

Heart Headlines

A professional resource on nutrition and heart health
brought to you by the Promise Institute for Heart Health Nutrition

The facts about trans fat: Your role and how to guide patients

THE FOCUS



TRANS FAT AND HEART HEALTH

This issue examines trans fat and provides information to help you guide your patients in making heart healthy choices.

It is well known that diet is a key lifestyle risk factor in the development of cardiovascular disease (CVD), the leading cause of death in industrialized nations. Because of this importance, dietitians are critical and valued members of the health care team in bringing health care professionals up to speed on evidence-based nutrition recommendations and in providing patients with the knowledge and tools to make heart healthy changes in their diets in an effort to help reduce risk of CVD.

Is nutrition therapy effective in reducing the risk of CVD?

The U.S. Preventive Services Task Force (USPSTF)¹ found strong evidence that providing moderate- to high-intensity dietary counseling for patients with hyperlipidemia and other CVD risk factors yields significant benefits in improving patients' diets. Counseling is more likely to improve health outcomes if it is delivered by a team that includes a registered dietitian.²

Dietary change can considerably reduce the risk of heart disease. Research shows that the Portfolio diet, which includes soluble fiber, plant sterols, soy protein, legumes and nuts with minimal saturated fat and little or no trans fat, can decrease low-density lipoprotein (LDL) cholesterol and C-reactive protein levels to those that can be similarly achieved by using pharmaceutical agents, such as statins, combined with a prudent diet.³

To begin this series of professional

resources on nutrition and heart health, our first issue of *Heart Headlines* will discuss saturated and trans fatty acids, as well as salient points for counseling patients.

For a heart healthy diet, eat less saturated and trans fat.

The facts: Both saturated and trans fat, not just trans fat alone, have an impact on heart health. Both saturated fat and trans fat raise LDL cholesterol⁴; however, trans fat also decreases HDL cholesterol levels.^{4,5,6,7}

The U.S. Food and Drug Administration estimates that the intake of saturated fat is 4 to 5 times that of trans fat.⁴ Therefore, it's recommended to cut back on eating foods rich in saturated fat and avoid foods containing trans fat. Research shows that risk of high cholesterol and heart disease is reduced most effectively when both saturated and trans fats in the diet are replaced with unsaturated fats.⁸

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Table 1

Amount of saturated and trans fat in common foods

Food and serving size	Saturated fat per serving	Trans fat per serving
French fries (medium)	3.2 g	3.8 g
Chicken nuggets (5 pieces)	3.7 g	2.4 g
Shortening (1 tbsp)	3.0 g	4.3 g
Chocolate cookies with cream filling (3)	1.1 g	1.6 g
Non hydrogenated margarine (2 tsp)	1.0 g	0.0 g

Values derived from 2005 USDA National Nutrient Database for Standard Reference.

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Heart Headlines[™] is published regularly and sent to health care professionals by the Promise Institute for Heart Health Nutrition. Promise established the Promise Institute for Heart Health Nutrition to provide heart health educators and the public with the latest scientific information and useful educational tools about nutrition and heart disease.

KEY POINTS

- 1 Reduce both saturated and trans fat.
- 2 Replace butter, shortening and hard margarine with soft, non-hydrogenated margarine or vegetable oil.
- 3 Advise patients to read the Nutrition Facts panel.

Guide your patients*Continued from Page 1*

Recommendation: Both the Dietary Guidelines for Americans 2005 and National Academies of Science recommend keeping intake of trans fat as low as possible and limiting saturated fat to less than 10% of total calories.^{4,9} Heart healthy unsaturated fat from olive, canola and other vegetable oils and from soft, non-hydrogenated margarine or spreads should be used to replace products containing saturated and trans fat whenever possible in cooking and food preparation.⁸

**Reducing trans fat:
How low to go?**

The facts: According to data from government studies, Americans consume an average of 5.8 g of trans fat per day, most of which comes from partially hydrogenated oils found in processed and fast foods.⁴

(See Table 1 for the amounts of saturated and trans fat found in some common foods.)

Both the Dietary Guidelines for Americans and the National Academy of Sciences Dietary Reference Intakes indicate trans fat intake should be kept as low as possible, recognizing that a percentage of trans fat intake comes from naturally occurring trans fats in animal foods, like meat and dairy products.^{4,10}

They both encourage reducing saturated fat and trans fat intake while following a balanced diet designed to provide a healthy nutrient intake.^{9,10}

Recommendation: Trans fat is found in many baked goods and pastries as well as packaged foods and can also occur naturally in small amounts in meat and milk products.

The goal should be to reduce intake as much as possible by making informed, nutritious choices and reading labels of processed foods. A diet abundant in fruit and vegetables, whole grains, legumes, low- or non-fat milk products and lean meats should be emphasized, in keeping with the Dietary Guidelines. Consuming fewer processed foods made with partially hydrogenated oils and less fast food helps cut down on both saturated and trans fat intake.

**Butter or margarine —
which is a heart healthy choice?**

The facts: Media attention around trans fat often questions the choice of butter versus margarine and recommendations on which is “healthier” have flip-flopped over the years. There are several key nutritional differences between these products that are often misunderstood.

Butter and margarine differ in the types of fats they contain, the number of calories per serving and the amount of total fat per serving. Regular butter contains 20% more calories and 30% more fat than regular margarine while light butter contains 35% more calories and 40% more fat than light margarine or spread (2005 USDA National Nutrient Database). In addition, the fat in butter is mostly saturated and regular consumption can increase the total dietary intake of saturated fat. Conversely, margarines and spreads are made from unsaturated vegetable oils.

Table 2**Criteria for trans fat and saturated fat content claims****Products can claim**

	Free	Low	Reduced/Less
Trans fat	Less than 0.5 g trans fat per serving	n/a	n/a
Saturated Fat	Less than 0.5 g saturated fat and less than 0.5 g trans fatty acids per reference amount and per labeled serving	1 g or less per reference amount and 15% or less of calories from saturated fat	At least 25% less saturated fat per reference amount than an appropriate reference food

It is important, however, to distinguish between hard and soft margarines, since they are not all made the same way. Some stick margarines are made with partially hydrogenated vegetable oils, producing trans fat as a by-product, in order to keep the margarine hard. The difference between soft, non-hydrogenated margarine and hard, partially hydrogenated margarine is important to explain to patients when advising them on heart healthy spreads in order to help them manage saturated and trans fat intakes.

Recommendation: The best choice to reduce both saturated and trans fat is to replace butter, lard, shortening and hard stick margarine with unsaturated fats such as soft, non-hydrogenated margarine and vegetable oils such as olive or canola. Recommend margarines and spreads that state “non-hydrogenated” and “no trans fat” on the package.

Finding fat on the Nutrition Facts panel: New labeling regulations.

The facts: Consumers often ask, “How do I know if there is trans fat in the food I buy at the grocery store?” The revised Nutrition Facts panel, required as of January 2006, will help patients differentiate the types of fat in foods and identify the amount of trans fat a product contains. Although smaller food manufacturers have until 2008 to comply, most packaged food products now include trans fat on the Nutrition Facts panel.

Recommendation: Encourage purchasing lower-fat products more often, which will cut not only total dietary fat, but also saturated and trans fat. Also teach patients to read food labels to identify the amount of saturated and trans fat contained in the foods they choose. In cases where a product does not have a Nutrition Facts panel, consumers can look at the ingredient list for clues. If one of the first ingredients listed is “hydrogenated fat” or “shortening,” the product likely contains trans fat.

Criteria for health claims

The facts: The FDA’s new regulations specify the criteria that products must meet in order to make nutrient content claims and diet-related health claims. The criteria for claims relating to trans fat are listed in Table 2.

Recommendation: Understanding the FDA’s new labeling regulations and the strict criteria required for making trans fat content and health claims fosters

valuable label-reading skills and encourages food choices that fit into a heart healthy eating plan.

If a food manufacturer removes trans fat from a product, will it be healthier?

The facts: An increase in public awareness of trans fat has prompted many companies to remove partially hydrogenated fat and shortening from their products.

Recommendation: If ingredients in a product have been reformulated in order to remove the source of trans fat, it’s important to continue reading food labels. The removal of trans fat often results in an increase in saturated fat. Advise looking at the amount of both saturated and trans fat listed on the Nutrition Facts panel.

Some products made with hydrogenated oil list the trans fat as zero. How is this possible?

The facts: If only a very small amount of partially hydrogenated oil is used and the resulting product contains less than 0.5 g of trans fat (and other criteria; see Table 2) per serving, the product is allowed to claim it contains “no trans fat.” Because less than 0.5 g is considered to be an insignificant amount, trans fat content on the Nutrition Facts panel can be rounded down to zero.

Recommendation: Look for products that state no trans fat and do not contain hydrogenated oil or shortening as one of the top ingredients. 🚫

Qualified and unqualified health claims

Health claims characterize a relationship between a specific food component or a specific food and a disease or health-related condition and are supported by scientific or other evidence.

Qualified health claims

Must be accompanied by a disclaimer or otherwise qualified. For example, scientific evidence suggests but does not prove that eating 1.5 ounces per day of peanuts as part of a diet low in saturated fatty acids and cholesterol may reduce the risk of heart disease. The key message of a qualified health claim is that it describes the relationship between a food or ingredient and disease as well as indicates the limitations of the scientific support.

Unqualified health claims

The key message of an unqualified health claim is that it describes the relationship between a food or ingredient and disease. For example, soy drink, as part of a diet low in saturated fatty acids and cholesterol, may help reduce the risk of heart disease.

Structure/function health claims

These describe the relationship between a food or ingredient and the maintenance of healthy structure or function of the body. For example, calcium builds strong bones. Structure/function claims are not pre-reviewed or authorized by the FDA and therefore must be truthful and not misleading.

Simple ways to choose better fats

To help educate patients about a heart healthy diet, below are two key principles for choosing healthier fats followed by tips for heart healthy eating.

1. Eat less saturated fat and trans fat. Both of these fats are found in foods such as butter, meat, baked goods, fast foods and foods made with shortening or hydrogenated oils. Saturated and trans fat can raise cholesterol and a high cholesterol level is a risk factor for heart disease.

2. Choose unsaturated fats. Replace saturated and trans fat in your diet with monounsaturated and polyunsaturated fats. These fats help lower LDL cholesterol levels and have other health benefits when eaten in moderation. Soft, non-hydrogenated margarine and olive, canola, sunflower, safflower and soy oils contain predominantly unsaturated fat.

Tips for your patients to reduce saturated and trans fat

- Check the Nutrition Facts panel and choose foods that are lower in saturated fat and trans fat.
- Use soft, non-hydrogenated margarine and liquid vegetable oils instead of butter, lard, shortening or hard margarine.
- Choose foods that contain monounsaturated and polyunsaturated fat such as olive, canola, sunflower, safflower, corn and soybean oils.

Use information on food labels to help make healthy choices

- Read the Nutrition Facts panel to see how much saturated and trans fat the product contains.

- If a product doesn't have a Nutrition Facts panel, look at the ingredients list for clues to determine the type of fat it contains.
- Avoid products that list hydrogenated oil or shortening as one of the first ingredients.
- When trans fats are removed from food products, they are often replaced with saturated fats. Look at the Nutrition Facts panel to see how much saturated fat is in the product. As recommended by the Dietary Guidelines for Americans 2005, keep intake of trans fats as low as possible and limit saturated fat to less than 10% of calories (a limit of 20 g of saturated fat per day for a 2,000-calorie diet).

Heart healthy choices

- Choose whole grain products that do not contain hydrogenated or partially hydrogenated oils.
- Enjoy plenty of vegetables and fruit more often.
- Select fish, legumes, poultry and lean cuts of meat. Trim the exterior fat from meat and remove the skin from poultry.
- Opt for nonfat, 1% milk and low-fat milk products.

Healthy options for eating on the run

- Enjoy fresh foods rather than fried fast foods. Choose sandwiches, wraps and salads made with whole grain breads, vegetables, fruit, lean meat, poultry, fish and legumes.
- Keep nutritious snacks close at hand. Try nuts, fresh fruit, nonfat or low-fat yogurt, air-popped popcorn and trail mix instead of doughnuts, cookies and chips that typically contain saturated and trans fats. 🦋

Fully or partially hydrogenated – what is the difference?

Some products are made with fully hydrogenated oils and some are made with partially hydrogenated oils. What is the difference?

- **Full hydrogenation** of oil involves adding hydrogen to liquid oil in order to make it solid. The fat becomes fully saturated with hydrogen and becomes firm. This creates **saturated fat**.
- **Partial hydrogenation** also involves adding hydrogen to oil, but the hydrogen only saturates some of the fat. This creates **trans fat**. Note: Labeling regulations state that both partially and fully hydrogenated oils must be listed as "hydrogenated oil" in the ingredients list. The Nutrition Facts panel can tell you whether saturated or trans fat is present.

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