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Dietary Supplements and Operation Supplement Safety

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Dietary Supplements and Operation Supplement Safety

Event Materials

Visit the **event page** to download a copy of the presentation slides and any additional resources.

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Continuing Education

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3

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This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, and the Office of Military Family Readiness Policy, U.S. Department of Defense under Award Numbers 2019-48770-30366 and 2023-48770-41333.

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Today's Presenter

Andrea T. Lindsey, MS

Director of Operation Supplement Safety &
Senior Nutrition Scientist

In support of The Consortium for Health and Military Performance
Department of Military and Emergency Medicine, F. Edward Hébert School of Medicine
Uniformed Services University of the Health Sciences
Contractor, Henry M. Jackson Foundation for the Advancement of Military Medicine

CHAMP
Uniformed Services University

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The authors have no financial interests or relationships to disclose.

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Objectives

At the end of this presentation and activity, participants will be able to:

- Describe how dietary supplements (DS) are regulated.
- Discuss key topics related to dietary supplements and Performance Enhancing Substances (PES).
- Explain how Operation Supplement Safety (OPSS) is educating Service Members, healthcare providers, and allied health professionals.
  - Review DoDI 6130.06: *Use of Dietary Supplements in the DoD* and substances on the *DoD Prohibited Dietary Supplement Ingredients List*

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OPSS | THE MISSION: INFORMED USE OF HEALTH, WELLNESS, AND PERFORMANCE PRODUCTS

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Selected Regulations for Dietary Supplements

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What is a Dietary Supplement?

- Defined by the Dietary Supplement Health and Education Act of 1994 (DSHEA):
- Intended to supplement the diet
- Must be taken by mouth
- In the form of a tablet, capsule, powder, softgel, gummy, gelcap, liquid, or bar
- Contains one or more of the following dietary ingredients:
  - Vitamin
  - Mineral
  - Herb or other botanical
  - Amino acid
  - A dietary substance to supplement and increase total dietary intake
  - A concentrate, metabolite, constituent, extract, or combination of the above
- Must be labeled as a dietary supplement and have a Supplement Facts label

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Dietary Supplement Regulations

Common Misconceptions/Myths:

- "Supplements are unregulated"
- "There's no FDA oversight on supplements"

Facts: Dietary supplements ***are*** regulated by Food and Drug Administration (FDA), but…

- FDA does NOT approve supplements before they are marketed
- Manufacturer is responsible for ensuring products are properly labeled and safe
- If a product has already been introduced to the market the FDA can take action if the product is NOT safe or is misbranded

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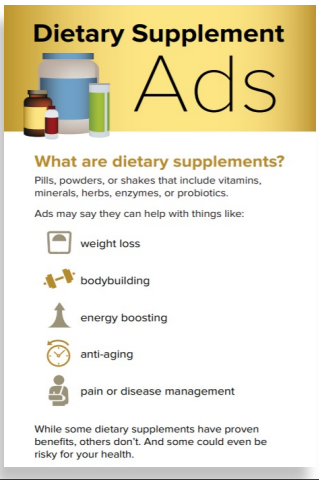
Federal Trade Commission (FTC) Responsibilities

Broad mandate: stop deceptive and unfair practices in commerce (including false and unsubstantiated marketing claims)

-Ads must be truthful and not misleading

-Objective claims must be substantiated before they are made



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Labeling

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Is it a Dietary Supplement?

A **Food**

A

Nutrition Facts

8 servings per container

Serving size **2/3 cup (55g)**

Amount per serving

Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 12g	
Includes 10g Added Sugars	**20%**
Protein 3g	

Vit. D 2mcg 10% • Calcium 260mg 20%

Iron 8mg 45% • Potas. 240mg 6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

An **OTC Medication**

B

Drug Facts

Active ingredient (in each tablet)	*Purpose*
Chlorpheniramine maleate 2 mg	Antihistamine

Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat

Warnings

Ask a doctor before use if you have
■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis
■ trouble urinating due to an enlarged prostate gland

Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives

When using this product
■ drowsiness may occur ■ avoid alcoholic drinks
■ alcohol, sedatives, and tranquilizers may increase drowsiness
■ be careful when driving a motor vehicle or operating machinery
■ excitability may occur, especially in children

If pregnant or breast-feeding, ask a health professional before use.
Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.

Directions

adults and children 12 years and over	take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
children 6 years to under 12 years	take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
children under 6 years	ask a doctor

Drug Facts (continued)

Other information ■ store at 20-25°C (68-77°F) ■ protect from excessive moisture

Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

A **Dietary Supplement**

C

Supplement Facts

Serving Size 1 tsp (3g) (makes 8 fl oz prepared)
Servings Per Container 24

	Amount Per Teaspoon	% Daily Value
Calories	10	
Total Carbohydrate	2 g	<1%*
Total Sugars	2 g	†
Includes 2g Added Sugars		4%*
Proprietary Blend	0.7 g	
German Chamomile (flower)		†
Hyssop (leaf)		†

* Percent Daily Values are based on a 2,000 calorie diet.
† Daily Value not established.

Other ingredients: Fructose, lactose, starch, and stearic acid.

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What You May NOT Know…

Food

Generally recognized as safe (GRAS)

Nutrition Facts

8 servings per container
Serving size 2/3 cup (55g)

Amount per serving
Calories 230

	% Daily Value*
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
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Dietary Fiber 4g	14%
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Includes 10g Added Sugars	20%
Protein 3g	

Vit. D 2mcg 10% • Calcium 260mg 20%
Iron 8mg 45% • Potas. 240mg 6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

OTC Medication

Proven evidence of efficacy and known safety

Drug Facts

Active ingredient (in each tablet) — *Purpose*
Chlorpheniramine maleate 2 mg — Antihistamine

Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat

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If pregnant or breast-feeding, ask a health professional before use.
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Drug Facts (continued)
Other information ■ store at 20-25°C (68-77°F) ■ protect from excessive moisture
Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

Dietary Supplement

No requirement for evidence of safety or efficacy

Supplement Facts

Serving Size 1 tsp (3g) (makes 8 fl oz prepared)
Servings Per Container 24

	Amount Per Teaspoon	% Daily Value
Calories	10	
Total Carbohydrate	2 g	<1%*
Total Sugars	2 g	†
Includes 2g Added Sugars		4%*
Proprietary Blend	0.7 g	
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Hyssop (leaf)		†

* Percent Daily Values are based on a 2,000 calorie diet.
† Daily Value not established.

Other ingredients: Fructose, lactose, starch, and stearic acid.

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What is NOT a Dietary Supplement?

- Patches
- Injectables
- Lotions
- Creams
- Sprays?

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FDA Can…

Take action to remove products from market, if product is:

- Adulterated (e.g., the product is unsafe)
- Misbranded (e.g., the labeling is false or misleading)
- Associated with adverse events

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Key Topics Related to Health & Performance Products

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Issues of Concern

- Limited federal resources to monitor health and performance products
- Misinformation
- High-risk products
- Contaminants and adulterants: e.g. steroids, stimulants, prescription drugs, unapproved drugs, unapproved ingredients, heavy metals
- Potential for adverse events/reactions (AEs)
- Direct marketing to/discounts for Service Members

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What Products are Considered "High-Risk"?

- Bodybuilding, weight loss, and sexual enhancement
- Any product with an ingredient on the *DoD Prohibited Dietary Supplement Ingredients List*
- Combinations of multiple ingredients/products

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Contaminants and Adulterants

- Anabolic steroids
- SARMs (selective androgen receptor modulators)
- Aromatase inhibitors
- Pro-hormones
- Synthetic stimulants
  - Betaphrine, BMPEA, DMAA, DMBA, DMHA, methylsynephrine, … (Ingredients typically ending in “ine”)
- Prescription drugs
- Heavy metals, etc.

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Adverse Events

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What is an Adverse Event?

ANY unfavorable or unusual reactions, effects, or illnesses that can occur with the use of some health and performance products

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Adverse Events Associated with Dietary Supplements

- Rapid or irregular heart beat
- Chest pain
- High blood pressure
- Stroke
- Heart attack
- Tingling/prickling sensation
- Rhabdomyolysis
- Heat injury
- Seizures
- Liver injury/failure
- Kidney injury/failure
- Fainting/passing out

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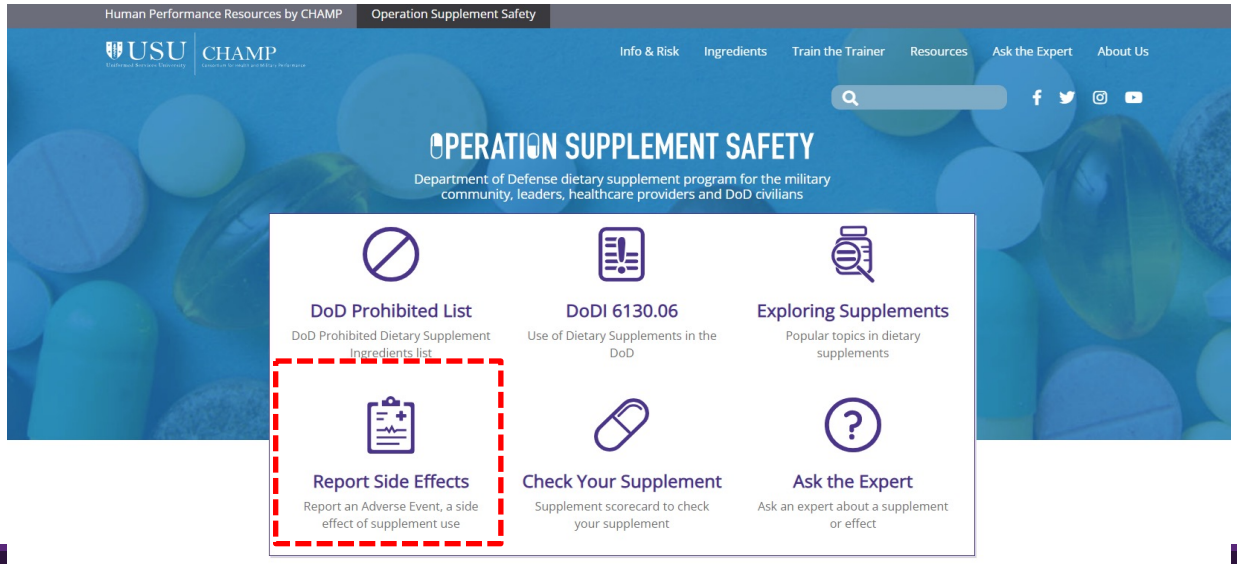
Reporting AEs



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The Safety Reporting Portal

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Other Products of Concern

Energy Drinks

What's in them?

- Caffeine
- Guarana
- Sweeteners (sugar, low and no calorie sweeteners)
- B-vitamins (niacin, B6, B12, etc.)
- Taurine
- Inositol
- Glucuronolactone
- L-carnitine
- *Panax ginseng*
- Others might include: amino acids, choline, *Ginkgo biloba*, green tea, milk thistle, quercetin, ribose, yerba mate, yohimbe, other stimulants, etc.

Stable Aqueous Amide-Protected Bioactive Creatine Species – U.S. Patent No. 8,445,466

Nutrition Facts

Serving size 1 can (16 fl oz [473mL])

Amount per serving

Calories 0

	%Daily Value*
Total Fat 0 g	0%
Saturated Fat 0 g	0%
Trans Fat 0 g	
Cholesterol 0 mg	0%
Sodium 40 mg	2%
Total Carbohydrate 0 g	0%
Dietary Fiber 0 g	0%
Total Sugars 0 g	
Includes 0 g Added Sugar	0%
Protein 0 g	

Vitamin D 0 mcg 0%	• Calcium 5 mg 0%
Iron 0 mg 0%	• Potassium 85 mg 2%
Vitamin C 27 mg 30%	• Niacin 5 mg 30%
Vitamin B6 0.5 mg 30%	• Vitamin B12 1.5 mcg 60%
Magnesium 5 mg 1%	

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS: Carbonated water, natural flavors, citric acid, malic acid, caffeine, sodium benzoate (preserves freshness), potassium citrate monohydrate, sucralose, EAAs (L-leucine, L-isoleucine, L-valine, L-lysine, L-threonine, L-phenylalanine, L-histidine, L-methionine, L-tryptophan), potassium phosphate dibasic, vitamin C (ascorbic acid), potassium sorbate (preserves freshness), magnesium chloride, **SUPER CREATINE®** (Creatyl-L-Leucine [Creatine bonded to L-Leucine]), calcium chloride, calcium disodium EDTA, vitamin B3 (niacinamide), CoQ10 (coenzyme Q10), vitamin B6 (pyridoxine hydrochloride), and vitamin B12 (methylcobalamin).

Supplement Facts

Serving Size 8.0 fl.oz. (240 mL)
Servings Per Container: 2

Amount Per Serving		% Daily Value
Calories	**100**	
Total Carb	**27g**	**9%***
Sugars	27g	†
Riboflavin Vit B2	1.7mg	100%
Niacin Vit B3	20mg	100%
Vitamin B6	2mg	100%
Vitamin B12	6mcg	100%
Sodium	180mg	8%
Taurine	1000mg	†
Panax Ginseng	200mg	†
Energy Blend	2500mg	†
L-Carnitine, Glucose, Caffeine, Guarana, Inositol, Glucuronolactone, Maltodextrin		

*Percent Daily Values are based on a 2000 calorie diet. † Daily Value not established.

Considerations with Energy Drinks

- There is little evidence for the combination of ingredients
- May not provide any additional benefit for physical and mental performance when compared to caffeine alone
- Can cause fatigue from poor sleep quality and sleep disturbances
  - Stop using at least 6 hours before bedtime
- Should not be used for hydration
- Should not be used before, during, or after strenuous physical activity
- Should not replace meals or healthy dietary habits
- Should not be mixed with alcohol

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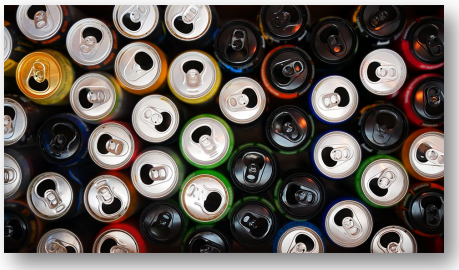
Considerations with Energy Drinks

Consider how much caffeine you are consuming in 24 hours

Look for energy drinks with 200 mg or less of caffeine

Too much caffeine can cause side effects such as:

- Headaches
- Insomnia
- Nervousness
- Irritability
- Fast heartbeat



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Energy Drink Position Statement

Department of Defense Nutrition Committee
Energy Drinks and Energy Shots Position Statement

Prepared by CHAMP and the Performance Nutrition Working Group under the DoD Food and Nutrition and Dietary Supplements and Other Self-Care Products Subcommittees

1. Introductory Statement

Energy products are heavily used by many Military Service Members. When energy products are overconsumed and/or used inappropriately they can pose a risk to the Military Service Member's health and negatively impact mission readiness.

2. Recommended Position

- Military Service Members (enlisted and officers) should receive education about safe use of energy drinks and energy shots and caffeine early in their careers.
- Healthcare providers should be educated about energy drinks, energy shots, and caffeine and encouraged to talk to Military Service Members, their families, and their patients (both young and old) about safe use of these products.
- Healthcare providers should report any adverse events they note in association with energy drinks to the Food & Drug Administration through their portal for dietary supplements (https://www.safetyreporting.hhs.gov).

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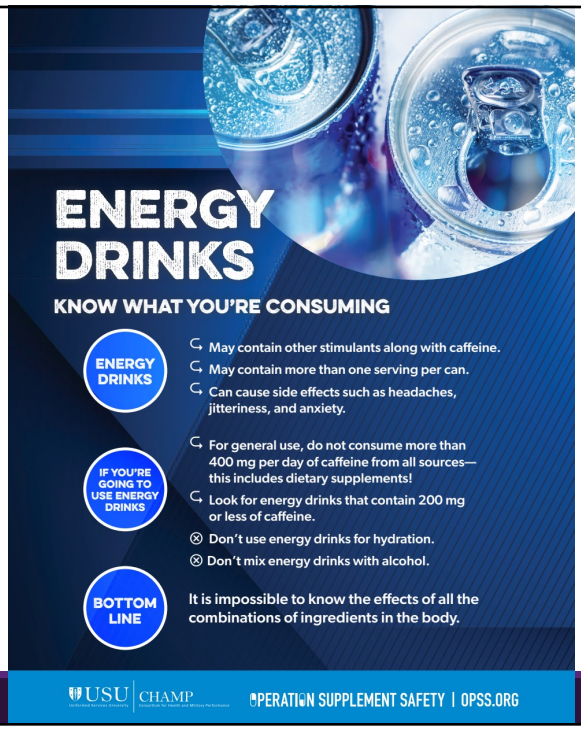

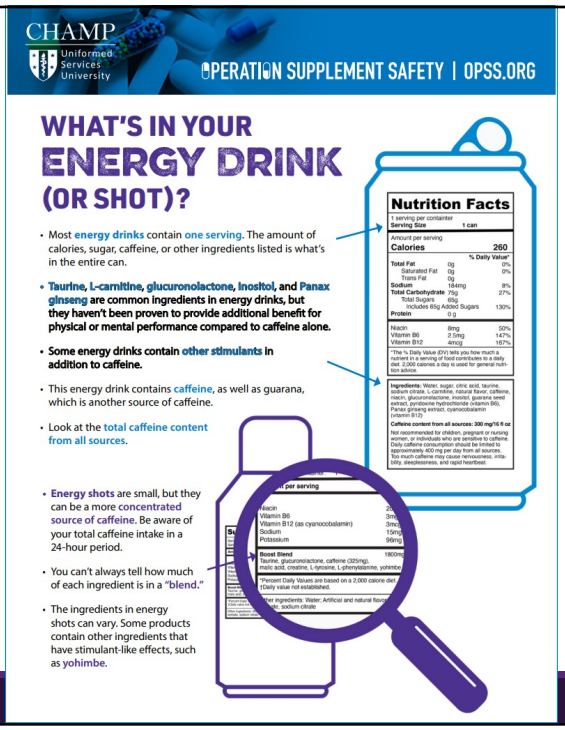

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OPERATION SUPPLEMENT SAFETY | OPSS.ORG

CBD and Hemp

BEFORE YOU USE A PRODUCT THAT CONTAINS CBD OR HEMP, HERE'S WHAT YOU SHOULD KNOW:

HEMP

- The 2018 Farm Bill defines hemp as…

"the plant Cannabis sativa L. and any part of that plant, including the seeds therof and all derivatives… with a delta-9 tetrahydrocannabinol concentration of not more than 0.3% on a dry weight basis."

- Delta-9 tetrahydrocannabinol, or **THC**, is the psychoactive substance in marijuana.
- Hemp plants naturally contain THC, but the amount in a plant can vary widely.
- Use of a product with THC could result in a positive drug test.
- ***All products containing hemp are prohibited for use by Service Members***, regardless of THC concentration. (This does not apply to durable goods such as rope or clothing.)

CBD

- Cannabidiol (CBD) is a chemical compound in the class of plant chemicals called "***cannabinoids***."

- CBD occurs naturally in the plant *Cannabis sativa* L. (marijuana and hemp).
- ***All products with CBD are prohibited for use by Service Members.*** This includes topical, inhaled (vaping), and oral products.
- Without laboratory testing, there is no way to know for certain whether a CBD product contains a significant amount of THC.

DoD POLICY

Hemp products, including those with CBD, are prohibited for use by Service Members.
For more information, please read the articles about CBD and hemp on **opss.org**.

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OPERATION SUPPLEMENT SAFETY | OPSS.ORG

DELTA-8-THC

BEFORE YOU USE A PRODUCT THAT CONTAINS DELTA-8-THC, HERE'S WHAT YOU SHOULD KNOW:

- Delta-8-tetrahydrocannabinol, or delta-8-THC, is a psychoactive substance found in the *Cannabis sativa* plant.
- Products containing delta-8-THC are prohibited for use by Service Members.
- Using products that contain delta-8-THC could result in a positive drug test.
- Delta-8-THC is often sold in the form of vape cartridges, infused hemp flower, beverages, and edibles such as gummies and candies.
- Products with delta-8-THC are not evaluated or approved by the Food and Drug Administration and might contain additional harmful ingredients or chemicals.
- Use of delta-8-THC could result in side effects such as vomiting, loss of consciousness, hallucinations, difficulty breathing, trouble standing, anxiety, dizziness, and confusion.

DoD POLICY

Hemp products, including those with CBD and delta-8-THC, are prohibited for use by Service Members.

For more information, please read the articles about CBD and hemp on opss.org.

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Resources and Tools to Evaluate Dietary Supplements

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Operation Supplement Safety

OPSS is the DoD's **go-to program** for anything related to health, wellness, and performance products. OPSS partners with other federal departments, professional organizations, and academic institutions to **provide evidence-based information**, resources, and tools for education and decision making.

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OPSS.org Website

- Evidence-based articles
- Ask the Expert portal
- Other resources
  - Videos
  - Handouts
  - Infographics
  - More

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DoDI 6130.06: Use of Dietary Supplements in the DoD

DoD Instruction 6130.06

Use of Dietary Supplements in the DoD

Originating Component:	Office of the Under Secretary of Defense for Personnel and Readiness
Effective:	March 9, 2022
Releasability:	Cleared for public release. Available on the Directives Division Website at https://www.esd.whs.mil/DD/.
Approved by:	Gilbert R. Cisneros, Jr., Under Secretary of Defense for Personnel and Readiness

- Formalizes OPSS as the DoD program for dietary supplements
- Requires education for Service Members, healthcare providers, and allied health professionals
- Mandates adverse event reporting by healthcare providers
- Establishes OPSS website as host for *DoD Prohibited Dietary Supplement Ingredients List*

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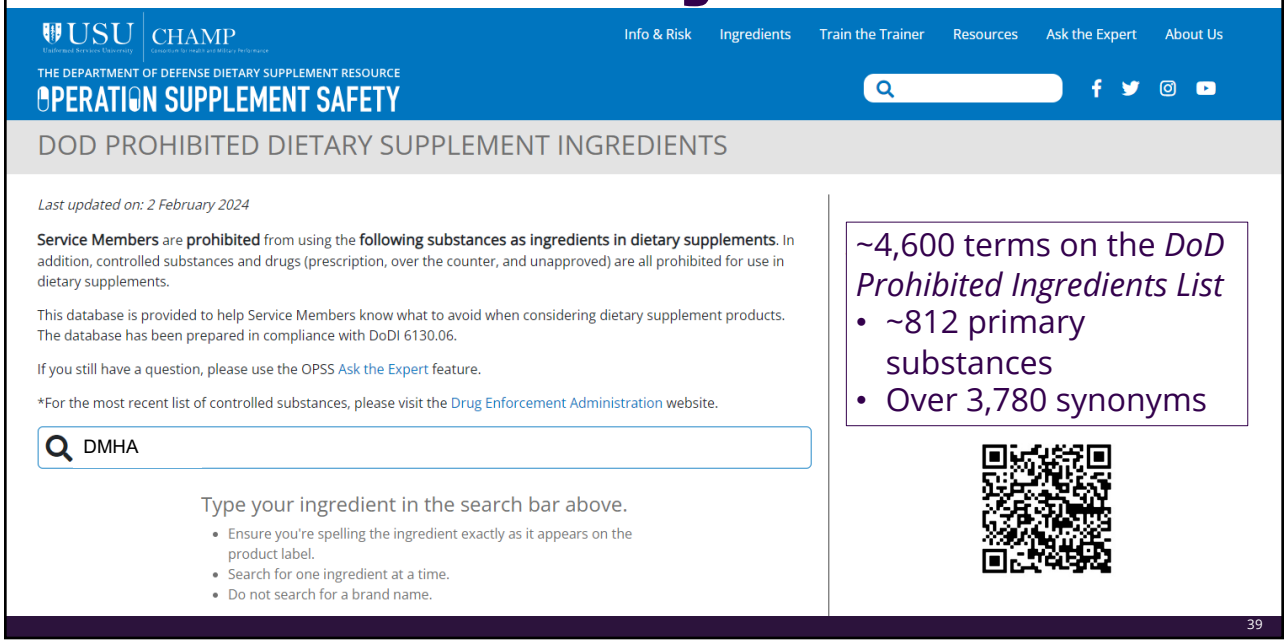
DoD Prohibited Ingredients List



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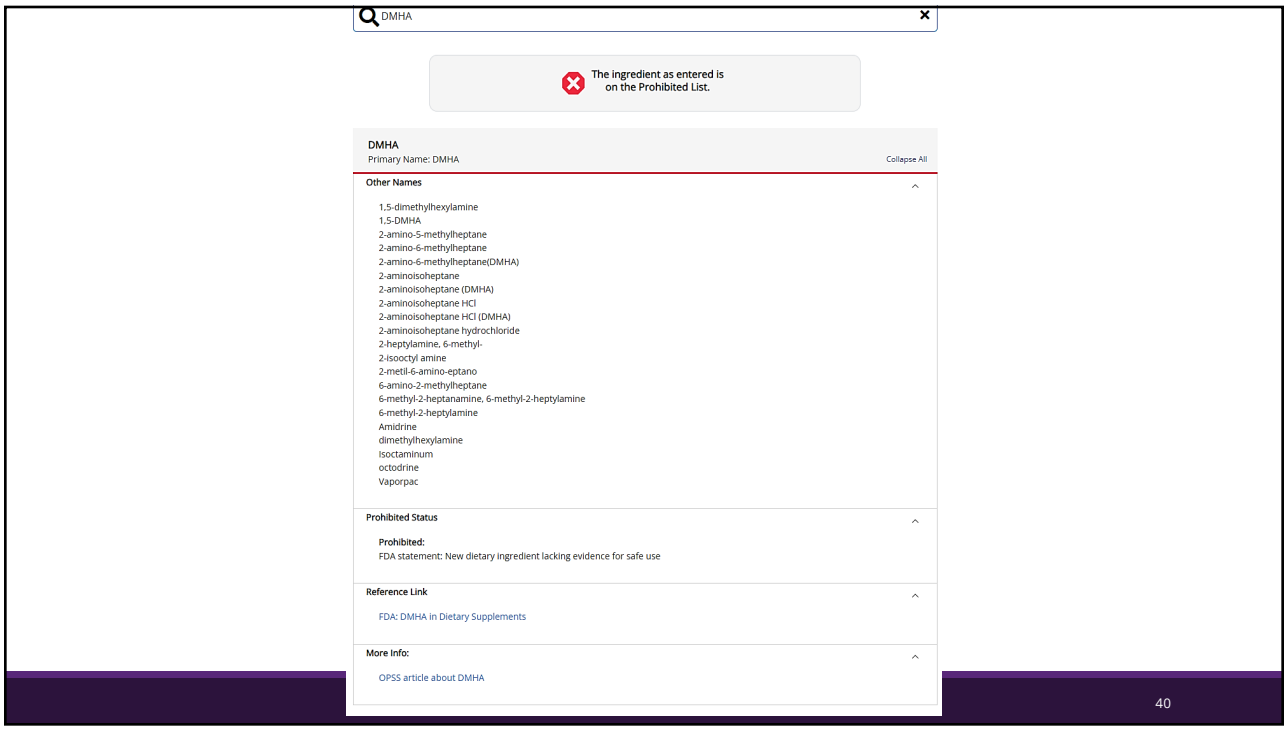

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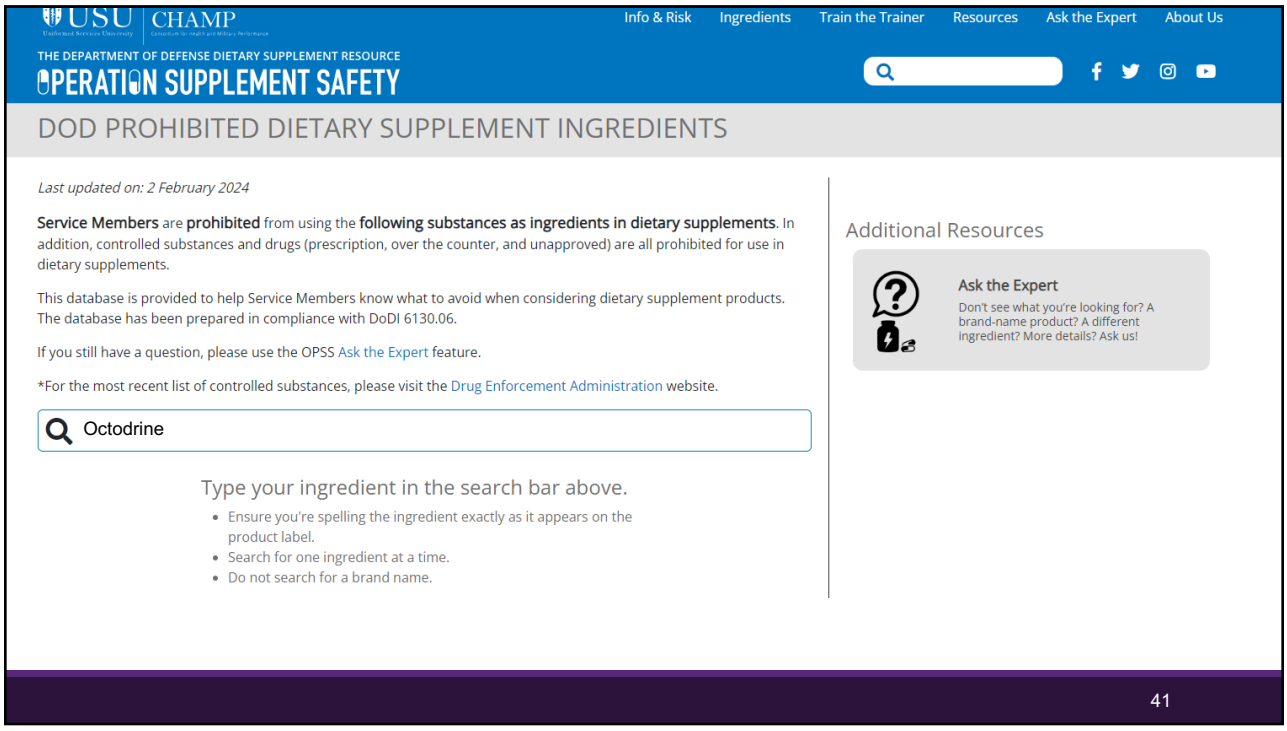
USU CHAMP
Info & Risk
Ingredients
Train the Trainer
Resources
Ask the Expert
About Us
THE DEPARTMENT OF DEFENSE DIETARY SUPPLEMENT RESOURCE
OPERATION SUPPLEMENT SAFETY
DOD PROHIBITED DIETARY SUPPLEMENT INGREDIENTS
Last updated on: 2 February 2024
Service Members are prohibited from using the following substances as ingredients in dietary supplements. In addition, controlled substances and drugs (prescription, over the counter, and unapproved) are all prohibited for use in dietary supplements.
This database is provided to help Service Members know what to avoid when considering dietary supplement products. The database has been prepared in compliance with DoDI 6130.06.
If you still have a question, please use the OPSS Ask the Expert feature.
*For the most recent list of controlled substances, please visit the Drug Enforcement Administration website.
Octodrine
Type your ingredient in the search bar above.
Ensure you're spelling the ingredient exactly as it appears on the product label.
Search for one ingredient at a time.
Do not search for a brand name.
Additional Resources
Ask the Expert
Don't see what you're looking for? A brand-name product? A different ingredient? More details? Ask us!
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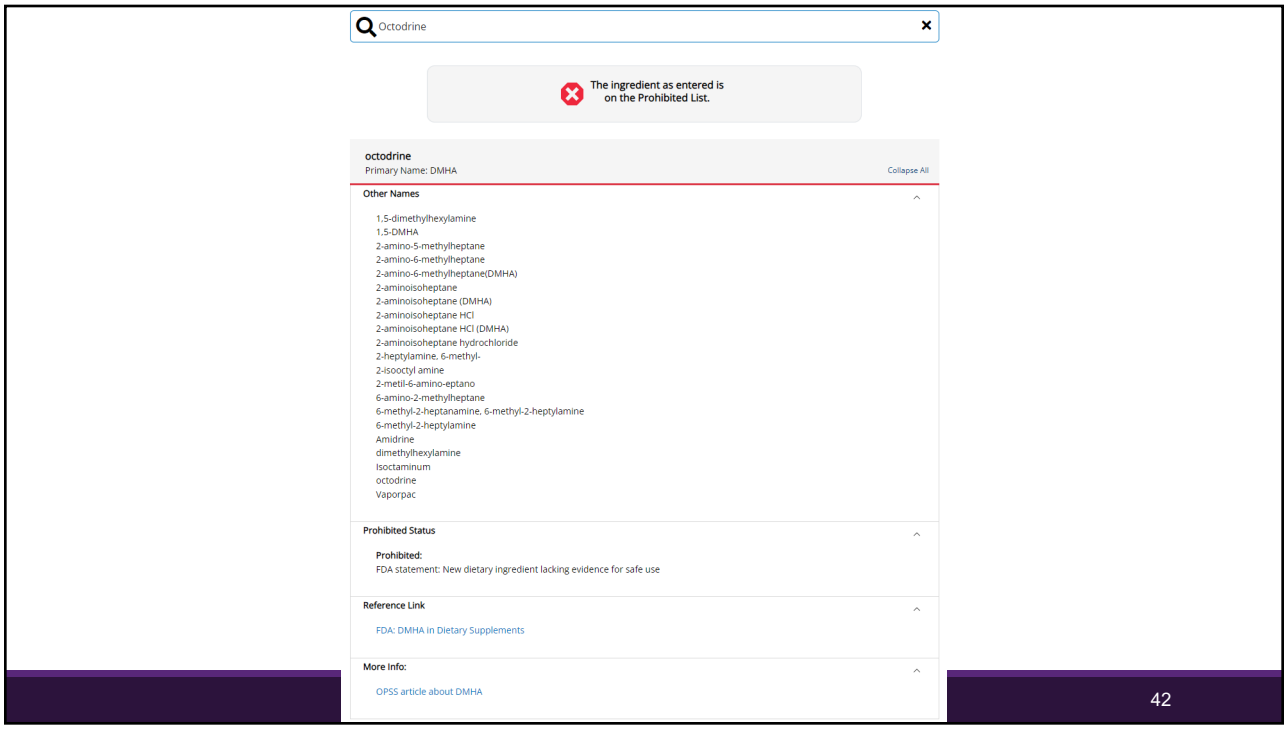
Octodrine
The ingredient as entered is on the Prohibited List.
octodrine
Primary Name: DMHA
Collapse All
Other Names
1,5-dimethylhexylamine
1,5-DMHA
2-amino-5-methylheptane
2-amino-6-methylheptane
2-amino-6-methylheptane(DMHA)
2-aminoisoheptane
2-aminoisoheptane (DMHA)
2-aminoisoheptane HCl
2-aminoisoheptane HCl (DMHA)
2-aminoisoheptane hydrochloride
2-heptylamine, 6-methyl-
2-isooctyl amine
2-metil-6-amino-eptano
6-amino-2-methylheptane
6-methyl-2-heptanamine, 6-methyl-2-heptylamine
6-methyl-2-heptylamine
Amidrine
dimethylhexylamine
Isoctaminum
octodrine
Vaporpac
Prohibited Status
Prohibited:
FDA statement: New dietary ingredient lacking evidence for safe use
Reference Link
FDA: DMHA in Dietary Supplements
More Info:
OPSS article about DMHA
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OPSSupp App

- Will provide the ability to search for a dietary supplement based on its name or by scanning its barcode
- Will provide information about:
  - Prohibited ingredients
  - Safety concerns
  - Third-party certification
  - FDA warnings and alerts

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Screen your supplement for safety. Read the label on your supplement and mark 1 for "yes" and 0 for "no."

Key questions you can answer:	Yes=1	No=0
Is any one of these **third-party certification** seals on the product label?		
Are there **less than six ingredients** on the Supplement Facts label?		
Is the label free of the words **proprietary, blend, matrix,** or **complex**?		
Can you **easily pronounce the name** of each ingredient on the Supplement Facts label?		
Is the amount of caffeine listed on the label **200 mg or less** per serving? (If caffeine is not listed, mark "1.")		
Is the label free of **questionable claims** or **statements**?		
Are all the % Daily Values (% DV) on the Supplement Facts label **less than 200%**? (If % DV is not listed, mark "0.")		
Total: Add up the "1s." 4 or more is okay. Less than 4 is a "no-go."		

Questions about dietary supplements?

Ask the OPSS experts at OPSS.org/ask-the-expert

OPERATION SUPPLEMENT SAFETY (OPSS)

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OPSS Scorecard Questions

Third-Party Certification

- Products with third-party certification/ verification seals have been evaluated for ***quality*** and ***purity***:
  - Banned Substances Control Group (BSCG)
  - Informed-Choice
  - NSF International
  - United States Pharmacopeia

What do these seals mean?

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Combination of Ingredients

- More ingredients = Higher risk of interactions
  - Interactions could occur from mixing together the ingredients in the product itself, other dietary supplements, medications, etc.
- "Other Ingredients" not included in total

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Percent Daily Value (%DV)

- How much of a nutrient in a single serving of a dietary supplement contributes to your daily diet.
- 35 nutrients have established daily values

	% Daily Value*
Total Fat 9g	**12%**
Saturated Fat 4.5g	**23%**
Trans Fat 0g	
Cholesterol 35mg	**12%**
Sodium 850mg	**37%**
Total Carbohydrate 34g	**12%**
Dietary Fiber 4g	**14%**
Total Sugars 6g	
Includes 0g Added Sugars	**0%**
Protein 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

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Proprietary Blends

- The amount of each individual ingredient does not have to be listed
- May be listed as a
  - "Blend"
  - "Complex"
  - "Matrix"
  - "Formulation"
- Especially important in the case of stimulants

Supplement Facts
Serving Size: 1 Capsule
Servings per Bottle: 60

	Amount Per Serving
Proprietary Blend	377mg
1,3,7 - Trimethylxanthine; Beta-Phenylethylamine; Synephrine HCL; N,N-dimethyl-4-hydroxyphenyl-ethylamine; Schizandrol A; 5-Hydroxytryptophan; Yohimbine HCL	

** Daily Value Not Established

Other Ingredients:
Magnesium Stearate; Silicon Dioxide.

50

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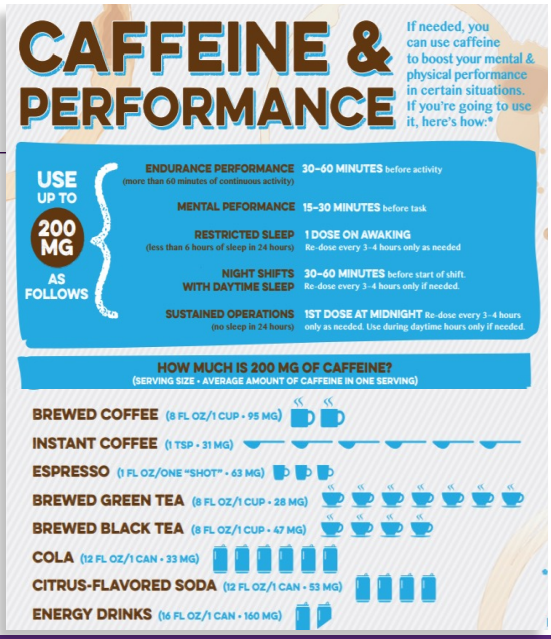
Caffeine

Other sources/names of caffeine:

- Cacao
- Caffeine anhydrous
- Coffee
- Green coffee bean
- Guarana
- Kola nut
- Methylxanthine
- Tea
- Trimethylxanthine
- Xanthine
- Yerba maté



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Questionable Claims

- Prevents severe memory loss
- Boosts testosterone levels and sex drive
- Lose weight 6x faster
- Maximizes muscle recovery and growth
- Rapid sleep enhancer
- Legal steroid
- Natural cure for diabetes
- Cures COVID-19

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Practical Application

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Scoring Products with the OPSS Scorecard

Prohibited Ingredients: None

SUPPLEMENT FACTS

Serving Size: 1 Level Scoop (11.5 g)
Servings Per Container: 30

	Amount Per Serving	%DV
Calories	0	
Total Carbohydrate	0 g	0%*
Sugars	0 g	**
Magnesium	10 mg	3%
Sodium	220 mg	9%
Potassium	180 mg	5%
L-Leucine	3500 mg	**
Electrolyte Blend [BetaPower ® Betaine Anhydrous, Sodium Citrate, Potassium Chloride, Sodium Chloride, Magnesium Citrate, Coconut (*Cocos nucifera*) water powder]	1890 mg	**
L-Isoleucine	1750 mg	**
L-Valine	1750 mg	**

*Percent Daily Values (%DV) based on a 2,000 calorie diet.
**Daily Value (DV) not established.

Other Ingredients: Malic Acid, Citric Acid, Silicon Dioxide, Natural & Artificial Flavors, Sucralose, Acesulfame Potassium, FD&C Red #40.

CONTAINS: Tree Nuts (Coconut).

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54

Scoring Products with the OPSS Scorecard

SUPPLEMENT FACTS
Serving Size: 1 Level Scoop (11.5 g)
Servings Per Container: 30

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**Daily Value (DV) not established.

Other Ingredients: Malic Acid, Citric Acid, Silicon Dioxide, Natural & Artificial Flavors, Sucralose, Acesulfame Potassium, FD&C Red #40.
CONTAINS: Tree Nuts (Coconut).

Is any one of these third-party certification seals on the label?*	Are there less than six ingredients on the Supplement Facts label?	Is the label free of the words proprietary, blend, matrix, or complex?	Can you easily pronounce the names of each ingredient on the Supplement Facts label?	Is the amount of caffeine listed on the label 200 mg or less per serving? (If caffeine is not listed, mark "1.")	Is the label free of questionable claims or statements?	Are all the % Daily Values (% DV) on the Supplement Facts label less than 200%? (If % DV is not listed, mark "0")	**Total Score**

55

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OPSS SCORECARD: CHECK YOUR DIETARY SUPPLEMENT

Are you considering using a dietary supplement as a pre-workout, for weight loss, or to improve your health goals? Read the label of your product and answer 7 questions about topics such as third-party certification and proprietary blends to help screen your supplement for safety.

Is any one of these **third-party certification seals** on the product label?	✓ Yes	✗ No
Are there **less than six ingredients** on the Supplement Facts label?	✓ Yes	✗ No
Is the label free of the words **proprietary, blend, matrix,** or **complex**?	✓ Yes	✗ No
Can you **easily pronounce the name** of each ingredient on the Supplement Facts label?	✓ Yes	✗ No
Is the amount of caffeine listed on the label **200 mg or less** per serving? (If caffeine is not listed, mark "Yes")	✓ Yes	✗ No
Is the label free of **questionable claims** or **statements**?	✓ Yes	✗ No
Are all the % Daily Values (% DV) on the Supplement Facts label **less than 200%**? (If % DV is not listed, mark "No")	✓ Yes	✗ No

SUPPLEMENT SCORE
4 or more is okay. Less than 4 is a "no-go."
It's also a "no-go" if it contains any ingredients on the Prohibited List. Use the button below to check.

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Ask the Expert Questions

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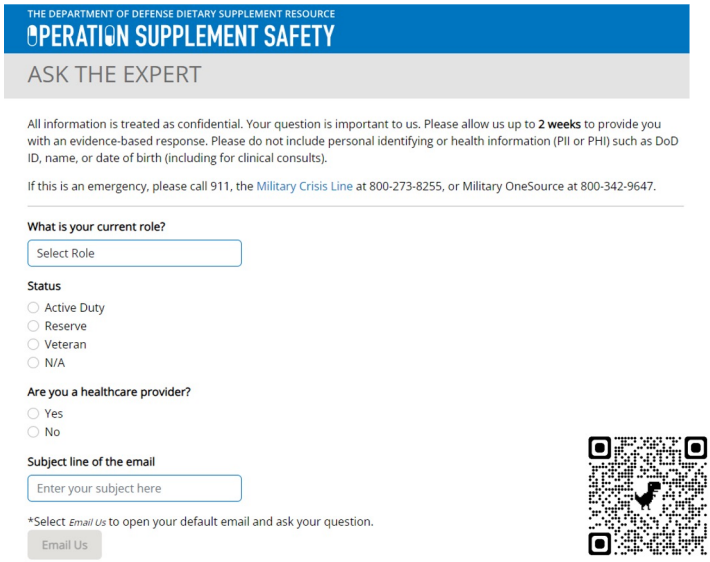
Dietary Supplement Ask the Expert (ATE)

- Submit questions about anything related to dietary supplements
- Receive evidence-based responses



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Questions From the Field

I wanted to know if I'm able to take a pre workout called XXX it says it has new ingredients that removed DMAA. Can you please let me know? Thank you.

- AD Guardian

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Concerns with Pre-Workout

Ingredients on the DoD Prohibited List

- 2-aminoisoheptane (DMHA)
- Geranium extract (DMAA?)

Other Ingredients of Concern

- Agmatine sulfate
- *Quebracho blanco* (contains yohimbine)

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Questions From the Field

Are any of these ingredients from a fat burner can show positive on a drug test? Please advise. Thank you!

- AD Sailor

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Concerns with Fat Burner

Ingredients on the DoD Prohibited List

- 2-aminoisoheptane (DMHA)
- Higenamine
- Hordenine
- Vinpocetine

Other Ingredients of Concern

- Caffeine Anhydrous (300 mg)
- Huperzine A
- Synephrine
- Yohimbine

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Questions From the Field

A local supplement retail shop has recently opened and provided a variety of free samples. I simply wanted to run a quick background check on the products to ensure its safety for other service members and poolees in the delayed entry program:

1. Pre-workout
2. Post-workout
3. Pre-workout
4. Protein powder

- AD Marine

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Concerns with Pre-Workout

Ingredients on the DoD Prohibited List

- Isopropylnorsynephrine

Other Ingredients of Concern

- Agmatine Sulfate
- Beta phenylethylamine
- Caffeine anhydrous (450 mg)
- Huperzine A

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Questions From the Field

Hello. Wondering if this pre workout is safe DoD wide, including all branches based on the ingredients. Doesn't appear to have DMAA or any of that meth stuff. Please let me know!

- Military Status Unknown

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Concerns with Pre-Workout

Ingredients on the DoD Prohibited List

- Higenamine
- Isopropylnorsynephrine

Other Ingredients of Concern

- Caffeine anhydrous (350 mg)
- Huperzine A

66

66

Questions From the Field

I was most recently looking into the dietary supplement XXX by XXX. After reviewing the ingredients I did find one ingredient outlined as banned. However the bottle says FDA Approved so I'm just trying to ensure it's within our DoD Policy and not a banned supplement.

- AD Soldier

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Concerns with Brain Health Product

Ingredients on the DoD Prohibited List

- Dimethylbutylamine (DMBA)
- Nefiracetam
- Tianeptine

Other Ingredients of Concern

- 1-benzoyl-4-propanoylpiperazine
  - May be similar to unapproved drug Sunifiram
- Rauwolscine
- Undisclosed amount of caffeine

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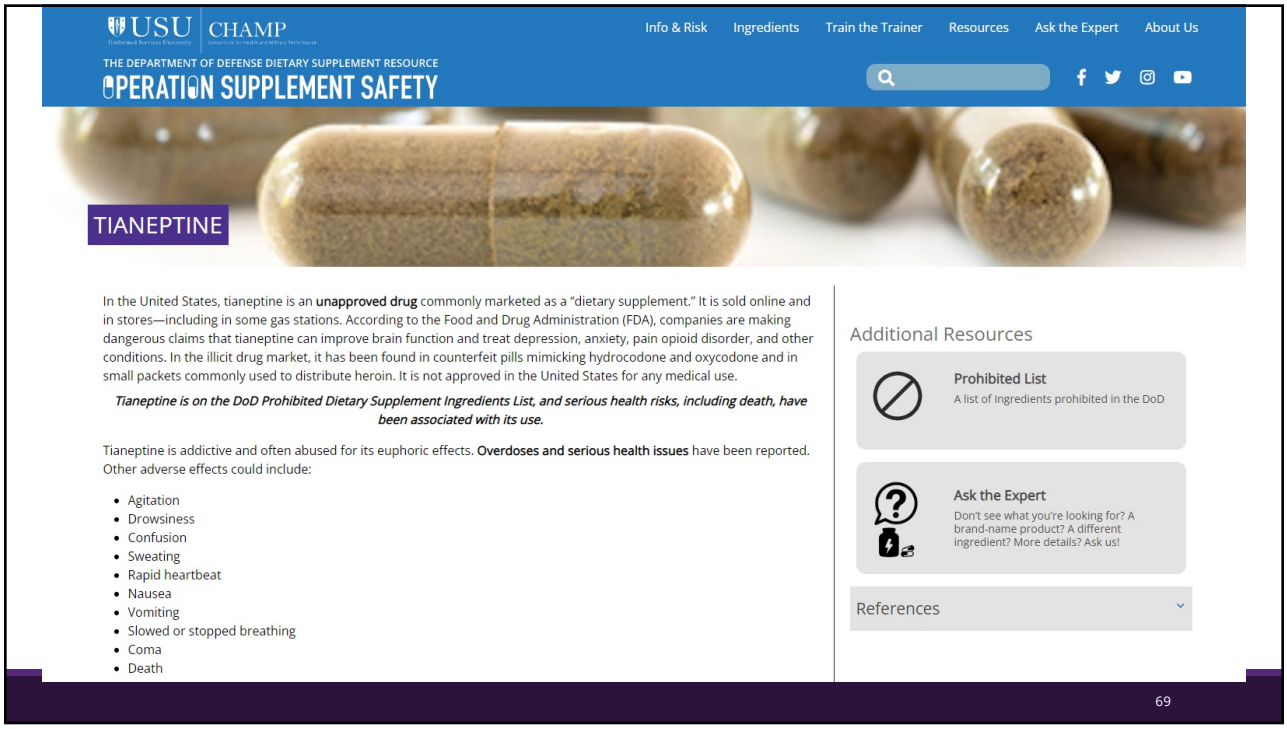

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Questions From the Field

Are any of these ingredients [on attached image] banned?

- AD Airman

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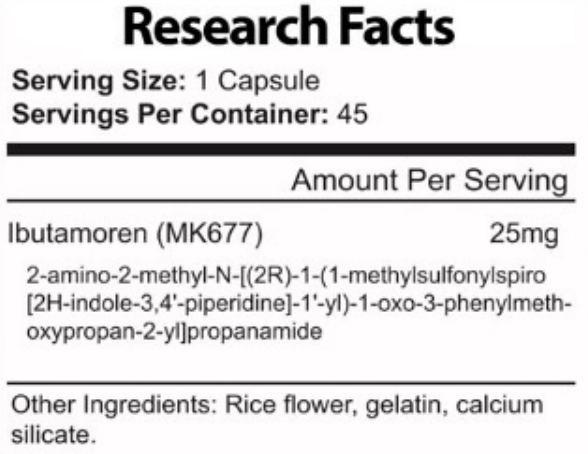
Concerns with "Research" Product

Ingredient on the DoD Prohibited List

- MK-677 (Ibutamoren)

Other Concerns

- Research Facts label



Research Facts

Serving Size: 1 Capsule
Servings Per Container: 45

Amount Per Serving	
Ibutamoren (MK677)	25mg

2-amino-2-methyl-N-[(2R)-1-(1-methylsulfonylspiro [2H-indole-3,4'-piperidine]-1'-yl)-1-oxo-3-phenylmeth-oxypropan-2-yl]propanamide

Other Ingredients: Rice flower, gelatin, calcium silicate.

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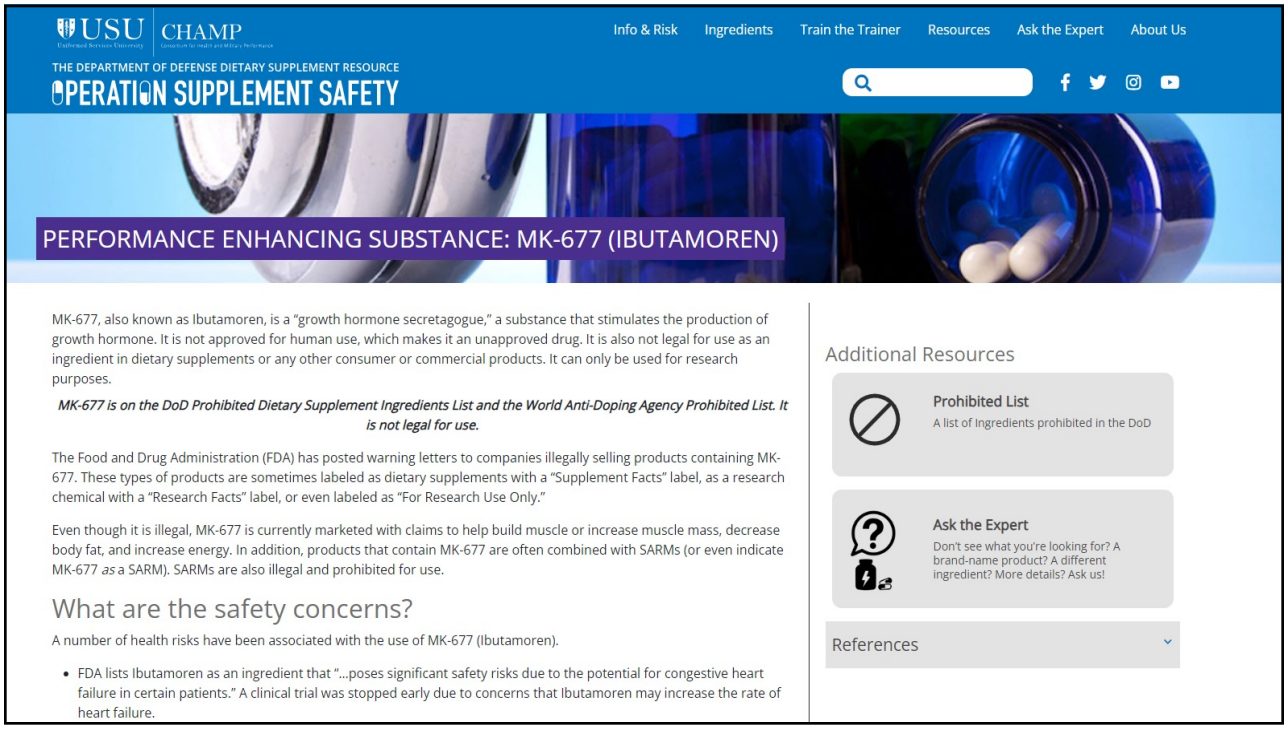

USU CHAMP

Info & Risk | Ingredients | Train the Trainer | Resources | Ask the Expert | About Us

THE DEPARTMENT OF DEFENSE DIETARY SUPPLEMENT RESOURCE

OPERATION SUPPLEMENT SAFETY

PERFORMANCE ENHANCING SUBSTANCE: MK-677 (IBUTAMOREN)

MK-677, also known as Ibutamoren, is a "growth hormone secretagogue," a substance that stimulates the production of growth hormone. It is not approved for human use, which makes it an unapproved drug. It is also not legal for use as an ingredient in dietary supplements or any other consumer or commercial products. It can only be used for research purposes.

MK-677 is on the DoD Prohibited Dietary Supplement Ingredients List and the World Anti-Doping Agency Prohibited List. It is not legal for use.

The Food and Drug Administration (FDA) has posted warning letters to companies illegally selling products containing MK-677. These types of products are sometimes labeled as dietary supplements with a "Supplement Facts" label, as a research chemical with a "Research Facts" label, or even labeled as "For Research Use Only."

Even though it is illegal, MK-677 is currently marketed with claims to help build muscle or increase muscle mass, decrease body fat, and increase energy. In addition, products that contain MK-677 are often combined with SARMs (or even indicate MK-677 *as* a SARM). SARMs are also illegal and prohibited for use.

What are the safety concerns?

A number of health risks have been associated with the use of MK-677 (Ibutamoren).

- FDA lists Ibutamoren as an ingredient that "...poses significant safety risks due to the potential for congestive heart failure in certain patients." A clinical trial was stopped early due to concerns that Ibutamoren may increase the rate of heart failure.

Additional Resources

Prohibited List
A list of Ingredients prohibited in the DoD

Ask the Expert
Don't see what you're looking for? A brand-name product? A different ingredient? More details? Ask us!

References

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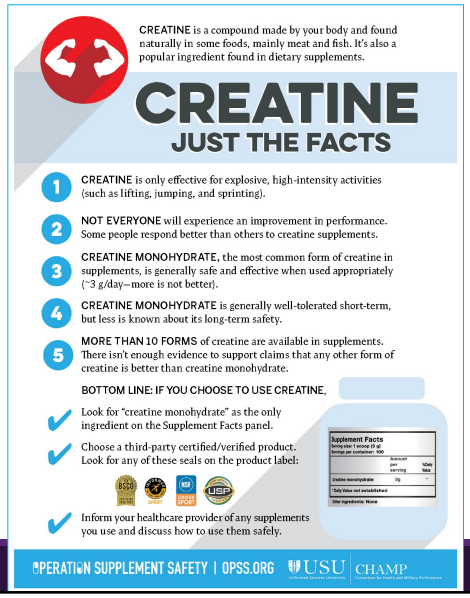
Other Tools and Resources

Educational Materials



CREATINE is a compound made by your body and found naturally in some foods, mainly meat and fish. It's also a popular ingredient found in dietary supplements.

CREATINE
JUST THE FACTS

1. CREATINE is only effective for explosive, high-intensity activities (such as lifting, jumping, and sprinting).
2. NOT EVERYONE will experience an improvement in performance. Some people respond better than others to creatine supplements.
3. CREATINE MONOHYDRATE, the most common form of creatine in supplements, is generally safe and effective when used appropriately (~3 g/day—more is not better).
4. CREATINE MONOHYDRATE is generally well-tolerated short-term, but less is known about its long-term safety.
5. MORE THAN 10 FORMS of creatine are available in supplements. There isn't enough evidence to support claims that any other form of creatine is better than creatine monohydrate.

BOTTOM LINE: IF YOU CHOOSE TO USE CREATINE,

- Look for "creatine monohydrate" as the only ingredient on the Supplement Facts panel.
- Choose a third-party certified/verified product. Look for any of these seals on the product label:
- Inform your healthcare provider of any supplements you use and discuss how to use them safely.

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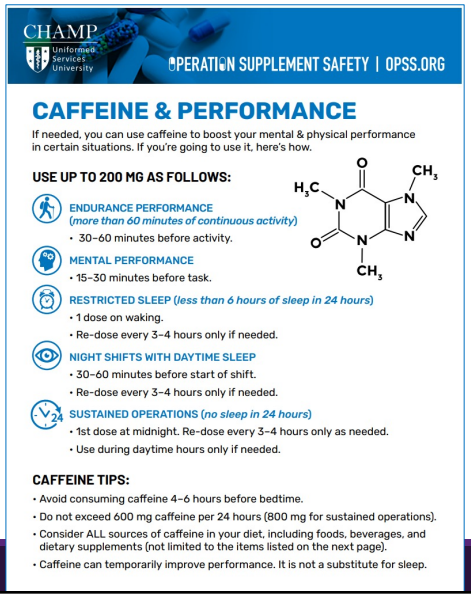

CHAMP Uniformed Services University

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CAFFEINE & PERFORMANCE

If needed, you can use caffeine to boost your mental & physical performance in certain situations. If you're going to use it, here's how.

USE UP TO 200 MG AS FOLLOWS:

ENDURANCE PERFORMANCE *(more than 60 minutes of continuous activity)*
- 30–60 minutes before activity.

MENTAL PERFORMANCE
- 15–30 minutes before task.

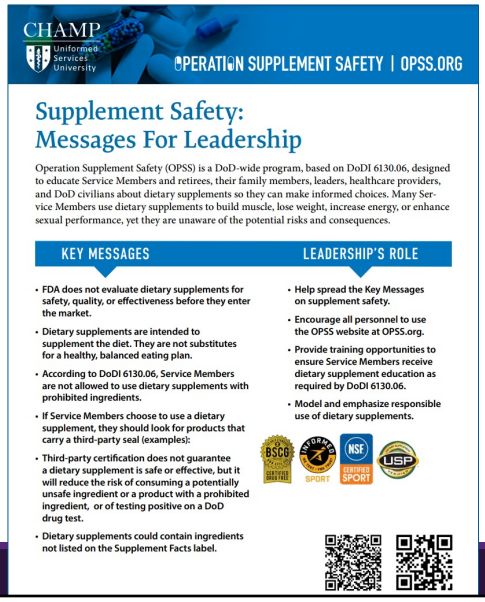
RESTRICTED SLEEP *(less than 6 hours of sleep in 24 hours)*
- 1 dose on waking.
- Re-dose every 3–4 hours only if needed.

NIGHT SHIFTS WITH DAYTIME SLEEP
- 30–60 minutes before start of shift.
- Re-dose every 3–4 hours only if needed.

SUSTAINED OPERATIONS *(no sleep in 24 hours)*
- 1st dose at midnight. Re-dose every 3–4 hours only as needed.
- Use during daytime hours only if needed.

CAFFEINE TIPS:
- Avoid consuming caffeine 4–6 hours before bedtime.
- Do not exceed 600 mg caffeine per 24 hours (800 mg for sustained operations).
- Consider ALL sources of caffeine in your diet, including foods, beverages, and dietary supplements (not limited to the items listed on the next page).
- Caffeine can temporarily improve performance. It is not a substitute for sleep.

Educational Materials



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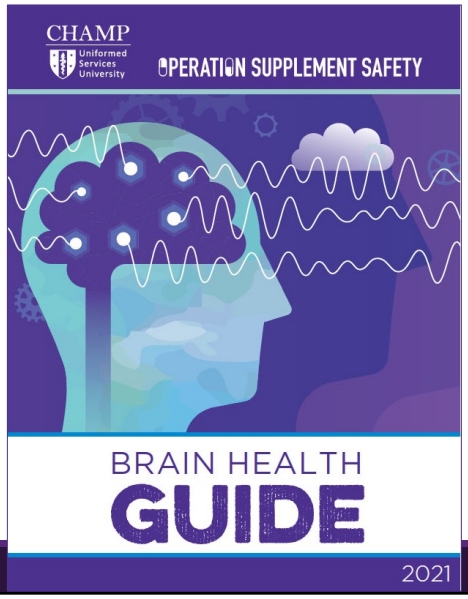
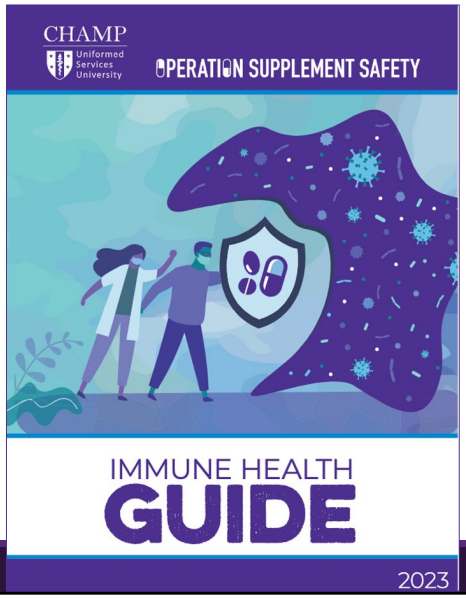
Educational Materials





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Educational Materials

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ARE YOU LOOKING FOR INFORMATION ON DIETARY SUPPLEMENTS?

OPERATION SUPPLEMENT SAFETY CAN HELP!

Some of the tools and resources provided by OPSS include:

- DoD Prohibited List
- Evidence-based articles
- Handouts, guides, posters, and videos
- OPSS Scorecard
- Presentations and trainings

To learn more visit OPSS.org and follow us on Facebook, Instagram, Twitter, and YouTube.

OPERATION SUPPLEMENT SAFETY | OPSS.ORG

IS YOUR DIETARY SUPPLEMENT SAFE?

Here are some red flags to look out for:

- It lists an ingredient on the DoD Prohibited List
- It's missing a third-party certification seal
- It's marketed for bodybuilding, weight loss, or sexual enhancement
- It has questionable or "quick fix" claims
- It's listed on FDA's Tainted Supplements page

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STILL HAVE A QUESTION?

ASK AN EXPERT AT OPSS.ORG!

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Social Media

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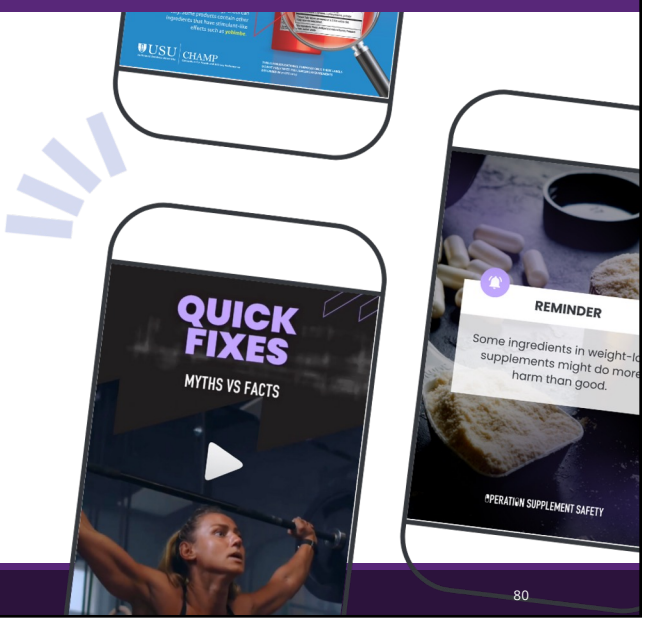

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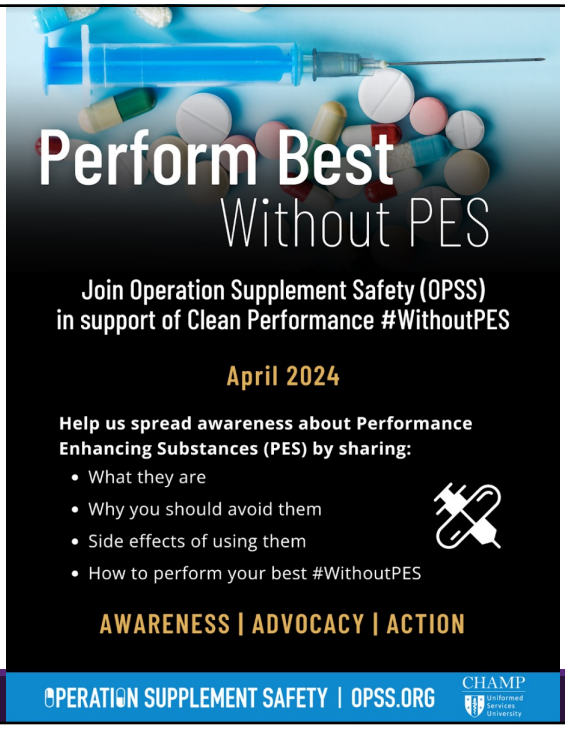

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For Further Information

Visit the Operation Supplement Safety website at **OPSS.org**

OR

Contact:

Andrea Lindsey, MS
Director, OPSS

Andrea.lindsey.ctr@usuhs.edu

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Questions?

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Upcoming Event

Food Allergies:
An Overview and Update
Thursday, April 25, 2024

Food allergies are a growing global health concern. In the last decade, there has been a paradigm shift in the prevention, diagnosis, and management of food allergy. Attend this webinar to learn state of the art, evidence-based practical approaches to common pediatric food allergies.

Continuing education credit will be available for this session!

Oneop.org/learn/160038/

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Continuing Education

This webinar has been approved for the following continuing education (CE) credits:

- 1.5 CPEU from the **Commission on Dietetic Registration** for RDNs
- 1.5 CE from the **American Association for Family & Consumer Sciences (AAFCS)** for CFCS.
- 1.5 CE from the **American Association for Family & Consumer Sciences (AAFCS)** for CNWE.
- Certificate of attendance

Evaluation Link

Go to the event page for the evaluation and post-test link.

Continuing Education

Questions?

Email Bethany Daugherty:
OneOpNutritionWellness@gmail.com

Oneop.org/learn/160021/

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