.jacc.2020.05.077.
- ^{wiii}Diamond, D., et al. Dietary Recommendations for Familial Hypercholesterolaemia: an Evidence-Free Zone, BMJ Evidence-Based Medicine, July 2020. http://dx.doi.org/10.1136/bmjebm-2020-111412.
- *Nutrition Coalition. The Disputed Science on Saturated Fats https://www.nutritioncoalition.us/saturated-fats-do-they-cause-heart-disease *Johnston BC, Zeraatkar D, Han MA, et al. Unprocessed Red Meat and Processed Meat Consumption: Dietary Guideline Recommendations From the Nutritional Recommendations (NutriRECS) Consortium. Ann Intern Med. 2019;171:756–764. https://doi.org/10.7326/M19-1621 *Zhong VW, Van Horn L, Greenland P, et al. Associations of Processed Meat, Unprocessed Red Meat, Poultry, or Fish Intake With Incident Cardiovascular Disease and All-Cause Mortality. JAMA Intern Med. Published online February 03, 2020. https://jamanetwork.com/journalsjamainternalmedicine/article-abstract/2759737
- xii Heart and Stroke Foundation, Saturated Fat, Heart Disease and Stroke: Position Statement
- ^{*iii} Garcia AL, Reardon R, McDonald M, Vargas-Garcia EJ. Community Interventions to Improve Cooking Skills and Their Effects on Confidence and Eating Behaviour. Curr Nutr Rep. 2016;5(4):315–322. doi:10.1007/s13668-016-0185-3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5097072

Brought to you by Canada Beef

