

# Quiz Policies

## **Eligibility**

The NCSF online quizzes are open to any currently certified fitness professional, 18 years or older.

## **Deadlines**

Course completion deadlines correspond with the NCSF Certified Professionals certification expiration date. Students can obtain their expiration dates by reviewing either their certification diploma or certification ID card.

## **Cancellation/Refund**

All NCSF continued education course studies are non-refundable.

## **General Quiz Rules**

- You may not have your quiz back after sending it in.
- Individuals can only take a specific quiz once for continued education units.
- Impersonation of another candidate will result in disqualification from the program without refund.

## **Disqualification**

If disqualified for any of the above-mentioned reasons you may appeal the decision in writing within two weeks of the disqualification date.

## **Reporting Policy**

You will receive your scores within 4 weeks following the quiz. If you do not receive the results after 4 weeks please contact the NCSF Certifying Agency.

## **Re-testing Procedure**

Students who do not successfully pass an online quiz have the option of re-taking. The fees associated with this procedure total \$15 (U.S) per request. There are no limits as to the number of times a student may re-test.

## **Special Needs**

If special needs are required to take the quiz please contact the NCSF so that appropriate measures can be taken for your consideration.

# Quiz Rules

## **What Do I Mail Back to the NCSF?**

Students are required to submit the quiz answer form.

## **What do I Need to Score on the Quiz?**

In order to gain the .5 NCSF continued education units students need to score 80% (8 out of 10) or greater on the CEU quiz.

## **Where Do I Mail My Quiz Answer Form?**

You will mail your completed answer form to:

**NCSF**

**Attn: Dept. of Continuing Education**

**5915 Ponce de Leon Blvd., Suite 60**

**Coral Gables, FL 33146**

## **How Many CEUs Will I Gain?**

Professionals who successfully complete the any continuing education quiz will gain .5 NCSF CEUs per quiz.

## **How Much does each quiz cost?**

Each quiz costs the student \$15.00.

## **What Will I Receive When The Course Is Completed?**

Students who successfully pass any of the NCSF online quizzes will receive their exam scores, and a confirmation letter.

## **How Many Times Can I Take The Quizzes For CEUs?**

Individuals can take each NCSF quiz once for continuing education credits.



# Sugar Exposed!

## The Implications of a Sugar-Rich Diet

One hundred years ago the average individual intake of simple sugar was less than 10 lbs. per year. Today's estimates suggest the average person in the United States consumes over 100 lbs annually. So much sugar is consumed by the average American that many diets now have sugar intakes representing 50% of their carbohydrate intake for the day. The simple sugars come from two primary sources; sucrose generally represents 25% of the diet and high fructose corn syrup contributes about 19% of calories. These numbers dramatically exceed health recommendations.

According to the World Health Organization only 10% of the diet should come from simple sugar. This equates to approximately **12 teaspoons (48 grams)** of sugar per day based on an average 2000-calorie diet. Many experts want that number to decrease to **10 teaspoons (40 grams)** and require labels to disclose the percentage of the Daily Value a food provides. Ten teaspoons of sugar reflects about half of what many people consume everyday.

At present, the USDA recommends:

- 24 grams a day (6 teaspoons) if you eat 1,600 calories
- 40 grams (10 teaspoons) for a 2,000-calorie diet
- 56 grams (14 teaspoons) for a 2,400-calorie diet, and
- 72 grams (18 teaspoons) for a 2,800-calorie diet.

Most people have no idea that they consume so much sugar and even less have any idea where it is coming from. Reducing the nationwide intake of sugar would be very difficult because of the fact that sugar is hidden in so many foods. For instance, a seemingly healthy snack such as low-fat yogurt has over 50% of a day's worth of added sugar. Enjoy a 12 ounce glass of orange juice and most of your dietary sugar is accounted for. Consume a bowl of raisin bran for breakfast (1 cup) and you have met 50% of your sugar recommendation for the day. Even macaroni and cheese has nearly 20% of its calories coming from sugar.

It seems as though sugars are hidden everywhere. A

basic American staple such as a hot dog and baked beans provides a surprising amount of sugar for the day. The baked beans have four teaspoons of sugar alone; its ingredients include molasses, sugar, fructose, and brown sugar. Even the hot dog and bun have sugar added. Want some ketchup on your dog? Add more sugar (ketchup is one-third sugar).

Food	Sugar grams per serving	Percentage of Calories
Milk Shake (16 oz)	84	58%
Sweetened Peaches (1 cup)	52	100%
Fruit Smoothie (16 oz)	42	84%
Piña Colada (6.8 oz)	46	36%
Applesauce	42	86%
Cola	39	100%
Lemon Meringue Pie	37	48%
Vanilla Ice Cream	36	54%
Low Fat Frozen Yogurt	35	76%
Cranberry Juice (8 oz)	34	100%
Plantain (raw)	27	59%
French Toast Sticks (5 sticks)	26	20%
Dates (5)	26	96%
Low Fat Chocolate Milk	25	62%
Coffee Liqueur (1.5 oz)	24	50%
Hot Chocolate (water)	21	67%
Pop Tarts	20	45%
Granola Cereal Low Fat	17	35%

Note: Sometimes sugar quantities are expressed in teaspoons. One teaspoon is about 5 grams or 20 calories.

Finding all the sugar should be relatively easy; simply read the label. But it becomes a bit more complicated than that. Although the nutrition label provides some information, it is not the only information that needs to be reviewed. The

ingredients label should be analyzed for sugar and its equivalents, some of which include sucrose, high-fructose corn syrup, corn syrup, dextrose, glucose, fructose, maltose, honey, and molasses. Additionally, if you see any of these ingredients listed on a food label, the food has added sugar. Some common added sugar forms:

- 
- Beet Sugar
  - Brown Sugar
  - Cane Sugar
  - Confectioner's Sugar
  - Crystallized Cane Juice
  - Dextrose
  - Fructose
  - Evaporated Cane Juice
  - High-fructose Corn Syrup
  - Honey
  - Invert Sugar
  - Maltodextrin (or dextrin)
  - Maple Syrup
  - Molasses
  - Raw Sugar
  - Sucrose (table sugar or white sugar)
  - Turbinado Sugar

Identifying the sugar is only half of the problem. The other half is reducing the quantities that are consumed in the diet. Most people get the majority of their simple sugars from beverages and snacks. Soda, fruit juices, fruit drinks, energy drinks, and flavored beverages are all loaded with sugar. For most of them, the sugar represents 100% of the calories. Snacks that tempt the taste buds such as cookies, pies, doughnuts, and pastries are another major contributor to daily sugar intakes. Even the fat-free foods can be rich in sugar. In many cases manufacturers replace fat calories with sugar so the food remains desirable to the palate.

The first step in reducing sugar is to address the obvious. Limiting or removing foods containing large quantities of refined sugar can have a dramatic impact at the end of the week. Steps to reduce sugar in the diet include:

- Cutting back on soft drinks and flavored beverages such as fruit "drinks".
- Avoid beverages that end in "ade" or "cocktail".
- Limit consumption of candy, cookies, cakes, pies, doughnuts, energy bars, pastries, and other sweet baked goods. Remember, the phrase "Fat-Free" on the package does not mean "Calorie-Free." Fat-free cakes, cookies, and ice cream can have the same added sugar as their fatty counterparts. Some may have even more.
- Avoid consuming breakfast cereals that have more than ten (10) grams of sugar per serving and know the

appropriate serving size.

- Limit intakes of any kind of frozen sweets including ice cream, frozen bars (including frozen fruit bars made from juice), milk shakes, and frozen yogurts.
- Avoid restaurant dessert foods. Their calories often double the homemade version.
- Avoid fruits in syrup. Only consume whole fruit products.
- Be cautious of condiments including ketchup, processed fruit based salsas, salad dressing, barbecue sauces, syrups, jellies, and fruit spreads.

Some quantity of sugar is in almost every manufactured product we consume. If man has manipulated the food in any way there is a very good chance it has sugar added. The reasons for this are not just to improve taste. Sugar serves as a preservative in food, is used to improve food texture, and it is a naturally occurring component in many foods.

The expense that the body pays for excess sugar intake can be dramatic. Refined sugars impact several systems of the body. In fact, as soon as it enters the mouth, sugar is already applying its detrimental effects. Sugar intake has a direct influence on the progression of tooth decay. Humans have a sticky, colorless film of bacteria that constantly forms on the surface of teeth called plaque. When sugar is consumed it feeds the bacteria causing the release of acids. The acidity of the mouth increases nearly 100-fold. Less than 20 minutes after the bacteria makes contact with the sugar, the acids start attacking and dissolving tooth enamel causing mineral loss from the surfaces of teeth. This damage increases the susceptibility for cavities. The longer this sugar is in contact with teeth the greater chance of tooth decay. Sticky foods like chewing gum, raisins, dried fruits and some candies will cause the food to adhere to our teeth making the length of contact time of sugar with our teeth longer, and thereby allowing acid production to be prolonged. This is the reason doctors recommend brushing after every meal. Even if the food contains only natural sugars the effect is the same as refined sugar and brushing is still necessary.

Sugar's ill effects do not stop in the mouth. According to findings from the National Academy of Sciences there are several areas of concern with high sugar intake and its effect on health. The panel's review of literature indicated that a direct link exists between sugar and several health problems.

The panel cited several studies showing a higher incidence of colorectal cancer among heavy sugar consumers. The theory behind the promotion of the disease is that diets found to be high in sugar were often much lower in fiber (fiber has a protective effect on the digestive tract). The risk for colorectal cancer was lower for those who consumed their

sugar from fiber-loaded sources such as fruit. One study suggested that sugar-rich, fiber-poor foods are also associated with an increased risk of lung cancer.

The report indicated that evidence exists which states that increased sugar intake is “positively associated with plasma triglycerol and low-density lipoprotein (LDL-C) cholesterol concentration”. Diets high in sugar can contribute to heart disease by increasing the susceptibility to hyperlipidemia and coronary plaque. Sugars, particularly sucrose and fructose, raise triacylglycerol more than starches. This suggests that America’s tendency to consume large amounts of refined sugar is a contributing factor to heart disease regardless of high fat intake.

The panel’s most interesting finding may be that sugar does not directly cause Type II Diabetes as many people may believe. The key word in that statement is “directly” because eating too many calories can lead to obesity, which heightens the chance of developing Type II Diabetes. There is an indirect link between the over consumption of refined carbohydrates due to the effects the foods have on blood glucose dynamics (glycemic index) and with the total quantity of carbohydrates (glycemic load) consumed each day. It is suggested that an over abundance of carbohydrates (reduced sensitivity to insulin) in the presence of excess body fatness (insulin is lipogenic) leads to development of Type II Diabetes.

Another concern of the panel was that the increased consumption of added sugars can lead to a decreased intake of vital nutrients. One federal study shows that teenage girls replace milk with sweetened soft drinks as they move into adolescence, setting themselves up for later bone loss. Refined products often replace complex carbohydrates, particularly vegetables and whole grains, which reduces the nutrient dense foods and voids the diet of adequate fiber.

Another popular assumption that the findings suggest is false is the effect sugar has on hyperactivity. According to the report sugar related hyperactivity has no scientific basis. Two dozen studies have concluded that sugar consumption does not lead to behavioral problems such as attention-deficit (hyperactivity) disorder. In fact, the literature indicates that sugar can act as a sedative.

The panel reviewed dozens of studies and found mixed results when it comes to proving a direct link between added sugars and obesity. Although two studies reviewed by the

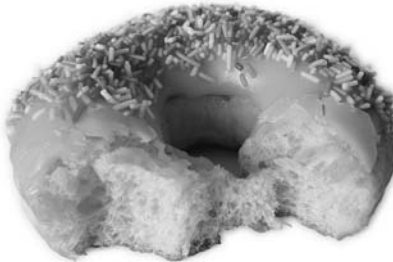
panel suggest that soda promotes obesity, mainly because liquids do not fill you up as much as solid food and yet still contribute a large quantity of calories. It has been pointed out that sugar and obesity related research is very difficult because dietary practices are self reported. The limitations of under reporting or not including “guilty” foods are common in these types of research.

Anecdotally speaking, the role of a high caloric intake from sugar based foods is likely one of the major contributors to America’s weight problems. Due to the reports indicating that, on average, most people ingest close to 15x the amount of sugar consumed less than 100 years ago, and that consumption equates to about 500 calories worth of sugar per day, it is hard not to blame sugar for weight gain. Additionally, due to the fact that the body experiences detrimental effects from prolonged high blood glucose concentrations, insulin response is directly related to the circulating glucose concentration. Insulin is anabolic, causing the cellular uptake of blood sugar, amino acids, and triglycerides. It can be surmised that high sugar diets lead to increased fat storage potential. Basically, diets that are high in refined sugar increase the likelihood of regular surges of

insulin and more lipogenic (fat storage) rather than lipolytic (fat usage) activity.

It should be fairly clear that the consumption of sugar above the 10% recommended from the daily diet is not good for overall health. Collectively, the World Health Organization, American Dietetic Association, and the United States Department of Agriculture agree that sugar needs to be reduced in the diet. However, recent reports have provoked loud criticism from the sugar lobby in the U.S. and Canada, both contending that there is no scientific proof that sugar directly causes diabetes or obesity. Sugar is big business and it is very unlikely that the food manufacturers will stop adding sugar to food. That means it is up to the consumer and health educators to work at reducing sugar consumption in the diet. Identifying hidden sugars and limiting sugary snack intake, including sugar-loaded beverages is a good first step. Children need to learn early on that too much sugar is bad for them and adults need to avoid using it as a reward. If the country begins replacing refined and sugar added foods with vegetables and fruits, many of the aforementioned problems will be positively affected and people will be healthier. ●

**E**ven the fat-free foods can be rich in sugar. In many cases manufacturers replace fat calories with sugar so the food remains desirable to the palate.



# CEU Quiz

## Sugar Exposed!

- An average American in today's society consumes approximately \_\_\_\_ lbs. of sugar per year.  
A. 25      B. 60      C. 100      D. 150
- The World Health Organization (WHO) recommends that no more than what percentage of an individual's diet should come from simple sugars?  
A. 10%      B. 20%      C. 30%      D. 40%
- Based upon the USDA recommendation, an individual consuming a 2,000 calorie diet should be consuming no more than \_\_\_\_ grams of sugar per day.  
A. 10      B. 25      C. 30      D. 40
- When analyzing the food label for nutritional information, it is important to not only look for sugar, but also sugar equivalents such as:  
A. Sucrose  
B. High-Fructose corn syrup  
C. Fructose  
D. All of the above
- Which of the following is the primary reason sugar is added to foods during processing?  
A. Increase nutritional content  
B. Improve blood glucose response  
C. Serve as a preservative and to improve texture  
D. None of the above
- Tooth enamel is attacked by acid and mineral loss on the surface of teeth occurs within \_\_\_\_ minutes of sugar intake.  
A. 10      B. 20      C. 30      D. 60
- Which of the following explains the theory why researchers believe high levels of sugar intake may lead to an increased risk of colorectal cancer?  
A. The intake of sugar has little effect on blood glucose response  
B. The digestive tract easily processes ingested sugars  
C. Blood lipid profiles are relatively unchanged with high sugar diets  
D. High sugar diets often are consumed at the expense of adequate levels of fiber
- Diets high in sugar can contribute to the development of heart disease by increasing susceptibility to \_\_\_\_\_ and \_\_\_\_\_.  
A. hyperlipidemia; coronary plaque  
B. hypertension; dehydration  
C. anorexia; hyperlipidemia  
D. diabetes; osteoporosis
- Excess intake of dietary sugar can lead to the development of \_\_\_\_\_.  
A. Type II Diabetes  
B. Colorectal Cancer  
C. Obesity  
D. All of the above are correct
- Which of the following presents a problem with sugar and obesity related research?  
A. information is self-reported  
B. it is difficult to determine the exact sugar content of foods  
C. many individuals do not understand the importance of the research  
D. not enough test subjects consume high sugar diets

# Quiz Answer Form

FIRST NAME \_\_\_\_\_ LAST NAME \_\_\_\_\_ M.I. \_\_\_\_\_

TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_ APT. \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

COUNTRY \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

CERTIFICATION NO. \_\_\_\_\_ CERTIFICATION EXP. \_\_\_\_/\_\_\_\_/\_\_\_\_

MEMBERSHIP NO. \_\_\_\_\_ MEMBERSHIP EXP. \_\_\_\_/\_\_\_\_/\_\_\_\_

Quiz Name	Member Price	Total
	\$15	



Discover



Visa



Mastercard



Amex



Check/Money Order

Account No. \_\_\_\_\_

Exp. Date \_\_\_\_\_

Security Code \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## Quiz Answers

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |

Fill in each blank with the correct choice on the answer sheet. To receive 0.5 CEUs, you must answer 8 of the 10 questions correctly.

Please mail this Quiz answer form along with the proper enclosed payment to:

NCSF  
5915 Ponce de Leon Blvd., Suite 60  
Coral Gables, FL 33146

Questions? 800-772-NCSF