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U.S. Department of Agriculture (USDA) U.S. Department of Health and Human Services (HHS)

USDA-FNS and HHS,



The <u>U.S. Canola Association</u> (USCA) appreciates the opportunity to comment on topics and questions related to the development of the *Dietary Guidelines for Americans 2025-30*. Based in Washington, D.C., the USCA works to support and advance U.S. canola production, marketing, processing and use through government and industry relations. Since its founding in 1989, the USCA has helped domestic canola acreage grow from virtually zero to 2.2 million. It represents all industry segments, including farmers from five U.S. regions.

Our comments highlight the health benefits of canola oil in the diet for people of all ages and health statuses. Canola oil has Generally Recognized as Safe (GRAS) status for use in infant formula and qualified health claims from the U.S. Food and Drug Administration (FDA) on its ability to reduce the risk of coronary heart disease in both regular (commodity) and high-oleic versions.

Canola oil is predominantly composed of unsaturated fatty acids (UFAs), including 62 percent oleic acid, a monounsaturated fatty acid (MUFA), and 9 and 19 percent of polyunsaturated fatty acids (PUFAs) alpha-linolenic acid (ALA) and linoleic acid (LA), respectively. In fact, canola oil has the least saturated fatty acids (SFAs), only 7 percent, and the most omega-3 ALA of all common cooking oils. (See <u>dietary fat comparison chart for oils</u>.) It is also a good source of vitamins E and K as well as plant sterols. Using canola oil as an everyday cooking oil is a simple, affordable way for Americans to reduce their risk of heart disease, metabolic syndrome and type 2 diabetes while increasing their intake of vitamin E and the essential fatty acid ALA.

"What is the relationship between food sources of saturated fat consumed and risk of cardiovascular disease?" is the primary question from the 2025-2030 Dietary Guidelines Advisory Committee that the USCA can address. We can also touch upon dietary patterns and strategies for body composition as they pertain to fatty acid consumption. Below are summaries of studies providing evidence that canola oil helps reduce heart disease risk and abdominal adiposity, manage type 2 diabetes, and potentially protect against colon and breast cancers when consumed in place of SFAs.

DIETARY PATTERNS ACROSS LIFE STAGES

Canola oil well fits into the current Dietary Guidelines for Americans and recommended eating patterns (Healthy U.S.-Style/DASH, Healthy Mediterranean-Style and Healthy Vegetarian Dietary Patterns). It is also a key component of other healthy dietary patterns, notably the <u>Nordic Diet</u>. Clinical studies have been going on for decades involving thousands of human volunteers to examine canola oil, its components (e.g., MUFA, ALA and LA) and their effects on

the body. Based on this research, the <u>FDA authorized</u> in 2006 a <u>qualified health claim</u> for canola oil on its ability to reduce the risk of heart disease when used in place of SFAs and the same <u>claim for high-oleic canola oil</u> in 2018.

A scientific literature review published in *Nutrition Reviews* in June 2013 summarized additional studies on health benefits of canola oil. Data showed that:

- Canola oil substantially reduces total and LDL cholesterol levels and improves insulin sensitivity when used in place of SFAs as well as increases levels of tocopherol (vitamin E) compared with other dietary fat sources.
- Canola oil can help consumers meet expert dietary fat recommendations (less than 10 percent SFAs from total daily calories and minimal *trans* fat) and can be included in diets designed to reduce blood cholesterol and/or heart disease risk.
- Compared with high-SFA or typical Western diets, canola oil-based diets can reduce total and LDL cholesterol in healthy people and those with high cholesterol, reducing heart disease risk.
- With 62 percent MUFA, canola oil may prevent the oxidation of LDL cholesterol. Oxidized LDL may contribute to inflammation in the arteries and heart disease risk.
- **Canola oil may promote immune and cardiovascular health** through its anti-blood clotting and anti-oxidative effects.
- Canola oil may help reduce inflammation in the body and possibly protect against breast and colon cancers. Researchers are interested in studying this further.

<u>Additional studies</u> with canola oil since publication of this scientific literature review support these benefits, too.

Blood Glucose Control and Canola Oil

Canola oil can help control blood glucose in people with type 2 diabetes when included as part of a low-glycemic index (GI) diet, according to research published online June 14, 2014 in <u>Diabetes Care</u>. The study of Canadian adults with type 2 diabetes showed that adding canola oil to the diet helps control blood glucose and risk of cardiovascular disease (CVD).

In the randomized controlled trial, 141 participants with type 2 diabetes who were taking drugs to control blood glucose were given either a test or control diet for three months. The test diet was low-GI (minimizing fluctuations in blood glucose levels) and higher in fat, including bread made with canola oil (31 grams of oil per person per day). The control diet was healthy, low-fat and high fiber. Results showed that those who consumed the canola oil diet improved blood

glucose control. Importantly, participants at increased risk for adverse effects from type 2 diabetes, such as those with high blood pressure, derived the greatest benefits.

The <u>"Effect of Lowering the Glycemic Load with Canola Oil on Glycemic Control and</u> <u>Cardiovascular Risk Factors: A Randomized Controlled Trial</u>" was the first study to assess the combination of healthy dietary fat and low-GI food intake. In addition to helping control blood glucose, canola oil consumption was associated with a significant reduction in LDL cholesterol. This may translate into an extra 7 percent reduction in CVD events, the researchers noted.

SPECIFIC DIETARY PATTERN COMPONENTS Saturated Fat: What is the relationship between food sources of saturated fat consumed and risk of cardiovascular disease?

Canola oil is predominantly composed of UFAs, which can replace SFAs with a heart health benefit. This was confirmed on Oct. 6, 2006, when the FDA authorized a qualified health claim for canola oil on its potential to reduce the risk of coronary heart disease based upon a dossier of scientific evidence. In short, it states that consuming about 1.5 tablespoons of canola oil daily in place of SFAs may reduce the risk of heart disease. Officially, this claim is:

Limited and not conclusive scientific evidence suggests that eating about 1½ tablespoons (19 grams) of canola oil daily may reduce the risk of coronary heart disease due to the unsaturated fat content in canola oil. To achieve this possible benefit, canola oil is to replace a similar amount of saturated fat and not increase the total number of calories you eat in a day. One serving of this product contains [x] grams of canola oil.

On Nov. 19, 2018, the FDA authorized a similar qualified health claim for edible oils high in the MUFA oleic acid (containing at least 70 percent per serving). Consuming such oils, including high-oleic canola oil, may reduce the risk of heart disease when used in place of sources of saturated fat. Just 1.5 tablespoons (19 grams) a day of high-oleic oils is enough to have this effect.

STRATEGIES FOR INDIVIDUALS AND FAMILIES RELATED TO DIET QUALITY & WEIGHT MANAGEMENT

What is the relationship between specific food-based strategies during adulthood and body composition, risk of overweight and obesity, and weight loss and maintenance?

Abdominal obesity is a risk factor for CVD and diabetes and prevalent in U.S. adults of all ages. Rates of elevated blood pressure, adverse blood lipid profiles and diabetes are highest in those with elevated abdominal obesity.

Canola and high-oleic canola oils were shown to lower abdominal fat when used in place of three other types of oils in a heart-healthy diet for weight maintenance, according to research from the Canola Oil Multicentre Intervention Trial (COMIT). Published in the <u>November 2016</u> <u>Obesity journal</u>, the study of American and Canadian adults at risk for metabolic syndrome

showed that consuming canola oil and its high-oleic counterpart may reduce their risk of this condition.

In the multicenter, randomized, controlled trial, 121 participants at risk for metabolic syndrome were all given a weight-maintenance, heart-healthy diet with a daily smoothie containing one of five study oils. This process was repeated with each oil in a cross-over design. Study oils included canola, high-oleic canola, high-oleic canola oil enriched with an algal source of the omega-3 DHA, a flax/safflower oil blend and a corn/safflower oil blend.

Results showed that those who consumed canola or high-oleic canola oils on a daily basis for four weeks lowered their abdominal fat by 1.6 percent. Abdominal fat was unchanged by the other three oils – two of which (flax/safflower and corn/safflower oil blends) were low in MUFA. This study suggested that a diet high in MUFA without DHA may reduce the risk of metabolic syndrome and therefore, heart disease, stroke and type 2 diabetes.

Finally, canola oil is suitable for almost every culinary application and cuisine due to its neutral taste, light texture, high heat tolerance (<u>smoke point</u> of 468 °F) and oxidative stability. It is widely available and affordable.

In summary, canola oil fits well into dietary patterns across life stages, helps reduce the risk of heart disease when used in place of SFAs and can be used in strategies to improve body composition and weight. Canola oil provides an easy, effective and affordable way for Americans to consume healthy fats.

On behalf of the USCA, thank you for consideration of these comments.

Respectfully submitted,

Andrew Moore President U.S. Canola Association

> U.S. Canola Association · 600 Pennsylvania Ave., NE, Suite 320 · Washington, DC 20003 Tel: 202-969-8113 · www.uscanola.com