

## What's Trending Now: Are your student-athletes "vapers"?

Ryan Carpenter, Director of Education Services

Marketing campaigns with such slogans as "Why Quit?" and "Rise from the Ashes," have propelled a new player into the game: E-cigarettes. Also known as "vaping," smokers inhale and exhale much the same as traditional cigarettes through a battery-powered atomizer that heats a liquid blend. E-cigarettes were designed to remove the carcinogenic properties found in tobacco, yet spare nicotine, the addictive ingredient from tobacco plants. The typical anatomy of an e-cigarette consists of a solvent such as propylene glycol or vegetable glycerin, flavoring agents, nicotine, and a metal battery used to heat the liquid.

Marketing efforts target younger generations with catchy slogans, the facade of a sexy and "healthy" alternative to cigarettes, and enticing flavors such as grape, watermelon and kiwi. As of January 2014, there were almost 8,000 different flavors of e-cigarettes being distributed by more than 450 different brands. However, it must be emphasized that much like dietary supplements, there is a considerable lack of federal regulation on e-cigarettes. There are no labeling, ingredients, or manufacturing guidelines established to protect the consumer.

Labeling issues have been identified when some "no nicotine" liquid blends were tested and found to contain significant amounts of nicotine. Studies on the composition and chemicals found in a variety of e-cigarette brands show the presence of harmful chemicals and by products such as tobacco-specific nitrosamines, aldehydes (such as formaldehyde), heavy metals, volatile organic compounds, and tobacco alkaloids, to name a few.

The California Department of Public Health recently issued a warning letter to health professionals detailing a number of health concerns linked to e-cigarettes including the possibility of consuming toxic chemicals known to cause cancer. Other considerations for health are the dangerous side effects of nicotine: addiction, development issues, and immune suppression.

E-cigarettes have also introduced the use of "vape pens" which are similar to e-cigarettes except users can add their own ingredient blends such as marijuana concentrates or hash oil. These concentrates or oils can contain anywhere from 20 to 90 percent THC, the psychoactive chemical in marijuana. The vapor exhaled from THC-containing e-cigarettes masks the identifiable smell of marijuana; thus, making it difficult to distinguish between standard e-cigarettes and THC products.

Recent studies show the use of e-cigarettes continues to increase significantly year after year, especially among high school and college-aged populations. What's even more alarming is e-cigarettes have created a new category of smokers—those who report vaping, but no prior smoking of traditional cigarettes. These are "new" smokers. One study found the rate of new smokers to be at least one in every ten college students who had ever used an e-cigarette. Thus, the cigarette industry has found alternative ways to expand and draw in new consumers.

Athletic department staff should stay abreast of these trends in an effort to proactively educate and deter use for the health and safety of student-athlete populations. Providing timely, accurate and continuing education is the key to empowering student-athletes with the information they need to make healthy and responsible decisions.

References available upon request. Please email [lulfers@drugfreesport.com](mailto:lulfers@drugfreesport.com).



A standard vape-pen with similar anatomy to electronic cigarettes.

## CSMAS Recommendation (cont. from Page 1)



(Step Up!), and drug testing for UNPEDs. In these efforts, drug testing can be both targeted and random, with the purpose of identifying student-athletes who require intervention for health or addiction issues.

In the bio-psycho-social model, drug testing is analogous to focused medical exams for student-athletes with physical ailments such as an ACL (knee) injury. Just as there is no immediate or uniform 6-month or 12-month ban from competition for the student-athlete who suffers an ACL injury, there would be no set sanction for the athlete who tests positive for alcohol or other recreational drug use. Rather, student-athletes would enter a program of focused and appropriate rehabilitation.

The treatment parallel is similar for both physical injuries and drug use. If the student-athlete refuses to become involved in meaningful rehabilitation for an ACL injury, then ultimately, a decision is made to remove the student-athlete from athletics competition. Similarly, if a student-athlete refuses to participate in meaningful behavioral interventions for drug use, then he/she is banned from athletics competition. Both processes are integrative, progressive, and specific to the needs of the student-athlete.

Adapting this proposed legislation would require a bold commitment from the NCAA membership to increase their efforts in the effective deterrence of both PEDs and UNPEDs. This is a shared commitment that will strongly demonstrate that the NCAA is at the forefront of developing and implementing effective drug deterrence strategies that protect the integrity of sport, while enhancing student-athlete safety, excellence and wellness.

*Editor's Note:* The December 2014 CSMAS recommendation will undergo a NCAA governance review process in order to attain sponsorship as proposed legislation. Should the recommendation achieve sponsorship, it will be subject to NCAA membership vote at the 2016 Convention and assigned an effective date of August 2016.

# Drug Free Sport News

## Can your athletes "beat" a drug test?

Michaela Stemmons, Senior Sport Drug Testing Program Manager

When student-athletes provide multiple diluted or abnormally colored urine samples, clients commonly ask Drug Free Sport about masking agents and other products used to "beat" a drug test. Student-athletes can purchase a multitude of products that claim to "cleanse, detox and purify" the body, many of which come with a general instruction to drink a significant amount of water. However, no ingredient listed in over the counter (OTC) products can directly mask a banned substance. These products primarily serve to discolor the urine, increase fluid intake, and provide false hope at a high price point. Multivitamins, B-complex vitamins, and certain foods (e.g. beets) consumed by athletes may also affect urine color.

Drinking a significant amount of water could be an effective way to "beat" a drug test if the specific gravity (concentration level) of urine samples is not measured. Because of the importance of this step, Drug Free Sport's drug-testing procedures require a minimum specific gravity in order for a sample to be accepted. A student-athlete only delays the collection process when they over-hydrate, as they will have to provide urine samples until the minimum concentration level is met.

Finally, should a student-athlete be selected for drug testing based on reasonable suspicion, and the results are reported as negative for a banned substance (such as marijuana), it does not mean they "beat" the drug test. In this case, the amount of the banned substance ingested had been eliminated by normal metabolic processes prior to test time, or excreted levels of the substance were below the specific drug-testing panel cut-off points.

## Upcoming Webinar: Advantages and Disadvantages of Drug-Testing in Different Matrices: Urine vs. Oral Fluid vs. Hair vs. Blood

With four drug-testing matrices to choose from, selecting the best option for the targeted population and drug-testing panel comes with a menu of pros and cons. This webinar will provide attendees a detailed overview of blood, hair, saliva, and urine drug-testing protocols from industry experts. Through the evaluation of the advantages and disadvantages of each matrix, attendees will be able to identify the best drug-testing method for their targeted needs. To register: please visit [www.drugfreesport.com](http://www.drugfreesport.com).

### Learning Objectives:

1. The attendee should be able to provide relative detection window per matrix.
2. The attendee should be able to identify which matrix makes the best "sense" for their program needs.
3. The attendee should be able to understand the relative costs and difficulty to obtain the specimen for each matrix.



Webinar experts shown left to right:

Dr. David J. Kuntz (Executive Director of Analytical Toxicology, Clinical Reference Laboratory); Dr. Kathy Turpin (Vice President of Sport Drug Testing, Drug Free Sport); and Chris Nordby (Director of Client Services, Drug Free Sport).

## Drug Free Sport continues to grow!

### Michael Beissenherz, Quality Assurance Specialist

Michael is Drug Free Sport's newest staff member with a background in business management from the University of Missouri, and past work as a sports coordinator for high school athletes advancing to the collegiate level. Outside of the office, he enjoys extreme sports such as skydiving and SCUBA diving.

### Deborah K. "Deb" Maiwald, Accounting Clerk

Deb joins Drug Free Sport with 20 years' experience in all areas of accounting operations, finance, and contracts. A Kansas City Native, Deb holds an MBA with Management Emphasis and BBA with an Accounting and Finance Emphasis from the University of Missouri – Kansas City. In her spare time, Deb is an avid volunteer for several non-profit organizations such as Toastmasters International.

### Rachel Ellis York, NFL Program Manager

Rachel is originally from Saugerties, NY and joins the Drug Free Sport team after working for the United States Military Academy at West Point as their Compliance Coordinator. When not exploring local sites in Kansas City, Rachel favorites Charleston, SC as her getaway destination of choice.

## ON THE ROAD AGAIN

### Will we be in your area?

Contact us to schedule an educational session!



**NAIA National Convention**  
Charlotte, NC  
April 10-14

**NCAA Division II APPLE Conference**  
Myrtle Beach, SC  
April 17-19

**NDSU & Minnesota State Moorhead Education Session**  
 Fargo, ND  
April 27-28

**CPSDA Conference & Expo**  
Point Clear, AL  
May 18-21

**Big Ten/ Big 12 Sports Medicine Meetings**  
Rosemont, IL/ Fort Worth, TX  
May 4-5/ May 7-8

**NATA Clinical Symposia & AT Expo**  
St. Louis, MO  
June 23-26

## DRUG FREE SPORT™ BELIEVES

- Testing is a necessary and effective drug-use prevention tool to develop athletes who are committed to success on and off the field.
- Athletics participation is a privilege, and athletes cannot be allowed to abuse drugs at their expense, the expense of their teammates or at the expense of their sport.
- Research shows that most athletes are drug free. Therefore, we will at all times treat athletes with dignity and respect, and above all else, protect their privacy.
- Strong relationships with certified, ethical sports drug-testing laboratories and collectors benefit our clients' drug-testing programs.
- Sports organizations differ in their philosophies on how to deter drug use. We support an organization's right to conduct its programs according to its principles and objectives.
- Not every sports organization shares our values, and we will not compromise what we believe in the name of increasing the bottom line.

### The National Center for Drug Free Sport®

For INSIGHT questions, comments, or to be added to our mailing list, please contact:  
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816.474.8655 [www.drugfreesport.com](http://www.drugfreesport.com)

# insight

## Drug Free Sport™

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Upcoming Webinar  
New Staff at Drug Free Sport

The National Center for Drug Free Sport, Inc.®  
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## CSMAS Recommends Removing Recreational Drugs from the NCAA Banned Drug List



Dr. Brian Hainline  
Chief Medical Officer for the NCAA

In December 2014, the Competitive Safeguards and Medical Aspects of Sports (CSMAS) committee met with NCAA Sport Science Institute task forces to deliberate the purpose and effectiveness of the year-round and Championships drug testing programs in the deterrence of both performance-enhancing drugs, alcohol and other recreational drugs. Ultimately, CSMAS concluded the NCAA should take a new direction in drug testing and drug education; one that is both evidence-based and monitored for effectiveness.

The specific CSMAS recommendation is:

To amend the NCAA Bylaw that defines NCAA banned drugs in order to create a two-tiered published list of drugs:

- I. **Banned Performance-Enhancing Drugs, and;** (Box 1.1)
- II. **Unacceptable Non-Performance Enhancing Drugs.** (Box 1.2)

CSMAS is asking the NCAA membership to differentiate between performance-enhancing drugs (PEDs) such as anabolic steroids, growth hormone and blood doping, from non-performance-enhancing drugs such as alcohol, marijuana and opiates. Furthermore, CSMAS is recommending the NCAA limit the list of banned drugs to PEDs, and should test for these substances in a robust manner both year-round and at NCAA Championships events.

The NCAA needs to create a deterrence model that shifts student-athlete perceptions to a greater likelihood that they can undergo drug testing on any given day. An effective deterrence model for PEDs also includes a more deliberate partnership with association conferences, including a transparent system of uniform penalties for positive test results.

The proposed CSMAS legislation removes recreational drugs – specifically marijuana, synthetic cannabinoids and heroin from the “banned” drug list and itemizes them under a newly created “Unacceptable Non-Performance Enhancing Drugs” (UNPEDs) title. Some NCAA member institutions believe in the statement made by continued testing for marijuana at NCAA Championship events. However, such a position ignores the reality that ingestion of other UNPEDs is widespread (e.g., alcohol) or increasing exponentially (e.g., opiates). Furthermore, student-athletes who have been penalized for testing positive for marijuana at NCAA Championships have a greater than 90 percent chance of never returning to sport as a student-athlete. In this circumstance, the ability of the institution to effectively intervene and help correct behavior is lost.

Evidence tells us the most effective deterrence model for UNPEDs is a bio-psycho-social medical model that may include drug-testing as part of a comprehensive deterrence and treatment strategy. In essence, CSMAS is saying the current strategy of testing for UNPEDs such as marijuana and heroin has been ineffective in either deterring drug use or in developing a doping, drug education and drug testing program that has a consistent and convincing message.

What is a bio-psycho-social model of drug use deterrence?

Empirical data reveal that the most effective means of addressing UNPEDs in a comprehensive and wholistic manner is through a bio-psycho-social model. Such a model has 3 primary characteristics:

- (1) Recognize the mind-body connection and the impact of environmental factors on individual health, wellness and behavior;
- (2) Emphasize that biological, psychological and social realities play a significant role in health and wellness;
- (3) Assert that addressing such issues in an integrated model – that often includes drug testing – is critical for individual adherence to health promoting or treatment behaviors.

#### Box 1.1

##### Performance-Enhancing Drugs (PEDs)

PEDs are drugs or substances that allow an athlete to attain an otherwise unreachable level of performance. They work through some combination of: (1) muscle or skeletal growth; (2) increased work potential, either through hastened recovery or diminishing fatigue; (3) increased focus or aggression. PEDs also include drugs that may mask the detection of other PEDs. By effectively deterring PEDs, the NCAA is providing clean athletes a fair contest. Without effective deterrence, there is the possibility that PEDs will not be contained within sport and encourage never-ending pressure to use more drugs, at higher dosages, and in potentially dangerous combinations. Because of the relentlessly competitive structure of sport, effective deterrence of PEDs is both an ethical concern and an important public health concern that prevents massive pharmaceutical experimentation by athletes.

#### Box 1.2

##### Unacceptable Non-Performance Enhancing Drugs (UNPEDs)

Unacceptable Non-performance Enhancing Drugs (UNPEDs) is the terminology previously used for “recreational drugs.” These are drugs that are not used for the purpose of cheating or gaining an unfair competitive advantage, but are rather used in a social or recreational setting. Such drugs include alcohol, marijuana, opiates and tobacco. Marijuana use by college student-athletes has remained steady during the past decade. Testing for marijuana at NCAA Championship events is a poor deterrence model because a student-athlete simply has to stop smoking or ingesting marijuana prior to the Championship. Marijuana use is deterred in the short-run, but not year-round.

Adapting such a model requires a new level of partnership between NCAA member institutions and the Sport Science Institute. If such a model is to be effective, it means the time, energy and dedication spent addressing UNPEDs by both member schools and the Sport Science Institute must be more robust and comprehensive.

There are several member schools who have already implemented a successful bio-psycho-social medical model for UNPEDs. Typically, these schools utilize a combination of proactive education programs (myPlaybook; 360 Proof; Choices; APPLE), behavioral interventions

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