

April 22, 2004

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Dear Ms. McMurry:

Considering that the Dietary Guidelines Advisory Committee is evaluating the health effects of various dietary fatty acids, members of the committee might be interested in some information that the Center for Science in the Public Interest has collected concerning fatty acid levels on packaged foods.

Over the past 15 years, studies have demonstrated that *trans* fatty acids promote heart disease. As a consequence, the Food and Drug Administration adopted a regulation that will require *trans* fat to be listed on the Nutrition Facts labels of packaged foods. Also, as a result of both the scientific research and the FDA's impending regulation, many companies have begun reformulating their products. They are switching from partially hydrogenated vegetable oil, the main source of dietary *trans* fat, to other oils. We were concerned that companies might replace the partially hydrogenated oil with a larger amount of another oil, particularly palm oil or other oil that is high in saturated fat.

The attached tables display our findings. In various food categories, we found products made with and without partially hydrogenated oil that were similar in appearance and taste. (See Table 1) The products that were made without partially hydrogenated oil contained less saturated + *trans* fat than the products made with partially hydrogenated oil. Also, products made without partially hydrogenated oil often contained less total fat.

For example, a serving of Nabisco Wheat Thins (31 grams) contains 6 grams of fat, including 1 gram of saturated fat and 2.5 grams of *trans* fat, for a total of 3.5 grams of "bad" fat. In contrast, Hain Wheatettes (30 grams) contain 3.5 grams of total fat, including 0 grams of both saturated fat and *trans* fat.

We also found that some companies have switched from partially hydrogenated oil to more healthful oils in certain of their products. (See Table 2) In these cases, we didn't always know what the companies used before the switch, but those examples demonstrate that it is often feasible to replace partially hydrogenated oil with a more salubrious ingredient.

Our conclusion from our limited marketplace survey is that in many product categories—deep-fried restaurant foods, chips, crackers, cookies, and others—partially hydrogenated oil is not an essential ingredient. In every category we looked at, foods could be reformulated to present a more-healthful fatty-acid profile. Indeed, partially hydrogenated oil does not appear to be needed in any food.<sup>1</sup> That implies that any daily recommended intake for *trans* fatty acids could be set at the level that average consumption of (lean) beef and dairy products would provide.

I would be pleased to provide the committee with further information about our survey, if members wish. Meanwhile, we have posted these materials on our web site for your convenience ([www.cspinet.org/http://cspinet.org/new/pdf/Trans.pdf](http://www.cspinet.org/http://cspinet.org/new/pdf/Trans.pdf)).

Sincerely,

Michael F. Jacobson, Ph.D.  
Executive Director

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<sup>1</sup> The data in our tables may imply substantially underestimate the magnitude of benefits that would result from reformulation foods with oils other than partially hydrogenated oil. First, there is substantial evidence that *trans* is worse than the average saturated fat, because *trans* reduces HDL levels (e.g., Ascherio AM, Kaftan MB, Zonk PL, et al. *trans* fatty acids and coronary heart disease. *New Engl J Med.* 1999;340:1994-8) and has been associated in four prospective cohort studies with an effect on heart disease that is much greater than that associated with saturated fats (e.g., Hu FB, Stampfer MJ, Manson JE, et al. Dietary fat intake and the risk of coronary heart disease in women. *N Engl J Med.* 1997;337:1491-9). Second, different saturated fats have different effects on blood lipids. Thus, replacing shortenings that contain *trans* fat with inter-esterified oils that are relatively rich in stearic acid would have a more favorable effect on blood lipids (ratio of total:HDL-cholesterol) than palm oil (rich in palmitic acid) (e.g., Mensink RP, Zock PL, Arnold DM, et al. Effects of dietary fatty acids and carbohydrates on the ratio of serum total to HDL cholesterol and on serum lipids and apolipoproteins: a meta-analysis of 60 controlled trials. *Am J Clin Nutr.* 2003;77:1146-55).

**Table 1. Trans-Containing and Trans-fat-free Versions of Products that Typically Contain Trans**

(Note that serving sizes are not always identical)

Product Type	Product	Sv. Size Grams	Oil(s) used	Total Fat	Sat. Fat	Trans Fat	Sat + Trans Fat	Info. Source*
<b>Crackers</b>	<b>Nabisco Wheat Thins</b>	<b>31</b>	<b>PH† soybean</b>	<b>6</b>	<b>1</b>	<b>2.5</b>	<b>3.5</b>	Kraft website
	<b>Giant Thin Wheats</b>	<b>29</b>	<b>PH soybean and/or cottonseed</b>	<b>6</b>	<b>1.5</b>	<b>N/A</b>	<b>&gt;1.5</b>	
	Hain Wheatettes	30	Oleic Safflower	3.5	0	0	0	
	<b>Nabisco Ritz</b>	<b>16</b>	<b>PH soybean</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	(CSPI 9/96)**
	Barbara's Rite Lite Round	15	high-oleic safflower	1	0	0	0	On the Box
	Late July Snacks' Classic Rich Crackers	15	high-oleic safflower, palm	2	0	0	0	
	Hains Rich Baked Crackers	15	oleic safflower	2.25	0.5	0	0.5	
	<b>Kraft Cheese Nips</b>	<b>30</b>	<b>PH soybean</b>	<b>6</b>	<b>1.5</b>	<b>2</b>	<b>3.5</b>	Consumer Reports 3/03
	<b>Sunshine Cheez-It's</b>	<b>30</b>	<b>PH soybean and/or cottonseed</b>	<b>7.5</b>	<b>1.5</b>	<b>1.5</b>	<b>3</b>	
	Late July Cheddar Cheese Crackers	30	Oleic Safflower	5	1.5	0	1.5	
	<b>Nabisco Triscuits</b>	<b>28</b>	<b>PH Soybean</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>2</b>	Kraft website
	Triscuits Trans-free (after 4/19/04)	28	soybean	4.5	0.5	0	0.5	Kraft Press Release
	365 (Whole Foods) Woven Wheats	30	No oil	0.5	0	0	0	
	<b>Sunshine Soup &amp; Oyster Crackers</b>	<b>15</b>	<b>PH soybean and/or cottonseed</b>	<b>1.5</b>	<b>0</b>	<b>NA</b>	<b>TBD</b>	
	<b>Giant Soup &amp; Oyster Crackers</b>	<b>15</b>	<b>PH soybean and/or cottonseed</b>	<b>1.5</b>	<b>0</b>	<b>NA</b>	<b>TBD</b>	
	Hain Oyster Crackers	15	Oleic Safflower	1	0	0	0	
	<b>Nabisco Sociables</b>	<b>14</b>	<b>PH soybean</b>	<b>3.5</b>	<b>0.5</b>	<b>1</b>	<b>1.5</b>	(hexagonal and round, ~1")
	Health Valley Crackers		soybean				0	

Product Type	Product	Sv. Size Grams	Oil(s) used	Total Fat	Sat. Fat	Trans Fat	Sat + Trans Fat	Info. Source*
<b>Cookies</b>	<b>Nabisco Oreos</b>	<b>34</b>	<b>PH soybean</b>	<b>7</b>	<b>1.5</b>	<b>3.5</b>	<b>5</b>	Kraft Website
	Nabisco Golden Uh-Oh Oreo	34	palm, high-oleic canola	7	2	0	2	
	Nabisco Oreo Reduced Fat	34	high-oleic canola, palm	4.5	1	0	1	
	Frookie Frookwich Chocolate Sandwich Cookies	31	canola	7	2	0	2	
	Country Choice Sandwich Cremes	27	high-oleic sunflower and/or safflower	5	0.5	0	0.5	
	365 Sandwich Cremes	27	canola	5	0.5	0	0.5	
	Newman's Own Newman-O's cookies	28	palm	4.5	1.5	0	1.5	
	<b>Nabisco Nilla Wafers</b>	<b>30</b>	<b>PH soybean</b>	<b>6</b>	<b>1.5</b>	<b>2</b>	<b>3.5</b>	
	<b>Keebler Golden Vanilla</b>	<b>31</b>	<b>PH soybean and/or cottonseed</b>	<b>6</b>	<b>1.5</b>	<b>NA</b>	<b>&gt;1.5</b>	
	Country Choice Vanilla Wafers	30	oleic safflower or oleic sunflower	5	0.5	0	0.5	
	<b>Archway Oatmeal Raisin cookies</b>	<b>29</b>	<b>PH soybean and/or cottonseed</b>	<b>3.5</b>	<b>1</b>	<b>NA</b>	<b>&gt;1</b>	
	Country Choice Oatmeal Raisin cookies	23	canola, high-oleic sunflower and/or high-oleic safflower'	3	0.5	0	0.5	
<b>Cookies</b>	<b>Nabisco Chips Ahoy</b>	<b>33</b>	<b>PH soybean</b>	<b>8</b>	<b>2</b>	<b>1.5</b>	<b>3.5</b>	Kraft website
	Nabisco Chips Ahoy Reduced Fat	32	High oleic canola, palm	5	1.5	1	2.5	
	Newman's Own Champion Chip Chocolate Chip Cookies	33	palm	7	3	0	3	
	<b>Nabisco Fig Newtons</b>	<b>31</b>	<b>PH soybean</b>	<b>2.5</b>	<b>0.5</b>	<b>1</b>	<b>1.5</b>	Kraft website
	365 Organic Fig Bars	38	Soybean	1	0	0	0	

Product Type	Product	Sv. Size Grams	Oil(s) used	Total Fat	Sat. Fat	Trans Fat	Sat + Trans Fat	Info. Source*
	Newman's Own Fig Newmans	38	palm	1.5	0	0	0	
	<b>Nabisco Ginger Snaps</b>	<b>28</b>	<b>PH soybean</b>	<b>2.5</b>	<b>0.5</b>	<b>1</b>	<b>1.5</b>	Kraft website
	American Natural & Specialty Brands Mi-Del Ginger Snaps	30	Canola	4	0	0	0	
	<b>Famous Amos Vanilla Sandwich Cookies</b>	<b>33</b>	<b>PH soybean and/or cottonseed</b>	<b>6</b>	<b>1.5</b>	<b>NA</b>	<b>&gt;1.5</b>	
	Country Choice Vanilla Sandwich Cremes	27	Oleic Safflower	5	0.5	0	0.5	
	Frookie Vanilla sandwich Cookie	33	soybean	6	0.5	0	0.5	
	<b>Nabisco Teddy Grahams Cinnamon</b>	<b>31</b>	<b>PH soybean</b>	<b>4.5</b>	<b>1.5</b>	<b>1.5</b>	<b>3</b>	Kraft website
	Hain Chocolate Animal Grahams	30	Oleic Safflower	3	0	0	0	
	Our Family Farm Wild Animal Vanilla Cookies	33	nonhydrogenated soybean	3.5	0.5	0	0.5	
	Hain Kidz Animal Crackers	28	soybean	2	0.5	0	0.5	
<b>Pie Crusts (Graham Cracker)</b>	<b>Nabisco Honey Maid Pie Crust</b>	<b>28</b>	<b>PH oil</b>	<b>7</b>	<b>1.5</b>	<b>3</b>	<b>4.5</b>	
	<b>Nabisco Nilla Pie Crust (not refrigerated)</b>	<b>28</b>	<b>PH soybean and/or cottonseed</b>	<b>7</b>	<b>1.5</b>	<b>3</b>	<b>4.5</b>	
	Wholly Healthy Truly Natural Graham Cracker Pie Crust (not refrigerated)	21	palm	5	2.5	0	2.5	
<b>Pie Crusts (Pastry)</b>	<b>Mrs. Smith's Deep Dish Crust (frozen)</b>	<b>1/8 pie</b>	<b>PH soybean and/or cottonseed</b>	<b>NA</b>	<b>1.5</b>	<b>NA</b>	<b>&gt;1.5</b>	
	Mother Nature's Goodies, Inc. (frozen) Whole Wheat Pie Shells	25	Canola, Soybean	6	1	0	1	

Product Type	Product	Sv. Size Grams	Oil(s) used	Total Fat	Sat. Fat	Trans Fat	Sat + Trans Fat	Info. Source*
<b>Frozen Fish</b>	Van de Kamp's Crunchy Fish Sticks	114	PH soybean	13	2.5	NA	>2.5	
	Mrs. Paul's Crunchy Fish Sticks	95	PH soybean	12	2.5	NA	>2.5	
	Ian's Lightly Breaded Fish Sticks	93	soybean	6	1	0	1	
<b>Shortening</b>	Crisco shortening	12	PH soybean and/or cottonseed	12	3	1.5	4.5	Consumer Reports 3/03
	Crisco All Vegetable Shortening zero trans	12	soybean oil, fully hydrogenated soybean oil	12	3	0	3	

**Table 2. Products That Have Been Reformulated Without Partially Hydrogenated Oil (and Trans Fat)**

Au Bon Pain	replaced partially hydrogenated oils with canola oil in muffins
Einstein Brothers	replaced partially hydrogenated oils with soybean oil (last ingredient in bagels)
Burger King	in Denmark, replaced partially hydrogenated oil with canola oil for frying
Frito-Lay	eliminated <i>trans</i> fat and is using liquid vegetable oil in numerous snack foods (Doritos, Cheetos)
KFC	some restaurants fry in liquid oil, even while most use partially hydrogenated oil
Kraft Foods	plans to reduce or eliminate <i>trans</i> fat from most of its cookies and crackers by 2004 or 2005; in 2004 announced three new varieties of <i>trans</i> -free Oreo cookies; in April 2004 announced that the partially hydrogenated oil in Triscuits was being replaced with soybean oil
Land O Lakes	replaced some of the butter with canola oil in its Spreadable Butter, which has reduced saturated fat compared to regular butter. Also, its Soft Baking Butter with Canola Oil is made primarily of cream and canola oil and is lower in saturated + <i>trans</i> fat than ordinary shortening.
Legal Sea Foods	required suppliers of crackers, frying oil, par-fried french fries to eliminate virtually all <i>trans</i> fat (Nabisco oyster crackers have ½%)
Masterfoods (U.K.)	removed <i>trans</i> fat from Mars candy bar in UK (substitute unknown)
Nestle (U.K.)	removing or eliminating <i>trans</i> fat from Toffee Crisp and Rolo candies in UK (substitute not known)
Pepperidge Farm	in Goldfish, replacing partially hydrogenated oils with sunflower and/or canola oil; plans to eliminate <i>trans</i> fatty acids from its entire bread line by the end of 2004
Ruby Tuesday	switched from partially hydrogenated soybean oil to non-hydrogenated <i>trans</i> -free canola oil for fried foods, including French fries; will be gradually shifting away from <i>trans</i> fat in cakes, crackers, and other foods as suppliers comply
Tyson	removing <i>trans</i> fat from fully cooked retail and school foodservice foods
Unilever BestFoods	Promise margarines, including <i>trans</i> -free stick margarine, which is made with liquid oil + fully hydrogenated soy oil, and I Can't Believe It's Not Butter spreads) will be free of <i>trans</i> fat by June 2004
Voortman Cookies, Ltd.	replacing partially hydrogenated soy and/or partially hydrogenated cottonseed with canola, soy, sunflower, modified palm, or palm oil (all <i>trans</i> free) in most varieties of cookies