Drug Free Sport News

What's Trending Now: *Urine Markers on the Horizon to Assist Drug-Testing Collections*

Rachel York, NFL Program Manager

Key Points
The urine marker can identify urine as coming from a specific athlete.
The urine marker does not interfere with the detection of prohibited substances routinely monitored by a doping control laboratory.
The majority of surveyed athletes feel that the urine marker method is a good alternative to supervised urine collection and that it would help eliminate the problems some athletes experience with the standard doping control procedure.

Table from original article: Elbe, Anne-Marie, Stine Nylansted Jensen, Peter Elsborg, Monika Wetzke, Getachew A. Woldemariam, Bernd Huppertz, Ruprecht Keller, and Anthony W. Butch. "The Urine Marker Test: An Alternative Approach to Supervised Urine Collection for Doping Control." Sports Med Sports Medicine (2015). Print.

Supervised urine collections have become the gold standard in the drug-testing industry due to increased revenue and competition in sport and technological advancements in the manipulation of urine samples. However, supervised collections continue to spark controversy.

Common arguments against supervised urine collections include infringement on athlete privacy and obstacles created by conditions such as paruresis (also known as shy bladder). While blood collections are becoming increasingly common, critics insist they are even more invasive and harmful than a supervised urine collection. In a recent study published by the Partnership of Clean Competition (PCC), a new option referred to as "urine markers" is introduced as an alternative to supervised urine and blood collections.

Urine markers are capsules containing monodisperse low molecular weight polyethylene glycols (PEGs) that are consumed orally by an athlete thirty minutes prior to a urine collection. Each capsule contains a specific concoction of up to nine different types of PEGs that can be easily identified through laboratory analysis.

The ease and accuracy of analysis allows for two major advancements that benefit the drug-testing community. First, the specific composition of PEGs ensures that the urine sample was provided by the athlete being tested. Second, the athlete can provide a sample unsupervised—increasing privacy and eliminating unnecessary stress. Most importantly, the urine marker does not interfere with the laboratory's ability to identify prohibited substances. The PEGs have also been approved by both the European Medicines Agency and the U.S. Food and Drug Administration for use as urine markers in testing.

Based on the results of three separate studies, the use of urine markers in drug-testing has received positive response from international and regional level athletes in Europe and the United States. Although more research and testing needs to be done, urine markers as an alternative is gaining traction in the drug-testing industry. A timetable has not been set for the implementation of this technology in the field, but the positive response from athletes and testing agencies thus far may forecast urine markers as a viable option.

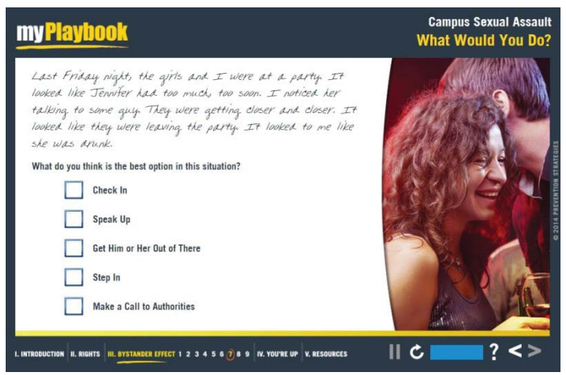
myPlaybook Offers Evidence-Based Prevention Programming, NCAA Sport Science Institute Offers FREE Licenses to Divisions I and II

Dr. David Wyrick, Director of the Institute to Promote Athlete Health & Wellness, University of North Carolina - Greensboro

Collegiate student-athlete health and well-being is currently a subject of intense focus for many: popular media, coaches, athletics administrators, athletic governing bodies, academic researchers, student-athletes, parents, and friends. The list of potential topics to cover is overwhelming. myPlaybook is a collection of online education modules aimed specifically at promoting the health and well-being of NCAA student-athletes and should be a component of every college athletics comprehensive prevention programming.

The evidence-base is strong as myPlaybook targets important research-based strategies to prevent and reduce alcohol and other drug use and related consequences, reduce sexual assault, and promote life skills. The myPlaybook team has partnered closely with the Sport Science Institute at the NCAA to make sure that the content of myPlaybook is relevant to the student-athlete experience and compliments other important NCAA programs and policies. This year, the Sport Science Institute is providing free myPlaybook licenses to freshman and sophomore student-athletes in Divisions I and II. Licenses are available on a first-come, first-served basis for athletic programs looking to implement the online tutorial program this academic year.

For more information, or to register your athletes for FREE myPlaybook licenses, please contact Samantha Kelly, Scientific Coordinator at the Institute to Promote Athlete Health and Wellness at sebibeau@uncg.edu.



Examples of activities in myPlaybook coursework that target athlete perceptions, social norms, and positive awareness for alcohol use and sexual assault on campus.
Image 1 (left): Norms - *What is a drink?* **Image 2 (right):** Campus Sexual Assault - *What Would You Do?*

Save-the-Date!

Don't miss Drug Free Sport's first Biennial Education Conference in Kansas City.

"This conference is one-of-a-kind and purposed to strategically bring together all disciplines from the 'team behind the team' to share, learn, and discuss important issues in sport and athlete well-being," says Lara Gray, Director of Education. Drug Free Sport aims to bring together all professions in sport to collectively champion athlete well-being, foster collaboration and learning among all industry personnel, and ultimately ensure fair and safe sport.

Fresh Faces at Drug Free Sport!

Anna Filardo, Education Program Manager:
Anna is Drug Free Sport's newest staff member with a background in Wellness and Fitness from the University of California, Pennsylvania and previous work as a Student Athletic Trainer at the University of Missouri. She is a Kansas City native, and enjoys playing golf and spending time with family while exploring new restaurants.

Jeremy Luelf, Information Technology Analyst:
Jeremy brings a solid foundation of IT knowledge to Drug Free Sport. While away from technology, Jeremy enjoys playing footgolf (yes, it is a real sport). Footgolf follows the general play of golf, except there is a soccer ball instead of a golf ball, the ball is kicked rather than struck with a club, and players work towards a 21-inch "cup" in place of the usual golf hole. Jeremy is originally from Washington, Missouri.

Michael McCabe, Sport Drug Testing Program Manager:
Michael comes to Drug Free Sport from the University of Kansas where he received his Bachelors of General Studies in Economics. Michael prides himself in being a Lawrence native and enjoys watching KU basketball, especially since he is related to the inventor of basketball, James Naismith.

Diana Reynolds, Sport Drug Testing Program Manager:
Diana is originally from Blauvelt, New York and joined the Drug Free Sport team after working with the NAIA. She holds a Masters of Science in Sports Administration from Canisius College in Buffalo, New York. Diana and her husband had their first child, Maya, at the beginning of November. In her spare time, Diana enjoys crocheting blankets.

Christina Tulloch, Staff Accountant:
Christina brings 18 years of accounting experience to Drug Free Sport. She is a Kansas City native and received her Bachelors of Science from the University of Missouri, Kansas City. In her spare time, Christina enjoys helping others, and is taking classes to become a certified grief counselor to volunteer at a church.

Sarah Ziegelmann, Phlebotomy Services Program Manager:
Sarah joins Drug Free Sport after working in corporate partnership for the Tostitos Fiesta Bowl and the Kansas City Chiefs. She was born and raised in Fargo, North Dakota, and was the captain of the University of Nebraska's women's swim team.

DRUG FREE SPORT™ MISSION

Ensuring Fair and Safe Sport

The National Center for Drug Free Sport is a team of accessible, world-class experts in partnership with leading sport organizations around the world providing unbiased and customized drug-testing programs and other drug prevention initiatives to ensure fair and safe sport.

DRUG FREE SPORT™ VISION

To be the premier provider of customized drug testing and prevention programs for athletes and sport organization worldwide through innovation, technology, quality, and exceptional staff.

ON THE ROAD AGAIN

Will we be in your area?

Contact us to schedule an educational session!

46th NFHS National Athletic Directors Show
Orlando, FL
December 13-14

CSMAS Winter Meeting
Indianapolis, IN
December 13-15

NSCA Coaches Conference
San Antonio, TX
January 7-9

APPLE Conference
Charlottesville, VA
January 15-17

APPLE Conference
Grapevine, TX
January 22-24

Save-the-Date!
Sport Exchange Summit 2016
Kansas City, MO
July 12-13, 2016

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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insight

Drug Free Sport™

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Happy Holidays from Drug Free Sport!

Drugs vs. Supplements: What's the Difference?

Peter J. Ambrose, Pharm. D., REC Expert and Consultant
Lara Gray, MS, RDN, CSSD, Director of Education

The Resource Exchange Center (REC) answers questions about medications and supplements, and advises as to whether or not they are banned (prohibited). Due to different regulations and restrictions on contents and labeling by the Food and Drug Administration (FDA), pharmaceutical and over-the-counter medications can be immediately assessed by the REC team. Alternatively, dietary supplements lack FDA oversight and regulation on consumer safety, efficacy, and truth in labeling. It is important to understand the differences between medications and supplements in order to effectively educate athletes and maintain their eligibility.

Pharmaceutical Medications

To obtain approval for marketing to consumers, the FDA requires manufacturers to scientifically demonstrate that a drug is safe and effective, often through a series of clinical trials which take place over a number of years. Strict manufacturing processes must be followed and monitored closely. According to the FDA, a drug is a substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in humans or other animals. Labeling and claims made by the manufacturer are strictly regulated and must be approved by the FDA before being used in consumer marketing efforts. The FDA also requires post-marketing surveillance of pharmaceuticals so that they can protect consumers by monitoring for adverse drug effects.

Dietary Supplements

Dietary supplements pose more of a challenge and require caution. The FDA defines a dietary supplement as a substance (other than tobacco) that is ingested and intended to supplement the diet, and consists of vitamins, minerals, herbs or other botanicals, amino acids; or a concentrate, metabolite, constituent, extract, or any combination of those. Contrary to medications, producers of dietary supplements do not need approval from the FDA that their product is safe and effective prior to marketing and selling their products to consumers.

Current dietary supplement regulations dictate that it is up to manufacturers to determine that their product is safe, with little oversight. The FDA requires that the product is labeled as a dietary supplement, and that claims made about the product are not false and misleading. Dietary supplements cannot be advertised or labeled to specifically diagnose, treat, cure or prevent disease, or to mitigate the symptoms of a specific disease. All product marketing and labels are required by the FDA to use and post the disclaimer, "These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease."

Unfortunately, manufacturers continue to make bold claims with little or no data or scientific evidence to support their claims, and the FDA disclaimer is often hidden from view in extremely small font. Many of the claims confuse and influence consumers by implying that the product is useful for a specific medical problem (such as pain relief for arthritis and help for erectile dysfunction). Marketing of dietary supplements is often crafty, where just the name of the product can infer treatment of a specific condition.

Reason for Concern

Dietary supplements are regulated by the FDA under different circumstances and exceptions compared to pharmaceutical drugs. Due to the lack of FDA oversight and control, dietary supplements may contain hidden ingredients that are not disclosed on the product label. This is an issue for consumer health and safety, as well as athlete eligibility to compete when undisclosed ingredients fall into a banned drug class.

Studies have found some supplements contaminated with pharmaceutical drugs as well as other banned substances due to poor manufacturing practices. Dietary supplement products can also be reformulated, and the ingredients changed without notice. For these reasons, advisement on dietary supplements must not only educate on the presence of banned substances listed on a product label, but also the general risk to athletes in the event that banned ingredients are present due to contamination or intentional adulteration.

Conclusion

Pharmaceutical drugs undergo stringent FDA regulations and requirements to ensure consumer safety, efficacy, and consistency of ingredients and dosage before being sold on the market. Dietary supplement manufacturers are not subject to the same regulations. With the exception of minor limitations on product label claims, dietary supplement products may be marketed, distributed, and sold to consumers without safeguards for consumer health, product effectiveness, and truth in labeling.

Due to these differences, there can be more immediate confidence in determining whether or not a pharmaceutical drug is either "banned" or "not banned" in sport. Unfortunately, there is significantly less confidence, and more risk, in evaluating dietary supplements for banned substances. To ensure athlete health, safety, and eligibility in competition, the REC utilizes a Risk Level Rating System to help athletes and athletic support staff members make informed decisions on the relevant risk associated with certain supplements.

Every day, the REC team checks dietary supplement labels for reformulation and changes to listed ingredients, researches individual ingredients, and reviews FDA and consumer product recall lists before assigning a risk level. This process can be time consuming which is why it can take 24 to 48 hours to evaluate and supply a response with evidentiary confidence. Without direct third-party testing of a product, there can be no guarantees related to whether or not a supplement contains banned ingredients.

To check for an immediate banned/not banned status for pharmaceutical drugs in the REC medications database, or to check dietary supplements with the Resource Exchange Center and receive a Risk Level Rating, please visit www.dfsrec.com.