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Diet vs. Lovastatin – Which Wins?

A recent study that compared diet to 20 mg lovastatin (Mevacor) showed it was a draw. We are writing about this recently reported study because it is so easy to be impressed with the very powerful statins. They have made it possible to lower LDL cholesterol to reasonable risk levels in people who have inherited very high LDL cholesterol levels. However, diet can reduce heart disease risk tremendously and reduce the amount of drug that people need to control their LDL cholesterol.

This randomized, controlled Canadian study was done to compare the effects of a special low-fat diet to lovastatin.

Particulars about the study:

- 46 healthy men and postmenopausal women
- 59 years of age; body mass index of 28
- Followed one of three programs for 4 weeks:
 - Low-fat diet, high in insoluble fiber
 - Low-fat diet, high in insoluble fiber, *plus* 20 mg lovastatin
 - Special low-fat diet high in soluble fiber, soy protein, plant sterols, almonds
- All three diets were vegetarian
- Foods were provided; subjects weighed foods and kept food records

Results:

- LDL cholesterol
 - ↓ 8% -- low-fat diet, high in insoluble fiber
 - ↓ 31% -- low-fat diet plus 20 mg lovastatin
 - ↓ 29% -- low fat diet, high in soluble fiber
- C-reactive protein (a measure of inflammation)
 - ↓ 33% -- low-fat diet plus 20 mg lovastatin
 - ↓ 28% -- low-fat diet, high in soluble fiber

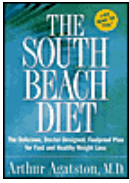
Conclusion: Adding particular foods to a typical low-fat diet can lower the LDL cholesterol and C-reactive protein (CRP) *as much as* 20 mg lovastatin. This supports eating a good low-fat, high-fiber diet.

Comments:

- What subjects thought about the vegetarian diet:
 - 14 of 36 subjects found the diet acceptable
 - 14 subjects wanted a greater variety
 - 10 subjects thought the volume of food was *too great* (subjects were supposed to eat enough to maintain their weight during the study). What does this tell us about the potential for weight loss?
 - 5 subjects wanted meat in their diets
- The five most popular foods were almonds, soy crumbles (TVP), oat bran cereal, oat bran bread and plant sterol margarine (Benecol).

The practical translation:

- Include these foods in your eating style:
 - Legumes (black beans, pinto beans, lentils, (Hint: Try the *Syrian Lentils* recipe in this issue.)
 - Oats (oat bran, oatmeal) and barley
 - Vegetables and fruit
 - Soy (soy crumbles, tofu – e.g. *Toby's Tofu Pate*)
 - Nuts – but not too many as they are half fat – sprinkle a few nuts on green salads
- Check out our recipe using soy crumbles (Beef Mushroom Spaghetti Sauce with TVP from *The New American Diet*) or substitute soy crumbles for some or all of the ground beef in recipes.



The South Beach Diet

Another low-carb diet has made its way to the *New York Time's* bestseller list. At first glance, it appears to be on the right track, promoting heart-healthy fats like canola oil and fish.

However, a closer look shows it has similarities to other low-carb diets. If you've never heard of the glycemic index, you will after reading this book; the diet is based on choosing low glycemic index foods (see article below). According to this concept, it is better to eat pound cake than watermelon because it has a glycemic index of 77 compared to 103. We have some thoughts about this!

What Do We Think?

- The South Beach Diet emphasizes healthy fats (canola and olive oils), lean meats, fish, low-fat dairy products, vegetables, and fiber – and gets rid of the “junk”.
- Portion control and exercise are not emphasized enough.
- There is a problem with judging a single food based on its glycemic index because we eat mixtures of foods. Scientific knowledge (not to mention common sense) tells us that watermelon and bananas are healthy foods. The real problem with refined carbs is they are mixed with lots of fat and/or sugar! Look for recipes and products that combine carbs with ingredients that make them tasty but not loaded with calories (e.g. extra veggies, low-fat cheese, etc). See example below.

<u>Amount</u>		<u>Fat</u>	<u>Calories</u>
Typical lasagna	1/8 recipe	22 grams	513
<i>Easy Bake Spinach Lasagna</i> (our recipe is in this issue)	1/8 recipe	5 grams	216

The Bottom Line: People will most likely lose weight as they do with any reduced calorie diet. However, they are likely to return to their old eating patterns and regain the weight. We think making lifestyle changes slowly over time and focusing on healthy food choices can result in lifelong maintenance of a lower weight.

What is the Glycemic Index?

Simply put, it's a measurement of how quickly carbohydrate in food is changed to glucose (sugar). The *theory* is that carbohydrates with a high glycemic index will quickly be changed to glucose and raise the blood sugar. This triggers a large release of insulin. The insulin pushes glucose into cells, which lowers the blood glucose and *theoretically* stimulates hunger. So, people should choose low glycemic index foods. We see problems with this theory:

- 1) The glycemic index is for single foods. Who eats just a plain white potato, with nothing on it or with it?
- 2) Insulin is perceived as the “bad guy”. Insulin is the body's normal response to eating. Without it, we're in big trouble. In fact, insulin enters the brain and actually suppresses food intake.

Warning About Low Carb Diets

When weight loss occurs, LDL cholesterol levels will tend to go down. However, when weight loss does *not* occur, the LDL (“bad guy” for heart disease) will generally increase on low-carb diets! Also, LDL and triglycerides go up in some people despite weight loss. This is happening in some of our patients. Also, neither the Atkins nor the South Beach Diet has been shown to be safe over the long term.

We think it's best to just give up the junk food, eat heavily from the plant kingdom, lightly from the lower-fat animal kingdom and sparingly from the treat kingdom.

Fat & Fructose are the Bad Guys!

According to the latest science:

- Insulin enters the brain and depresses appetite.
- Insulin stimulates leptin release, which reduces intake.

The bad news is fat and fructose do *not* stimulate insulin so they do not depress the appetite or decrease food intake.

More bad news is that table sugar is half fructose.

Further, the food industry has increasingly used high fructose corn syrup in foods, especially sweetened beverages including soda pop. Finally, liquid calories bypass usual pathways for appetite regulation, so they are super bad. (Fructose consumed in fruit is not a problem.)

And -- we continue to eat high fat diets.

Easy Bake Spinach Lasagna

An old favorite prepared in an easier way---with uncooked noodles!

- 1/4 pound ground beef (10% fat) or ground turkey breast
- 3/4 cup water
- 4 cups marinara sauce
- 1 cup low-fat cottage cheese
- 3/4 cup grated part-skim mozzarella cheese
- 10 oz frozen chopped spinach, thawed & drained
- 8 ounces uncooked lasagna noodles
- 1/4 cup grated Parmesan cheese



Preheat oven to 375°. Brown ground beef in nonstick frying pan. Add water and marinara sauce; bring to boil. Remove from heat. Combine cottage cheese and spinach in 9-X-13-inch baking dish that has been coated with nonstick cooking spray. Make two layers of marinara sauce, uncooked lasagna noodles, cottage cheese and mozzarella cheese. Top with marinara sauce and Parmesan cheese. The lasagna will be runny in order to have enough liquid to cook the noodles. Cover with foil and bake for 1 hour. Remove from the oven and let stand 10 minutes before cutting into squares. Makes 8 servings.

Per serving:	
Calories: 216	Total Fat: 5 gm
Sodium: 352 mg	Saturated Fat: 2 gm
Fiber: 2 gm	Cholesterol: 18 mg
Lutein/Zeaxanthin: 1828 mcg	Cholesterol Saturated Fat Index: 3

The Scoop on Low-Carb Products

Remember when . . . nutrition experts advised low-fat eating back in the 90's? Food manufacturers responded with low-fat and fat-free versions of many of the foods we love—cookies, pastries, peanut butter, ice cream—you name it. The result: we *increased* our calorie intake because we mistakenly looked at these foods as calorie free (which they're not). Now, with the popularity of low-carb diets, food manufacturers are once again jumping on the bandwagon and producing low-carb products ranging from beer to chocolate to, yes, even milk!!! (Since 2000, 816 new products now make the low- or no-carb claim).

So how do they remove carbs from food? In baked goods, wheat flour is removed and replaced with higher protein ingredients such as soy flour or wheat protein. Fiber and other fillers may also be added, along with high-fat ingredients like nuts. It's no surprise that low-carb foods often contain a similar number of calories as their high-carb counterparts!

In sweets, sugar is usually replaced with “sugar alcohols” such as sorbitol or malitol, which contain half the calories. They can cause abdominal discomfort, cramps and diarrhea. In milk, the carbohydrate (lactose) is replaced with artificial sweeteners and protein. In beer, they boil the grain mash longer. This changes carbs into sugars that can be fermented into alcohol. This results in fewer carbs but equal flavor.

OK, so what about calories? We all know that when it comes to weight loss, calorie intake is the bottom line. Moreover, there is no scientific basis for the quest for low-carb foods.

<u>Comparisons</u>	<u>Calories</u>	<u>Carb (g)</u>
Miller Light Beer (12 oz)	96	3.2
Michelob Ultra Low Carb Light Beer	95	2.6
Pillsbury Muffin Mix (1 muffin)	170	27
Atkins Quick Quisine Muffin (1)	160	9
Reese's Mini Peanut Butter Cups	153	16
Reese's Mini Sugar Free “ “	121	17
Regular Penne Pasta (1 cup)	197	40
Low-Carb Penne	130	7

Here's What We Think:

- The numbers aren't different enough to make much of a dent in your waistline, but they may dent your pocket book. Most low-carb products cost 2 to 10 times more.
- If you reduce calories to lose weight, you shouldn't focus on foods like beer, muffins and candy or you will be deficient in essential nutrients.
- Eating these products on a low-carb diet may backfire. One of the reasons low-carb diets work is that they decrease variety, which leads to eating fewer calories.
- Using technology to create low-carb foods may have the same result as the low-fat product craze of the 90's.
- We can think of one advantage to some of these products, such as pasta: more fiber – but this can be obtained in healthier ways.
- Finally, there is no need for low-carb foods.

Cooking Tips of the Month

Tip #1. At *Trader Joe's* we are fond of the pre-cut and peeled bags of butternut squash and yams (sold separately). They're found in the produce section in 1-pound bags and are very convenient for immediate use, or for throwing in the freezer and pulling out for later use. Here are a few ways we use these vegetables:

- Steam (or boil) and mash them
- Add to soups or pasta dishes (we just discovered that yams are delicious in lasagna!)
- Use in your favorite holiday yam dish
- Any recipe that calls for butternut squash or yams—we like Butternut Squash Enchiladas with Spicy Peanut Sauce (*The New American Diet Cookbook*)

If you don't live near a *Trader Joe's*, look in your local store's freezer section, where we often find frozen butternut squash.



Tip #2. Do you still have leftover eggnog (the light version, of course)? One afternoon during the holidays, we wondered what would happen if we put eggnog in an ice cream maker. We bought some light eggnog and froze it in our Donvier Frozen Dessert Maker. It took only 30 minutes and the results were delicious—it was thick and creamy like ice cream with fewer calories and much less fat!

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Syrian Lentils With Tomatoes

Serve as a main entrée or as a side dish.

2 quarts water
1 cup uncooked lentils
1 tablespoon oil
2 cups finely chopped onion
1 cup finely chopped green bell pepper
1/2 cup chopped pimiento, drained
2 cups chopped tomatoes
1 teaspoon cumin
3/4 teaspoon turmeric
1 teaspoon (or less) *Lite Salt*
1/8 teaspoon cayenne pepper
1/4 cup chopped cilantro

Bring water to a boil. Add lentils and simmer 20 minutes, or until lentils are tender. Drain and set aside. Heat oil in skillet and sauté onion and bell pepper until onions are wilted. Stir in pimiento, tomatoes and cooked lentils. Cook, uncovered, over low heat 30 minutes, stirring occasionally. Add cumin, turmeric, *Lite Salt* and cayenne pepper. Garnish with cilantro.

Makes 5 cups.

PER CUP:	TOTAL FAT 4 gm
CALORIES 205	SATURATED FAT trace gm
SODIUM 210 mg	CHOLESTEROL 0 mg
FIBER 8 gm	CHOLESTEROL-SATURATED FAT INDEX trace

