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## Supermarket Price Check — Healthy Can Be Less Expensive!

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*These authors-turned-detectives set out to crack an ongoing case: Can consumers choose food that is both healthy and wallet-friendly?*

Have you ever wondered why so many Americans regularly select foods that are low in nutrient density? Many people give the following reasons: taste appeal, convenience, insufficient time to prepare healthy food, and pleasure eating sweet, salty, or high-fat food. Some individuals firmly believe less nourishing food is less expensive than healthy food. Quite frankly, several healthcare professionals believe this to be true as well. What is the correct answer? Which foods are less expensive: nourishing choices or less nourishing choices?

This is an important question to answer because many dietitians give advice to disadvantaged and impoverished families regarding food selection. Dietitians in these counseling sessions frequently encounter the common response that nourishing food is too expensive. For these reasons, it is crucial that the advice given be based on factual knowledge, not speculation.

The most recent National Health and Nutrition Examination Survey published data indicating that Americans are receiving roughly 30% of their kilocalories from nonnourishing food.<sup>1</sup> More than 30% of the total daily caloric intake originates from the following food sources:

- sweets and desserts;
- soft drinks and alcoholic beverages; and
- salty snacks and fruit-flavored drinks.<sup>1</sup>

Soft drinks alone provide 7% of the total daily caloric intake.<sup>1</sup> None of these choices is an excellent source of vitamins, minerals, fiber, or protein. In contrast, nourishing foods such as vegetables and dairy products comprise only 6% and 7%, respectively, of the total kilocalorie contribution to Americans' diets.<sup>1</sup>

Even though dietitians agree that vegetables, milk, and cheese are nutritious foods compared with sodas, cookies, and chips, there is ongoing disagreement concerning the average cost of the two food categories.

### It's Time to Investigate

The primary purpose of our investigation was to compare the price of several common snacks and beverages. In this study, the specific prices of nourishing and less nourishing choices were compared for the following foods:

- sweet snacks;
- salty snacks;
- low-fat and high-fat dips; and



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- beverages.

A secondary purpose was to consider the food's health benefit.

A predetermined list of common, less nourishing snacks was prepared. The food choices included sweets, candy bars, salty snacks, high-fat dips, and beverages that individuals typically consume after school or during the evening. A comparable list of nourishing snacks and beverages from the same categories was also prepared.

Both lists were taken to a regional supermarket in Waco, Tex., and the prices were recorded for each item. In some cases, the serving size information was recorded to determine the number of servings per package. The individual serving price was determined by dividing the total purchase price by the number of servings in each package.

The FoodWise computer software program was used to determine the caloric content of the snacks and beverages.<sup>2</sup> The dietary fat and sodium content was also determined by using the FoodWise program.

### **Price Check, Aisle Three**

The price comparison for sweets, salty snacks, various dips and food for the dips, and beverages is shown in Tables 1-4, respectively. The foods are categorized by nourishing choices and less nourishing alternatives. The average price for nourishing sweet snacks is \$0.40 per serving and the average price for less nourishing sweet snacks is \$0.53 per serving. Candy bars average \$0.51 per candy bar.

The range of kilocalories for the nourishing snacks is 42 to 93 kilocalories per serving, which is considerably lower than the range of kilocalories for the less nourishing snacks (91 to 360 kilocalories) or the candy bars (118 to 475 kilocalories). (See Table 1.)

The average price for nourishing salty snacks is \$0.18 per serving and the average price for less nourishing salty snacks is \$0.32 per serving. The kilocalories, sodium content (milligrams), and fat grams are considerably lower among the nourishing salty snacks compared with the less nourishing choices. (See Table 2.)

The average price for low-fat dips is \$0.23 per serving and the average price for high-fat dips is \$0.40 per serving. The foods selected for accompanying the dips cost the same (\$0.24 per serving). There is, however, a noticeable difference in kilocalorie and fat content among the low-fat and high-fat dips and the foods that accompany the dips. (See Table 3.)

The average cost for nourishing beverages is \$0.26 per serving, compared with \$0.40 per serving for less nourishing beverages. The kilocalorie range for the two categories is approximately the same. However, the nourishing beverages provide one or more of the following nutrients: vitamins A, C, D, riboflavin, folate, calcium, iron, potassium, and protein. In contrast, the less nourishing beverages provide only kilocalories, sugar, or alcohol. (See Table 4.)

### **Translating the Results**

The calculations from this study indicate that nourishing snack choices are less expensive than less nourishing choices. In all four categories (sweets, salty snacks, dips, and beverages), the nourishing choices are the least expensive. Even though the price difference between the snacks is minor, the trend is consistent and helpful for staying within a limited food budget.

The information from this study could benefit healthcare professionals in several venues. For example, public health dietitians and Women, Infants, and Children nutritionists could use this information in counseling sessions. Pediatricians may use this information when providing advice concerning appropriate food selection for children. Similarly, school foodservice personnel frequently make recommendations regarding after-school snacks. Healthcare professionals who teach weight control classes may use this information when they prepare lessons on snack selection.

The data from this study could also be integrated with the Thrifty Food Plan (TFP) from the USDA.<sup>3</sup> The TFP is a comprehensive national program that provides healthy, affordable menus to food stamp program recipients. The menus demonstrate that nutritious food can be included within a modest budget. The information from this study is both useful and supportive toward meeting a TFP's objectives.

Some assumptions and limitations to this study need to be acknowledged. First, food prices vary between geographic locations, various supermarket chains, and seasons. Second, the foods and beverages selected are a subset of all the choices available in the supermarket. Finally, all the calculations were based on single servings. The prices would be higher if two or more servings were required for a satisfying snack.

Despite this study's limitations, it is one of the first studies to attempt to answer the question of whether there is a consistent relationship between the price of various snacks and beverages and their nutrient content. Future research should focus on whether nutritious meals are more expensive than less nourishing meals. Research of this type, combined with the findings from this study, would allow healthcare professionals to offer nutrition advice based on financial constraints.

Food selection is a multifaceted decision for a family. While everyone acknowledges that there is pleasure in eating delicious food, there is also pleasure and reward in good health and nutritional well-being. The challenge lies in deciding where the boundaries of personal responsibility and food enjoyment begin and end.

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