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LIPID CLINIC NEWS

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In This Issue

Women's Health Initiative: Do We Still Recommend Eating a Low-Fat Diet?

A recent series of articles published in the *Journal of the American Medical Association* reviewed the results of the well-known Women's Health Initiative (WHI) dietary modification trial. In fact, you probably read some of the headlines, such as "Trimming the fat didn't cut their health risks." You might have wondered how this could be. Upon closer examination of the results, we came to a different conclusion.

It is true that the low-fat dietary pattern did *not* lead to significant reduction of these three diseases in this large cohort of 48,835 post-menopausal women. This was most disappointing. As it turned out, however, the low-fat diet *did not* fail. What happened was that the implementation of the low-fat diet was poorly carried out. The dietary histories (never hard endpoints because of the difficulty in obtaining accurate dietary information) showed little difference other than the use of <u>one</u> more fruit or vegetable in the low-fat group. The differences between the adherence of the low-fat diet and a control group following the usual diet were minimal, as you'll see below.

Blood Biomarkers

Most revealing were the blood biomarkers comparing values at baseline and year three for the intervention group and the control group. These hard endpoints showed little or no change from baseline, indicating that both groups were consuming similar diets. For example, plasma lutein plus zeaxanthin is a good marker of fruit and vegetable consumption. However, this blood index did not change from baseline to year three in the intervention group. Total carotenoids, alpha-carotene, beta-carotene and lycopene either changed very little or were very similar to the control group in year three.

Likewise, cholesterol and LDL cholesterol showed little change (only a -3.6 mg/dl for LDL) in favor of the low-fat intervention group, certainly denoting very little effect from the low-fat diet. In the dietary study, "the OmniHeart Randomized Trial," for comparison, LDL decreased 11.6 mg/dl from the baseline period, which indicates what really happens if a low-fat diet is actually followed.

Our Conclusion

Despite the laudable objectives of the study, the dietary differences between the intervention group and the control group were simply small, so that disease-wise, both groups turned out the same way for the three important endpoints: breast cancer, colon cancer and coronary heart disease. One cannot conclude that eating a low-fat diet did not reduce rates of these diseases, when in fact, the intervention group made minimal dietary changes.

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JAMA 295:643-654, 2006
JAMA 295:655-666, 2006

Lipid Clinic News can be found online at ***www.ohsu.edu/medicine/divisions/endo/lipidnews***

For online subscription, send your name and email address to: LCNews@ohsu.edu with "subscribe" in subject line.

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Food Labels Now List Trans Fat

Chances are, you're familiar with the term "trans fats". If you haven't noticed it on the Nutrition Facts labels before, you most certainly will now. Starting January 1, 2006, the FDA began requiring all food manufacturers to add trans fats to Nutrition Facts labels.

What's the significance of trans fats? Trans fats are formed by adding hydrogen to vegetable oil (a process called "hydrogenation") to make them more shelf-stable. They are widely used in baking and frying, and can be found in vegetable shortening and margarine – and the processed foods in which these ingredients are used. Trans fats extend the shelf life of chips, cookies, crackers, muffins, pastries, doughnuts, cakes and much more.

So what's all the fuss about? Trans fats behave similarly in the body to saturated fats by raising LDL cholesterol levels and contributing to cardiovascular disease. They can be found on the food label under the "Total Fat" heading, just under "Saturated Fat".

What does this mean for the consumer? There is good news and bad news. First, the good news. In response to the new regulations, many food manufacturers are responding by reducing or eliminating trans fats in their products. For example, Frito-Lay began frying food in corn oils that aren't hydrogenated. Kraft Foods is working on an Oreo cookie that contains no trans fat. In fact, Kraft recently announced that it has succeeded in reducing or eliminating trans fat from 650 of its products. But there is a flipside to every story. In some cases, manufacturers are using more butter or palm oil (both high in saturated fat) to compensate for the lack of trans fats. Remember, saturated fats are no better for our arteries than trans fats. Don't take a claim like "Zero Trans Fats" at face value: flip the package over and read the Saturated Fat content before making your decision.

Food manufacturers are allowed to list amounts of trans fat with less than 0.5 gram as "0" on the Nutrition Facts panel. As a result, you may see a few products that list 0 gram trans fat while the ingredient list still has "shortening" or "partially hydrogenated vegetable oil" on it. This means the food contains very small amounts (less than 0.5 g) of trans fat per serving.

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving	
Calories 260	Calories from Fat 120
	% Daily Value*
Total Fat 13g	**20%**
Saturated Fat 5g	**25%**
Trans Fat 2g	
Cholesterol 30mg	**10%**
Sodium 660mg	**28%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Protein 5g	

Vitamin A 4% • Vitamin C 2%
Calcium 15% • Iron 4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

The Bottom Line: The goal is to minimize intake of *both* trans fats and saturated fats. Filling up on Oreo cookies with zero trans fats still does not constitute a healthy diet.

For more information, visit www.cfsan.fda.gov/~dms/qatrans2.html

Going Nuts?

A Lipid Clinic patient recently asked, "I'm always hearing that nuts are good for me, but how many can I have?" Great question! Nuts are an excellent source of fiber and polyunsaturated and monounsaturated fats, which may help reduce the risk of heart disease. However, they are calorically dense and are easily overeaten. For many people, eating a can of nuts and watching the Monday night football game go hand-in-hand. If you're not careful, it could be very easy to ingest hundreds of calories from nuts while mindlessly pouring them out of the can.

So how can you eat nuts in a healthy way? One idea is to actually measure out a serving of nuts. (We've listed the calorie content of some popular nuts to give you an idea of a *reasonable* serving). Another way is to sprinkle a few nuts in your salad to give an extra crunch and nutty flavor.

How many calories are in one ounce of nuts?

An ounce of most nuts delivers 170-180 calories. We know an "ounce" is difficult to visualize, so we've listed the number of some popular nuts in one ounce.

Are some nuts and seeds better than others?

Walnuts and sunflower seeds have more polyunsaturated fat than the others, which may give them an extra cholesterol-lowering punch. However, it's not worth limiting yourself to one or two kinds of nuts. Whenever possible, choose unsalted or lightly salted nuts to limit sodium intake.

Is there an official health claim for nuts?

Yes. In 2003, the Food and Drug Administration approved a health claim for seven kinds of nuts. The claim states that eating 1.5 ounces per day of most nuts, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease.

Which nuts were included in the claim?

Almonds, hazelnuts, peanuts, pecans, pistachios, and walnuts. The agency left out Brazil nuts, macadamias, cashews, and pinyon pine nuts because they contain 3 to 5 grams of saturated fat per ounce.

How many grams of saturated fat do the approved nuts have?

The nuts that were approved contain only 1 or 2 grams of *saturated fat* (not total fat) per ounce.

Nut	Number of Nuts in 1 oz (approx. 170-180 kcals)
Almonds	20-24
Hazelnuts	18-20
Peanuts	27-29
Pecans	18-20 halves
Pistachios	45-47
Walnuts	8-11 halves

Adapted from Nutrition Action Healthletter, November 2005

Product Review

Melissa's Baby Red Beets

For many people, exposure to red beets is limited to the pickled variety found at most salad bars. If that sounds familiar and you'd like to branch out and try something new, you might enjoy "Melissa's Baby Red Beets". Available in most grocery stores, these beets are trimmed, peeled and steamed. Add to a salad or serve as a side dish, heated or cold. We like them in a salad of baby greens with a small amount of crumbled goat cheese and toasted or caramelized nuts with balsamic vinaigrette (try *Red Beet and Goat Cheese Spinach Salad* recipe on last page of this issue). Another great way to increase your vegetable intake. Enjoy!

For more information on *Melissa's Baby Red Beets*, visit www.melissas.com.

Green Garden Low-Fat Sweet Sesame Dressing

Cindy's mother adds this light sesame-flavored dressing to shredded coleslaw for a quick and easy salad that goes great with a variety of dishes. (We recently served it with the *Breaded Honey Dijon Salmon* recipe this page.) To jazz it up a bit, you could add some mandarin oranges and a sprinkle of toasted sliced almonds. At only 50 Calories and 2 grams of fat per 2 tablespoons, this dressing is great if you want a lot of flavor without all the fat in regular salad dressings. *Green Garden Low-Fat Sesame Dressing* is manufactured by Green Garden Food Products in Kent, Washington and is available in many grocery stores. For a complete listing of products and store locations, go to www.ggfoods.com.

Research Highlights

Decreasing Portion Size and Energy Density Reduces Caloric Intake

We are always interested in research that involves helping people lose weight. Barbara Rolls and her research team in the Nutrition Department at Pennsylvania State University have contributed a lot of information in this arena. Their recent study published in the *American Journal of Clinical Nutrition* looked at reducing both portion size and caloric density of meals fed to normal weight female subjects, and its effect on caloric intake of subjects. They wanted to know how much food people would eat if they were given:

1) both regular portion sizes *and* calorie levels of food
2) typical calorie levels but smaller portions (25% less)
3) lower calorie levels (25% less) but typical portions
4) both lower calorie levels *and* smaller portions (25% less each)

Subjects were given the same foods for each condition, and were allowed to eat as much of the food as they wanted. After each meal, they evaluated their hunger/fullness levels.

Here is what they found:

- When people were given *both* normal portion sizes *and* calorie levels, they ate 112% of their estimated caloric requirements.
- When they were given smaller portion sizes and typical calorie levels, they ate 101% of their estimated caloric requirements.
- With typical portion sizes but reduced calorie levels, they ate 88% of their caloric requirements
- With *both* reduced portion sizes *and* calorie levels, subjects ate only 76% of their caloric needs!

Also of interest is that subjects reported feeling full after every condition (even with reduced portions and reduced calories). They also rated the taste of all of the meals and all but two of the desserts to be "satisfactory".

Bottom Line: While it's not surprising that reducing both portions and caloric density of meals will help cut down on calories, it is very interesting that subjects actually felt full after doing so. So don't be afraid to try reduced calorie recipes and experiment with smaller portions sizes -- you just might be surprised how easy it is to cut back this way!

Breaded Honey Dijon Salmon

When it's not barbecue season, we're always looking for ways to cook fish indoors. Here is one of our favorites, an "oldie but goodie", so to speak. It's simple to prepare and is always a crowd pleaser.

4 teaspoons honey
2 tablespoons Dijon-style mustard

½ cup bread crumbs, toasted if desired
1 tablespoon chopped pecans, hazelnuts or walnuts
2 teaspoons chopped fresh parsley
½ teaspoon (or less) Lite Salt
1/8 teaspoon pepper

4 salmon fillets (6 ounces each)

4 lemon wedges

Preheat oven to 450º. In a small bowl, combine honey and mustard. In a separate bowl, mix bread crumbs, nuts, parsley, Lite Salt and pepper. Place salmon fillets in a baking dish that has been sprayed with nonstick cooking spray. Pat salmon with a paper towel to dry the top. Spread honey mustard sauce evenly over fish. Sprinkle with the crumb mixture. Bake, uncovered, 10 to 15 minutes or until salmon is almost opaque in the center. Serve with lemon wedges.

Makes 4 servings.

Calories 337	Sat. Fat 3 g	Cholesterol 112 mg	CSI 9
Total Fat 12 g	Sodium 438 mg	Fiber 1 g	

**Recipe from "The New American Diet Cookbook" by Sonja L. Connor, MS, RD and William E. Connor, MD*

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Red Beet & Goat Cheese Spinach Salad

Try Melissa's Baby Red Beets to simplify this recipe. We're always on the lookout for delicious salads and this is our latest creation. You can prepare dressing ahead of the time for quicker assembly at mealtime.

Salad:

1 bag (10 ounces) baby spinach or mixed salad greens
1 package (8 ounces) Melissa's Baby Red Beets, cut into ½ inch cubes (approximately 5 or 6 beets)
2 tablespoons walnuts, toasted *
½ cup crumbled goat cheese

Dressing (will be thick):

1/8 cup finely chopped basil leaves
1 1/3 tablespoons balsamic vinegar
1 1/3 tablespoons finely chopped shallots
2 tablespoons water
½ tablespoons honey
1 teaspoon olive oil
¼ teaspoon ground black pepper

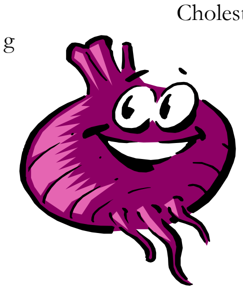
**** To Toast Walnuts:***

Preheat oven to 350º. Put nuts in a shallow pan and bake approximately 12 minutes, or until lightly toasted. Remove from oven, cool and coarsely chop.

To Assemble Salad:

In large salad bowl, assemble baby spinach, red beets, toasted walnuts and goat cheese. In a separate bowl, combine all dressing ingredients and whisk until well combined. Toss and serve immediately.

Makes 8 servings (? cups each).

~ Per Serving ~

Calories 74
Sodium 111 mg
Fiber 2 g
Total Fat 5 g
Saturated Fat 2 g
Cholesterol 4 mg
Cholesterol-Saturated Fat Index 2