Calorie Counting

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Introduction

Over the years I have discovered that I have inherited two undesirable health tendencies: high cholesterol and high blood pressure, also called hypertension. Both conditions can cause long-term heart problems (Larson, 1990). I have kept my cholesterol at reasonable levels for years by taking a statin drug called Lipitor.

In the last two years my doctor has made me aware of the fact that my blood pressure is slowly increasing (Brown, 2004). Adding a pound or two here and there as I got older and my on again/off again exercise routine did not help my cause. In addition, the U.S. Preventive Services Task Force recently changed its definition of high blood pressure by lowering what was considered acceptable (2003). As a result, during my annual physical in the spring of 2003, my doctor gave me an ultimatum: bring your blood pressure down by losing weight and exercising or start taking blood pressure medication.

Most of my friends and family thought that since I was already taking medication for high cholesterol, taking an additional pill or two for high blood pressure would be no big deal. This was not the case. I have learned through the trials and tribulations of finding the right statin drug and medication level that taking regular medications is inconvenient. Some medications have to be taken a certain number of minutes before eating, while others need to be taken on an empty stomach. I realized that I had started down the slippery slope of taking a boxful of pills every day and having it control my life. I did not want to be one of those "old" people who, if it was noon, needed to be taking his blue, green and yellow pills.

Starting in the spring of 2003, I got serious about my weight and exercise program. I committed myself to exercising at least three times a week by walking, doing cross-country skiing, riding my bicycle or swimming. I also went on a variation of the Atkins diet called the South Beach diet. It was all the rage and offered the appeal of eating all the protein you wanted as long as you severely reduced your consumption of carbohydrates. I lost over 15 pounds and was able to bring my blood pressure to within reasonable levels (just barely) for my annual physical in the spring of 2004. It also became apparent that low carbohydrate diets were not a long-term solution for me. I like potatoes, breads and pastas too much to remove them permanently from my diet.

While I have never made a formal study of dieting, I do know from biology classes that everything eventually comes down to calories—which are a measure of heat energy (Quagliano and Vallarino, 1969). If you consume fewer calories through eating than you burn during the day, you will lose weight. I have begun to realize that if I were going to make a life long commitment to keeping my weight and blood pressure down, I would have to know how many calories were contained in 12 ounces of Mountain Dew (170 calorie) or a Taco Supreme (220 calories).

Method

My calorie-counting project coincided with the personal behavior modification projects running in my psychology class from October 1 to November 24, 2004. Baseline data collection ran from October 1 to October 13. The actual intervention in which I tried to control my calorie consumption ran from October 15 to November 23.

My project goal was to loose ten pounds. To accomplish this project goal, I set a daily calorie consumption goal of 2200 calories. I used the calorie-count.com Web site to establish this

daily calorie consumption goal based on my age, height, starting weight and no daily exercise. If I exercised during the day, I added 200 calories to my daily calorie consumption goal. Acceptable exercises were any of the following:

- 30 or more minutes of continuous walking outside.
- 30 or more minutes of continuous bicycling outside.
- 20 minutes of brisk walking on a treadmill as a rainy day alternative.

My contingencies during the intervention were as follows: If I missed my daily calorie consumption goal one day, I would not watch any sports on TV the following Saturday. If I missed my goals for two days, I would not watch any sports on TV the following Saturday and Sunday. If I missed my goal for three days, I would not watch any sports on TV the following Friday, Saturday and Sunday. Finally, if I missed my goal four days, I would not watch sports on TV the following weekend and give my psychology students each 25-bonus points.

I also wanted a reinforcer if I met my project goal of losing 10 pounds, but I could not decide on anything at the start of the project. However, one week into the intervention I found a Terry's Dark Chocolate Orange (960 calories) buried in our pantry and decided that I would "eat the whole thing" if I had lost 10 pounds by November 23.

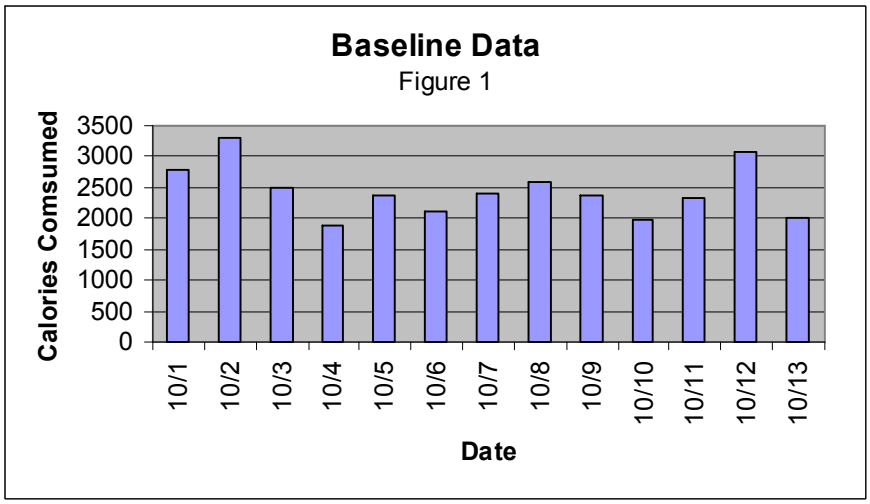
Up front I knew there were three days during the intervention that would be impossible for me to keep an accurate calories count, so these days were not to be included in my weekly contingency:

- Saturday, October 16 – homecoming
- Sunday, October 17 – my brother-in-law's reception
- Saturday, October 23 – dinner party

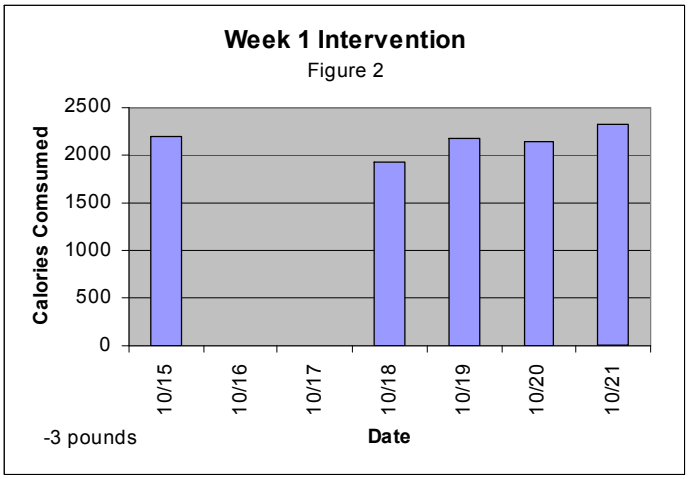
My wife also watched her calorie consumption at this time and monitored my behavior.

Results

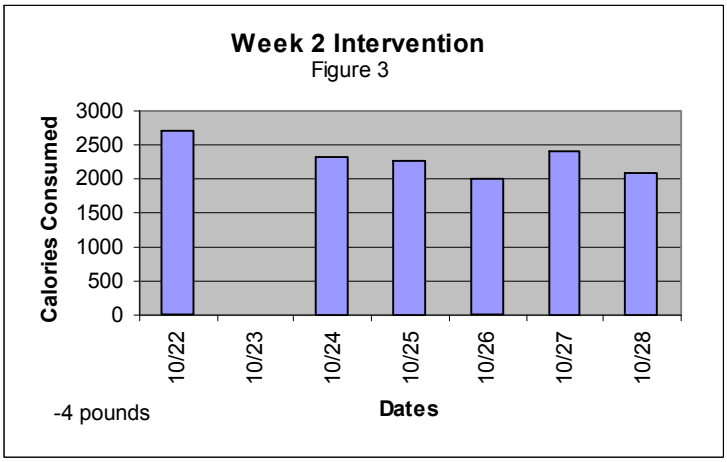
Baseline data was keep for 13 days from October 1 to the 13. These days were used to get a data collection routine established for recording my daily calorie consumption. It meant that I had to purchase a book that listed the calories for common food items like meat, cheeses, bread and etc., as well as finding the calorie count for my favorite fast foods from Taco Bell, Lee's Chicken, Subway Subs, etc. The latter was achieved by finding the calories associated with different food items in the nutrition literature provided in the stores and by using the company's Web site. As shown in Figure 1, I consumed on averaged 2439 calories per day during baseline.



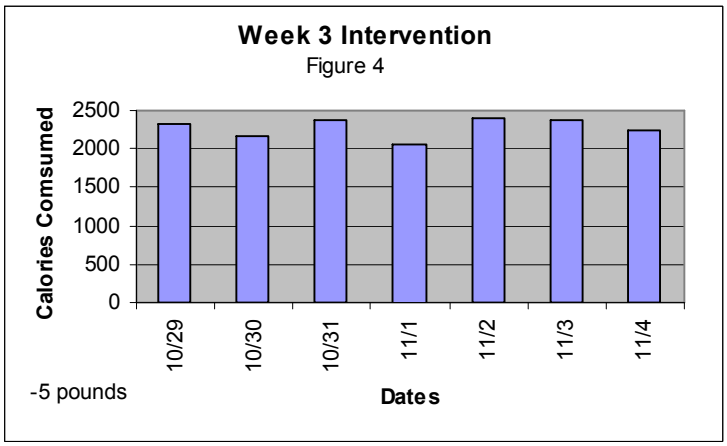
During the first week of the intervention, see Figure 2, I consumed on average 2153 calories a day. However, this average was only based on five days of data since two days, October 16 and 17, were days that I had pre-arranged as not counting. I met my daily calorie consumption goal all five days, lost three pounds and exercised on four days.



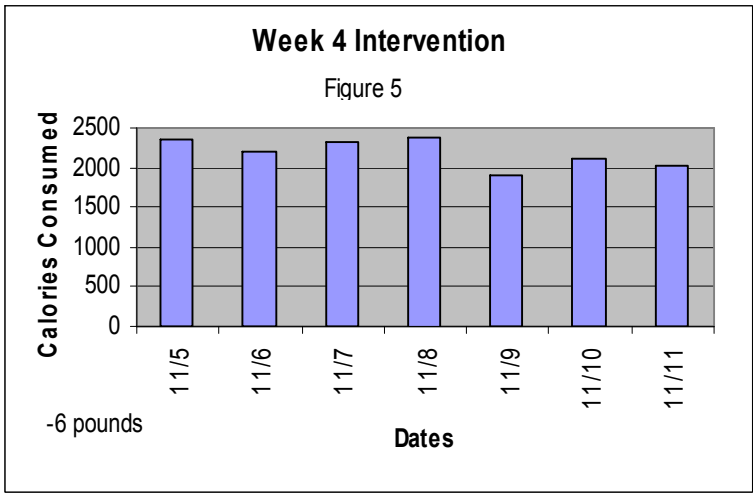
The second week of the intervention included the last of the prearranged days that were not counted as part of the project—October 23. During this week I consumed on average 2299 calories for the six days. As shown in Figure 3, I exercised six days this week and was down a total of four pounds. It should also be noted that I did not meet my goal on Friday and as a result did not watch sports on TV the following Saturday and missed an exciting University of Michigan/Purdue University football game.



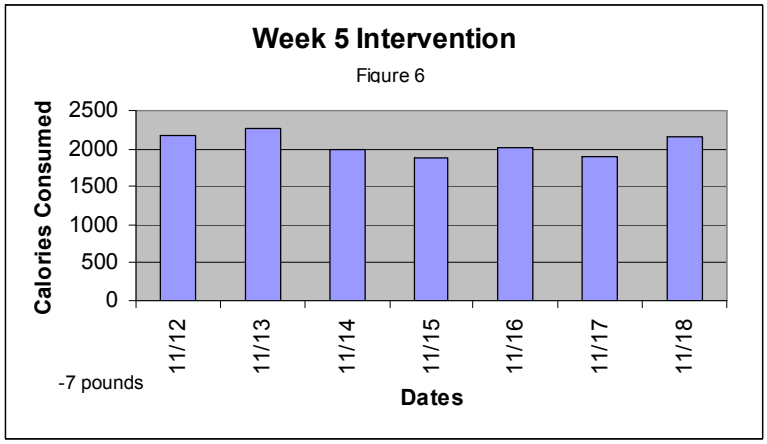
Week 3 of the intervention included calorie counts for all seven days--see Figure 4. During this week I consumed 2274 calories per day, met all my daily calorie consumption goals and exercised on six days. By the end of the week I was down a total of five pounds.



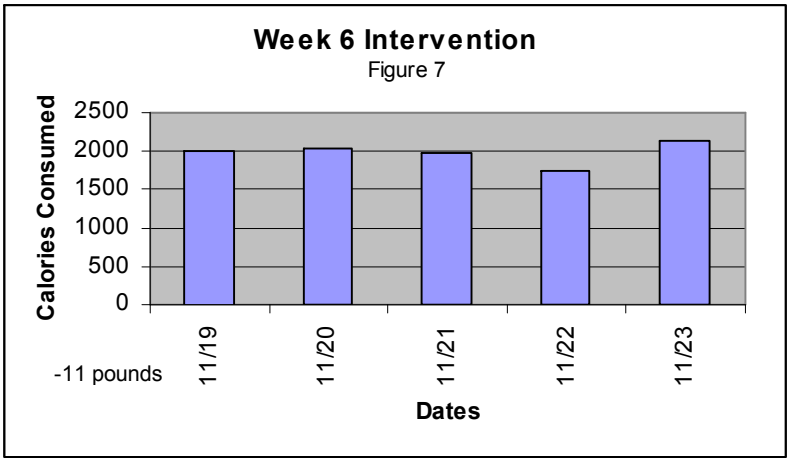
For week 4 of the intervention, shown in Figure 5, I consumed 2186 calories on average each day and exercised seven days. I met my daily calorie consumption goals everyday and was down a total of six pounds.



I exercised all seven days during week 5 and consumed on average 2056 calories—see Figure 6. I met my calorie consumption goals for the week and I was down a total of seven pounds.



Week 6 was the last week of the intervention, which ended on Wednesday so it only included five days as shown in Figure 7. For these last days I severely limited my calorie intake as part of my final push to lose 10 pounds and consumed on average 1977 calories. I exercised for a total of four days out of five. I met my calorie consumption goals all five days this week and lost a total of 11 pounds over the course of the intervention, which met my overall project goal.



Discussion

I met my overall project goal of losing 10 pounds and I am looking forward to eating that dark chocolate orange. From a health maintenance point of view, this project made me aware of how my eating behaviors relate to calorie consumption and how the calories I consume relate to my weight.

Some lessons had to be learned the hard way. The Friday during the Week 2 intervention when I went over my calorie consumption goal started out bad and I was never able to recover. My wife and I ate out together for breakfast and I tried a new breakfast special. I knew at the time I was eating this breakfast that it contained a lot of calories and I had the waitress ask the cook about the main ingredients and quantities. Unfortunately when I computed the calories for that breakfast later in the day, breakfast totaled over half of my calorie allotment for the day. Even with a moderate lunch, dinner and no snacks I went over my goal. As a result, I learned the hard way that to be successful on this diet I had to eat very conservatively in the mornings and early afternoons.

Another lesson that I learned was that the real calories are in the condiments. For example, a salad without cheese and meat is very low in calories until you put on almost any salad dressing. I found out much to my horror that two tablespoons of a standard ranch or thousand island dressing is easily over 100 calories and can double the calorie count of a good size salad. The same can be said of butter, sour cream, catsup and even the "dipping" sauces you are given for chicken or French fries.

The bottom line is that if you want to lose weight, you are going to be hungry during some part of the day. The trick is to be prepared for it and have coping behaviors ready to handle

it. Go for a walk, take a nap or do something to take you mind off your hunger for an hour or two. If you find a way to do it, you can lose weight.

References

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