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.

New Supplement Database

All the media coverage and press on supplements and ergogenic aids used by athletes, recent lawsuits and injury associated with weight loss supplements, and increasing knowledge of the lack of regulations of the supplement industry in general, has led government agencies to commit resources to help consumers make more educated decisions regarding the supplements they buy. A cohort of governmental agencies including the Nutrient Data Laboratory (NDL), Beltsville Human Nutrition Research Center (BHNRC), Agricultural Research Service (ARS), and the USDA along with the Office of Dietary Supplements, National Institutes of Health (ODS/NIH) and other federal agencies have been working to develop a Dietary Supplement Ingredient Database (DSID). The goal of the project is to evaluate levels of ingredients in dietary supplement products for consumer protection and product safety.

Primarily funded by the Office of Dietary Supplements, DSID project has taken its firsts steps in providing data regarding popular supplements by evaluating supplemental vitamins and minerals in a large sample of over-the-counter multivitamin formulas currently available to consumers. Part of the initiative is based on developing databases that support the assessment of intake of nutrients from foods consumed by Americans so USDA researchers can better ascertain national nutritional levels. The overall undertaking is quite grand as the consortium of federal agencies includes the ODS and partners at USDA/ARS, the National Center for Health Statistics of the Centers for Disease Control and Prevention (NCHS/CDC), the Food and Drug Administration (FDA), the National Cancer Institute (NCI), NIH and the National Institute of Standards and Technology (NIST) of the Department of Commerce. The reason for the grand scale is due to the vast number of factors associated with essential and nonessential dietary nutrients including agricultural impact, costs, disease risks, risks of toxicity and deficiency, synergistic outcomes of ingested chemicals, and measurement quantification to name a few.

The federal consortium's first charge in 2004 was to "identify DSID priorities for products and ingredients of public health and research interest." Following the review of the National Health and Nutrition Examination Survey (NHANES) which included a dietary supplement data file, the initial prioritization of product types was determined. Multi-Vitamin and Mineral (MVM) supplements top the list as they represent the greatest consumed supplemental product in the United States. It is estimated that MVM's are consumed by more than half of Americans, so it is no surprise adult MVM products were slated as the top priority. Additionally, antacids, calcium supplements, and vitamins E, C, and B-vitamin products ranked amongst the highest supplemental products in the NHANES data file for supplements.

Investigators ranked and weighted the ingredients of the MVM by several factors and assigned weights based on the information. According to NHANES respondent data, the seven highest priority dietary supplement ingredients based on consumer use included: Folic acid, vitamin C, retinol, beta-carotene, vitamin E (alpha-tocopherol), calcium, and iron. Anecdotally, these are the nutrients most commonly named in media articles for health, antioxidant/anti-aging and deficiency disorders in females. Based on the findings from the data analysis, future research will likely include estimates for vitamin D, beta-carotene, retinol, and chromium in adult MVMs. Likewise, the supplement priority analysis cites future studies to be conducted for the nutrient content in

children's MVMs and of omega-3 fatty acids in fish oil products.

Summary of Results

Of the 541 adult MVM products identified in the review, a sample total of 219 different MVM products were purchased from regional stores. The products were then analyzed for the eleven vitamins and eleven minerals and evaluated for laboratory precision and accuracy on an on-going basis. Laboratory results were statistically evaluated at multiple levels and identified "three nutrients (thiamin, selenium and vitamin B-6) had mean percentile difference from labeled values that were >20% above label values and significantly different from the label for all the levels analyzed." For 10 nutrients analyzed the deviations between those listed and included where 10% or less from the label ingredients (magnesium, iron, niacin, zinc, phosphorus, potassium, calcium, manganese, vitamin C, and riboflavin), indicating these 10 nutrients in MVM products were consistently close to labeled levels of the nutrient. Results were more variable for the five other vitamins and minerals studied (vitamin E, copper, vitamin B-12, folic acid and iodine).

Vitamin	Most Common Labeled Level	Predicted Percent Difference from Label (at most common level)
Folic Acid	400 mcg	14 %
Niacin	20 mg	1.8 %
Riboflavin	1.7 mg	12 %
Thiamin	1.5 mg	18 %
Vitamin B-12	6 mcg	9.2 %
Vitamin B-6	2 mg	26 %
Vitamin C	60 mg	7.7 %
Vitamin E	30 IU	5.9 %
Calcium	162 mg	14 %
Copper	2 mg	7.6 %
Iodine	150 mcg	26 %
Iron	18 mg	0.7 %
Magnesium	100 mg	2.2 %
Manganese	2 mg	6.7 %
Phosphorus	109 mg	8.0 %
Potassium	80 mg	6.9 %
Selenium	20 mcg	26 %
Zinc	15 mg	4.1 %

The initial investigation is a good starting point for supplemental intakes of Americans particularly since as many as 75% of American adults have used multivitamin supplements at one time or another. Although other studies have evaluated the purity and bioavailability of vitamins, identifying what is on the label compared to what is in the product certainly makes sense based on previous investigation of the supplement industry. But since many people supplement multivitamins due to a low intake of fruits vegetables and whole grains, greater emphasis on the bioavailability of nutrients in supplements becomes even more relevant. The assessment of nutrient adequacy of dietary intakes requires not only knowledge of the nutrient content of the supplement or food ingested, but also the extent to which the nutrient consumed is available for absorption and utilization by body tissues. Any nutrient in the body that is not absorbed or is not "functionally" available is of no nutritional value. Due to the fact that various nutrients and chemicals interfere with the bioavailability of the vitamins and minerals, requirements for them cannot be considered independently. In the case of vitamin C and Iron for instance, bioavailability is tripled in combination, whereas iron and zinc combinations play interfering roles. Ideally, diets should be evaluated for balance and micronutrients should be evaluated in relationship to other nutrients and compounds consumed by an individual. Consumers should be aware of tolerable upper limits and toxicity related signs and symptoms when using supplemental multivitamins particularly in conjunction with other supplements and/or fortified food.

All data is from the Office of Dietary Supplements.

One important fact to take from the progressive movement toward improved regulation is that the cohort of government agencies have spent five years on identifying top priorities in the dietary supplement use by Americans and have collected enough data to compare ingredient values to the labeled values for multivitamins only. This suggests that all other products existing on the market that are not food and fall under the supplement title are not appropriately regulated by any third party. According to the Dietary Supplement Health and Education Act (DSHEA) of 1994, supplements are regulated by the manufacturers that produce them. Numerous university clinical trials have demonstrated that what a supplement label lists as ingredients may not be what is consumed and the use of "proprietary blends" further complicates a consumer's knowledge of what they are taking. Most Americans believe supplements are regulated like foods and that the FDA ensures safety. This could not be further from the truth. For this reason supplements are considered a buyer's beware market.

According to the DSHEA, as long as a supplement does not contain a "new ingredient" it does not need any regulatory assessment or review before being marketed and sold to consumers. A "new ingredient" is defined as a vitamin, mineral, herb or other botanical, amino acid, a dietary substance for use by man to supplement the diet by increasing the total dietary intake and/or is a concentrate metabolite, constituent or extract that was not sold in the U.S. in a dietary supplement before October 1994. So according to the FDA, a manufacturer or firm is responsible for determining that the supplements they produce are safe and that the claims they make on the label are true. Again, it is the manufacturer's job, no regulatory review

is necessary at all so manufacturers do not need approval by the FDA to market and sell supplements unless it contains a "new dietary ingredient". Nor do manufacturers or producers need to register themselves or their products with the FDA before producing and selling them. In addition, and unlike foods and drugs there does not exist any minimum standard of practice for manufacturing supplements. According to the DSHEA, "at present, the manufacturer is responsible for establishing its own manufacturing practice guidelines to ensure that the dietary supplements it produces are safe and contain the ingredients listed on the label."

If a new ingredient potentially exists in the supplement it is up to the manufacturer to determine it is a new ingredient and report it. But no authoritative list of dietary ingredients that were marketed before Oct. 15, 1994 exists. The FDA does require the word supplement be placed on the container and if product volume permits a "supplement facts" panel should be on the label identifying each ingredient. The reason volumes matter is that small production volumes and some small businesses are exempt from label requirements.

Probably the most disturbing fact is that by law the manufacturer is responsible for ensuring dietary supplement safety before being marketed and there are no provisions in the law for the FDA to "approve" dietary supplements for safety or effectiveness before they are sold. In addition dietary supplement companies are not required by law to record, investigate or forward to the FDA any reports they receive of injuries or illness that may be related to the use of their products. In fact, once on the market the FDA has to prove it is in fact unsafe before it can legally be removed from the marketplace. This is particularly concerning because the manufacturer never has to disclose any information to the FDA or consumers the information they have about the safety, purported benefit, or effectiveness. Each firm has the right to set its own policies on information disclosure. If a function claim is made on a label the manufacturer is required to state that the function of the supplement has not been reviewed or evaluated by the FDA.

Most people are extremely surprised to see that the companies that profit from the supplements are also the ones in charge of regulating themselves. Although manufacturers may manufacture, practice and disclose information in the best interest of the consumer other companies may not have the same ethics. Consumers should evaluate companies in the same way they evaluate the purported effects of supplements. Due to the limited research from universities and small quantity of data submitted by manufacturers for peer review, it is up to the consumer to make decisions about what they should or should not consume. A smart practice is to always consult a physician or registered dietitian before taking any supplements.

CEU Quiz
New Supplement Database

1. Government agencies have committed resources to help consumers make more educated decisions about supplements due to:

    a. Injury associated with weight loss supplements
    b. Lack of regulations
    c. Press and media coverage about supplements and ergogenic aids used by athletes
    d. All of the above

2. The goal of the Dietary Supplement Ingredient Database (DSID) is to:

    a. Regulate pricing of all supplements
    b. Impose fines on manufacturers who are not making quality supplements
    c. Evaluate levels of the ingredients in dietary supplements for consumer protection and product safety
    d. Standardize the pricing of supplements, which currently varies by supplier.

3. Multi-Vitamin and Mineral (MVM) supplements were the first group of supplements researched due to the fact that:

    a. They represent the greatest consumed supplemental product in the United States
    b. There are many brands to chose from
    c. Most Americans do not believe in their efficacy
    d. Not many Americans use MVMs

4. Which of the following is NOT listed as one of the most widely consumed supplemental products by Americans as listed by the NHANES data files:

    a. Vitamin E
    b. Vitamin C
    c. Creatine
    d. Calcium

5. Which of the following nutrients found in the supplements was identified as having a "mean percentile difference from labeled values that were >20% above label values and significantly different from the label for all the levels analyzed."

    a. Iron
    b. Vitamin B-6
    c. Riboflavin
    d. Vitamin C

6. The MVMs were a good place to start for the investigation and research since approximately ____ of American adults have used multi-vitamin supplements at some point in their diet.

    a. 30%
    b. 50%
    c. 75%
    d. 90%

7. When examining the bioavailability and functionality of vitamins it has been found that when Vitamin C is combined with _____, the bioavailability nearly triples.

    a. Vitamin E
    b. Calcium
    c. Chromium
    d. Iron

8. According to the Dietary Supplement Health and Education Act of 1994, supplements are regulated by _____.

    a. The FDA
    b. The company that sells the products
    c. The manufacturers that produce the supplements
    d. The Commission on Dietetic Registry (CDR)

9. When does a manufacturer have to get FDA approval with regard to selling a supplement?

    a. Anytime a supplement is sold
    b. Never
    c. Only when it contains a "new dietary ingredient"
    d. Only if the supplement will be consumed by children

10. Which of the following is true about the supplement industry and manufacturers?

    a. In order for a supplement to removed from market once it's being sold, the FDA must prove it is unsafe and harmful.
    b. Supplement manufacturers are NOT required to disclose information to the FDA or consumers about safety, purported benefits, or effectiveness.
    c. No authoritative list of dietary ingredients that were marketed before October 15, 1994 exists to utilize and compare what denotes a "new ingredient"
    d. All of the above are TRUE

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