

CALORIE INFLATION *by Ann Gerhardt, MD* (05/2007)

Bottom line at the top: Cheap sugar from corn and oil from soybeans has reduced the cost of high calorie food and made junk food possible. People now complain that healthy food costs more than does junk food, and use that as an excuse to eat a diet that raises blood pressure, cholesterol and weight. It's a bunch of self-deluding bunk ... See below for proof that a healthy, inexpensive diet is possible.

Calorie for calorie, junk food is cheaper than fruits and vegetables. But who proclaimed that he who eats the most calories for the least money wins???

A dollar buys five times as many calories from chips than from carrots. Does that mean we eat 1200 calories of chips because they only cost a dollar? Just because it represents a 'bargain' in money, need we bargain away our waist line and health?

Since high-fructose corn syrup entered the market and corn and soybean agriculture have been subsidized by the U.S. government, vast quantities of sugar and oil have made cheap junk food possible. The food industry has created foods and beverages in which cheap sugar and fat form the bulk of the product. Any whole food contained in the product merely adds an identity (as in *potato* chip or *corn* chip) and purely incidental nutritional value.

The steep rise in corn sweetener consumption is largely due to high-fructose corn syrup, a low-cost substitute for sugar in beverages and manufactured foods. High-fructose corn syrup (HFCS) didn't exist prior to the 1960's, when food chemists figured out how to enzymatically convert glucose to the sweeter fructose. Corn is cheap and grown in mega-amounts, and in the 1970's corn processors developed HFCS mass-production methods. HFCS thus enables the food industry to make very sweet products at a fraction of the cost of naturally sweetened foods.

Junk foods, sweetened with high fructose corn syrup and made to taste rich with cheap soybean oil, are more "energy dense" than fresh foods. They contain less water and fiber but more calories than unprocessed vegetables, beans, grains and fruits. Though one might think that eating heavier food would fill you up quicker, the opposite is true. Studies of satiety have proved that eating foods high in water and fiber (vegetables, beans) create a feeling of fullness sooner, so you eat less. Eating calorie-dense foods packs on the pounds more easily because the foods have more calories, but are slow to turn off the urge to eat.

Instead of allowing cheaper food to reduce our food budget, however, Americans eat more food every year.

The total amount of food entering the market each year increased 16 percent, from 1,675 pounds in 1970 to 1,950 pounds in 2003 per U.S. resident.

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HEALTHY CHOICES FOR MIND AND BODY

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The increase in food available for consumption resulted in a corresponding jump in daily calories, from 2,234 calories per person in 1970 to 2,757 calories in 2003 (after adjusting for plate waste, spoilage, and other food losses). This increase was not isolated to a few food groups. Fats and oils, grains, vegetables, and sugars/sweeteners led the way.

According to the Corn Refiner's Association, annual per capita HFCS consumption increased from 45 to 66 pounds per year between 1985 and 2005. Even with the mid-1990s push to cut dietary fat, added fats and oils accounted for an extra 216 calories per person per day.

So high calorie manufactured food is cheap. Is that why people spend their 75¢ on 250 calories of Snickers bar instead of 18 calories of spinach? Even though 18 calories of spinach will last for 2 ½ salads and a Snickers is gone in a few minutes, more people buy the candy, probably because of taste. And that's probably why people use the "expensive" excuse for not buying healthy food.

In fact, **healthy food need not cost any more than junk food.** Buying 'fast' food at the deli section of the supermarket, depending on your choice, may be no more expensive than the Carl's Jr or Burger King. Just make it healthy by purchasing nothing with mayo. In the market, what counts is how you shop. Berries, scallops and artichokes are expensive, but the profusion of pre-prepared junk freezer foods are also. At the end of this article is a list of healthy foods and their cost per serving.

I compared two hypothetical day's worth of meals, each providing 75 grams of protein. One contains foods that provide a near perfect balance of all the food groups and essential micronutrients, and the other is full of high calorie, but standard American fare.

The "healthy day" consists of: 1 c. oatmeal with 2% milk, 1 tsp brown sugar and 1 Tbsp raisins, 1 egg, 1 slice lean turkey bacon and coffee for breakfast; a peanut butter and jelly sandwich (2 Tbsp PB), 2% milk and a 2 cup spinach salad with sliced onion, radish and tomato and an oil and vinegar dressing for lunch; an apple, 1 oz. peanuts and a cup of tea for a snack; and 3.5 oz salmon, a baked potato with plain yogurt, a small cup of homemade bean soup, 1 cup of cooked greens with

onions and mushrooms and a cup of milk for dinner.

The junk food day consists of: 1 c. Fruit Loops with whole milk, 1 egg, regular bacon and coffee for breakfast; a ham and cheese sandwich, 12 oz soda and 2 oz Dorritos for lunch; a candy bar for snack; and 2 cups spaghetti with sauce, 5 oz meatballs and 12 oz soda for dinner.

2 ¢	rice purchased in bulk
25 ¢	½ c. cooked greens
37 ¢	2 cups spinach salad with chopped veggies
10 ¢	½ c. cabbage
20 ¢	½ c. broccoli
25 ¢	4 oz. melon
75 ¢	large apple
29 ¢	¼ c. raisins

I analyzed each day using standard portions (according to package labels and dietitian standards), recognizing that few people actually eat standard portions, but I wanted to compare the two diets on a level playing field. I used prices from my neighborhood Safeway market and the Food Co-op, assuming the purchase of bulk foods or the largest package available.

The 'healthy' day weighs in at 1860 calories and costs \$5.07, which is 0.27 cents per calorie. The junk food day packs on 2440 calories and costs \$4.90, which is 0.2 cents per calorie. If the junk food day includes a stop at McDonald's for a chicken McNuggets happy meal instead of the ham and cheese sandwich, the day has about the same number of calories, but costs \$8.16.

Contrary to popular opinion, the healthy day is not much more expensive than the calorie-laden, nutrient-poor day. If you want to quibble that the excess 17 ¢ cost for the healthy day is prohibitive, have at it. The point is that the perception that healthy food is *much* more expensive is ludicrous.

Both days used homemade meals: Using pre-prepared boxed or frozen meals of either healthy or junk food jacks up the price. Eating in restaurants clearly increases food cost, and where one eats determines how much for both types of food. Waste makes a difference also. Too many people let their produce rot in the refrigerator, increasing the amount spent per consumed serving. With prudent purchases, healthy food is attainable on a budget.

Cost of a standard serving of a few healthy foods (in Sacramento on May 20, 2007):

14 ¢	1 egg
17 ¢	2 Tbsp raw peanut butter
30 ¢	1 oz. sunflower seed kernels
25 ¢	8 oz. milk
50 ¢	8 oz. yogurt (if purchased as a quart)
53 ¢	3.5 oz. Atlantic salmon
80 ¢	4 oz. lean ground turkey
14 ¢	Lean turkey bacon
33 ¢	½ c. canned pinto beans
12 ¢	½ c. navy beans (made from dry beans)
9 ¢	1 c. barley (made from dry barley)
12 ¢	oatmeal
43 ¢	muesli
40 ¢	1 medium sweet potato
15 ¢	1 medium potato