

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
P.O. Box 163908
Miami, FL 33116

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.

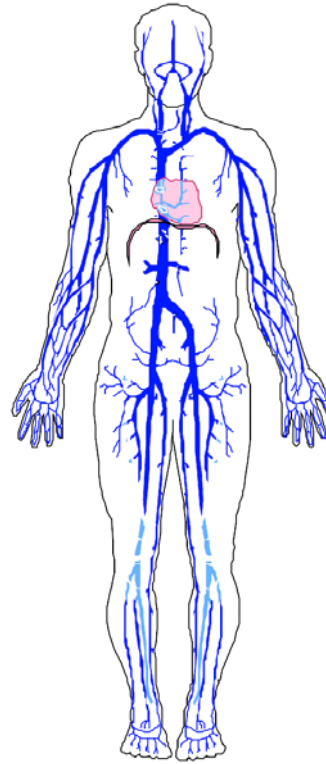
Maintaining Proper Hydration

Unlike anything else we put into our bodies, water must be consumed in ample amounts on a daily basis. It is the ultimate essential nutrient. The body can sustain life without food for an extended period of time, but without water physiological processes are comprised and death occurs in a matter of days.

Water molecules are found in and between every cell of our body. More than half of our total body weight is water (approximately 60-75%). It helps to form the structures of macromolecules such as proteins and glycogen; acts as the solvent for vitamins, minerals, glucose, amino acids and many other nutrients; and serves as the main transport system of the body, moving nutrients, toxins and waste products to their respective destinations. Water also plays a key role in the body's thermoregulatory mechanism, and with nutrient digestion and absorption. All of our body's biochemical reactions occur in water, and water is an active participant in each of the reactions. It is safe to say that water is the most underrated, often overlooked, yet essential compound that every human being needs for survival.

The primary controller of our hydration status is our thirst. Unfortunately, the threshold for the initiation of thirst occurs at a point where a person is already dehydrated to a level of 0.8-2.0% loss of body weight. If you wait until you are already thirsty, you are at a point of mild dehydration. Many people often go through life in a constant state of water malnutrition. This means that their physiological function is compromised in some way because they do not consume enough H₂O.

Dehydration can be defined as a loss of 1.0 % or greater of body weight as a result of fluid loss. One of the more common misconceptions about dehydration is that one must lose water through sweat to be in a



state of dehydration. The truth is we are literally losing water every time we take a breath. All of our metabolic functions require water and we don't have the ability to recycle it. It is reported that on average we replace all of the water in our bodies about once every 10-12 days. Athletes in heavy training must replace all of their water about once every six days. The water is used in one of its various functions and then removed from our bodies via evaporation, excretion, and respiration. In order to avoid dehydration, we must constantly replenish our supply of water.

To be well hydrated, the average sedentary adult male must consume at least 2.5 liters of fluid per day. The average sedentary adult female must consume at least 2.2 liters of fluid per day. The fluid must be in the form of non-caffeinated, non-alcoholic beverages, soups, and foods. Water in its pure form, is the most readily used by the body. Drinking tea, coffee, and other soft drinks can over-

stimulate your central nervous system, and at the same time dehydrate your body because of the strong diuretic action of caffeine on the kidneys, which causes increased urine production. A general rule of thumb is for every cup of caffeinated beverage consumed, the body will lose up to a cup and a half of water depending on the caffeine concentration. Individuals who constantly drink coffee or sodas can in fact dehydrate themselves without any activity what-so-ever.

Early Signs of Dehydration

Fatigue

Headache

Heat Intolerance

Dry Mouth or Cough

Flushed Skin

Appetite Loss

Sensation of Being Light-Headed

Dark Urine with Strong Odor

Most recreational athletes don't drink enough water to replace the fluids they lose during exercise. To help combat this problem, it is recommended that you drink four to eight ounces of water every hour throughout the day to ensure that you are not starting your activity in a mild state of dehydration. During exercise drink four to eight ounces of water at 15-20 minute intervals. After exercise drink at least 16 oz. of water. Try to drink cold water, the colder the better. It helps the body regulate its temperature during exercise by cooling you from the inside and has also been shown to absorb faster into the body.

Athletes in heavy training can use over 2 gallons of water per day. Training in a state of dehydration can have dramatic effects on performance. Dehydrate a muscle by only 3% and you cause about 10% loss of contractile strength and an 8% loss of speed. A study conducted at Ball State University showed a 7% drop in speed over 10 kilometers by runners who were dehydrated by just 2%-3%. That's only 3-5 lbs. for a 165 lb. runner. Cramping may also occur

with cellular fluid loss. When water becomes depleted from active cells the normal concentration gradient in the cell is negatively affected. The cells lose fluid and electrolytes which cause them to malfunction or cramp.

Chronic dehydration has been linked to the development of some major health problems. It is generally thought that the prevalence of kidney stones is higher in populations with low urinary volume. Decreased fluid intake leads to low urine volume and increased concentrations of all stone-forming salts. It is recommended that persons at risk for urinary stone formation and patients with stones should consume at least 250 ml of fluid with each meal, between meals, before bedtime, and when they get up. This pattern will ensure that fluid intake is spread throughout the day and that the urine doesn't become concentrated, which increases your chances for kidney stone development.



Low fluid consumption may increase the incidence of certain cancers. There seems to be a link between patients with urinary tract cancer (bladder, kidney, prostate, and testicle) and the relatively smaller amounts of fluids they normally consumed. No association with specific fluid volumes has been found, but a study done in Seattle, Washington found women who drank more than 5 glasses of water per day had a 45% decreased risk of colon cancer versus those who drank 2 or fewer glasses. Among the men there was a 32% decrease in risk with increased water consumption. This is probably attributed to the fact that fecal mobility reduces the duration of time carcinogenic toxins sit in the large intestine.

Water also plays a primary role in the metabolism of fats. One of the many functions of the liver is to mobilize stored fat for energy use. Water is a key ingredient in metabolic processes. In times of water shortage, the kidneys cannot perform to the levels required for waste removal. This in turn results in the liver being called upon to aid the kidneys in its efforts resulting in less efficient metabolism. Additionally, water serves to further aid in caloric deficit by reducing the calories associated with other fluid choices and adding to gastric volume. People who consume regular amounts of water experience feelings of satiety (fullness) by maintaining a higher gastric volume, thus causing them to eat less. Water can take the edge off hunger, reducing the caloric peaks and valleys that many people experience when eating large meals.

The importance of water can not be emphasized enough. Dehydration plays a primary role in diminished physical performance in both the athlete and recreational participant. People need to be aware of their hydration status and monitor it accordingly. Be sure to prepare with the necessary fluids before, during and after bouts of physical activity. Regardless of training indoors versus outside, individuals need to be conscious of the environment in

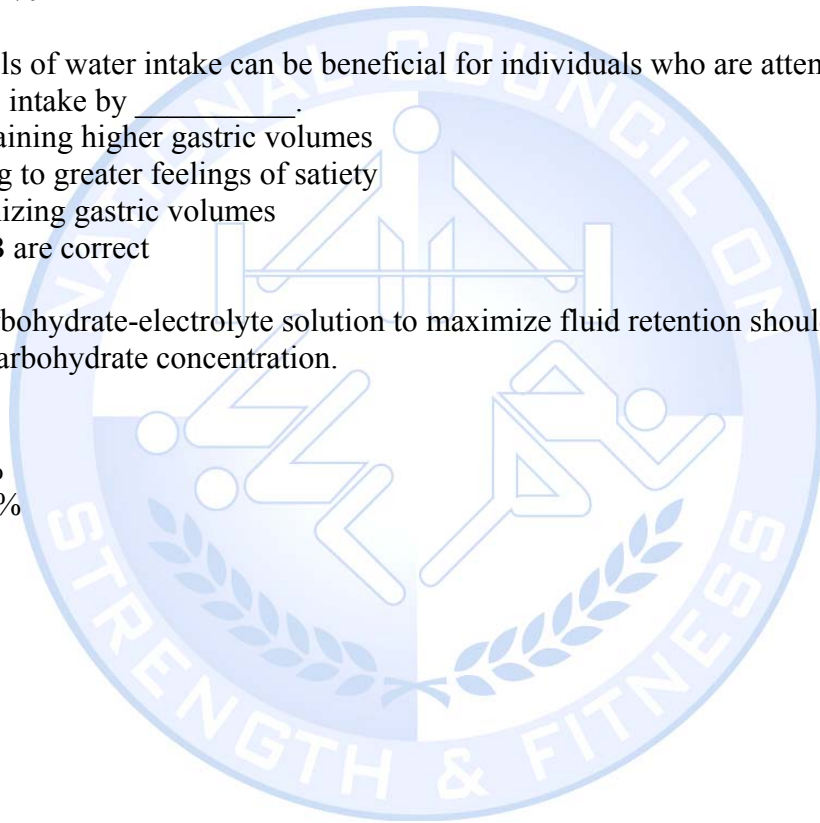
which they train. Remember to follow safe training and lifestyle habits and drink to your health.

Determining the appropriate amount of fluid and electrolyte consumption before, during, and after exercise is very important. Likewise, the tracking of fluid loss by pre- and post-exercise weight changes can help reduce the occurrence of accumulative dehydration. If the exercise is performed in extreme environmental conditions or performed for extended periods of time the fluid replenishment program should look into more effective fluid replacement than just water alone. Sport drinks containing a carbohydrate-electrolyte solution between 4-8% carbohydrate concentration are best suited to provide appropriate fluid retention by the kidneys. Drinks containing glucose polymers are more palatable and experience better gastric emptying and digestive tract absorption than those made with fructose and sucrose. Additionally, greater gastric volume increases the emptying rate of the stomach, which leads to improved hydration balance. In all cases water intake should be appropriately managed and tracked for physically active individuals.

CEU QUIZ

1. Approximately _____ of our total body weight is comprised of water.
 - A. 20-35%
 - B. 30-45%
 - C. 60-75%
 - D. 70-90%
2. As a controller of hydration status, the problem with thirst as an indicator of dehydration is that an individual has already lost _____ of their body weight in water when they become thirsty.
 - A. 0.2-0.8%
 - B. 0.8-2.0%
 - C. 2.0-3.0%
 - D. 3.5-5.0%
3. _____ can be defined as a loss of 1.0% or greater of _____ as a result of fluid loss.
 - A. Dehydration; muscle mass
 - B. Thirst; body weight
 - C. Thirst; fat free mass
 - D. Dehydration; body weight
4. To be considered well hydrated, an average sedentary male must consume at least _____ liters of fluid per day.
 - A. 1.0
 - B. 1.5
 - C. 2.0
 - D. 2.5
5. Which of the following does not contribute positively to overall hydration status?
 - A. water
 - B. soups
 - C. coffee
 - D. food
6. Which of the following are early signs of dehydration?
 - A. fatigue
 - B. loss of appetite
 - C. headache
 - D. all of the above are correct

7. It is recommended that _____ consume between four to eight ounces of water every hour throughout the day to maintain proper levels of hydration.
- A. recreational athletes
 - B. sedentary adults
 - C. endurance athletes
 - D. elite athletes
8. Dehydration of a muscle by ____ can result in a ____ loss of contractile strength.
- A. 1%; 5%
 - B. 3%; 10%
 - C. 5%; 10%
 - D. 8%; 12%
9. Adequate levels of water intake can be beneficial for individuals who are attempting to minimize caloric intake by _____.
- A. maintaining higher gastric volumes
 - B. leading to greater feelings of satiety
 - C. minimizing gastric volumes
 - D. A & B are correct
10. The ideal carbohydrate-electrolyte solution to maximize fluid retention should contain a ____ carbohydrate concentration.
- A. 2-6%
 - B. 4-8%
 - C. 8-10%
 - D. 12-16%



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 _____

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
 P.O. Box 163908
 Miami, FL 33116

Questions? 800-772-NCSF