

# Dialogue

---

IN THE FIRST INSTALLMENT OF THIS NEW FEATURE, PROFESSORS Dean Kriellaars and Mike Namaka discuss performance-enhancing substances. **Dean Kriellaars** (BIDE/80, PhD/92), Medical Rehabilitation, is also Director of the Human Performance Laboratory at the University of Manitoba and Co-Founder of the Centre for Substance Use in Sport and Health (SUSH). SUSH is a federally funded, not-for-profit centre that works to educate individuals about the effects of substances. Through partnerships with local, national, and international organizations, SUSH delivers information to athletes, coaches, parents, educators, pharmacologists, doctors, researchers, and industry and government representatives. **Mike Namaka** (BScPhar/91, MSc/97, PhD/00), Pharmacy, is a Clinical Pharmacy Practitioner specialized in Multiple Sclerosis. In collaboration with the Department of Neurology at the Faculty of Medicine, he is a member of a research team using a "holistic" approach to patient care and focused on novel clinical drug trials in patients not responding to traditional therapy.

## WHAT IS A PERFORMANCE-ENHANCING SUBSTANCE?

**MN:** Anything that affects performance. It can be a drug, but not necessarily so.

**DK:** It can also be a practice, such as blood doping. It can also be an over-the-counter medication like ibuprofen that is not banned in sport but can rid an athlete of pain that could inhibit performance.

## WHY ARE SOME SUBSTANCES BANNED?

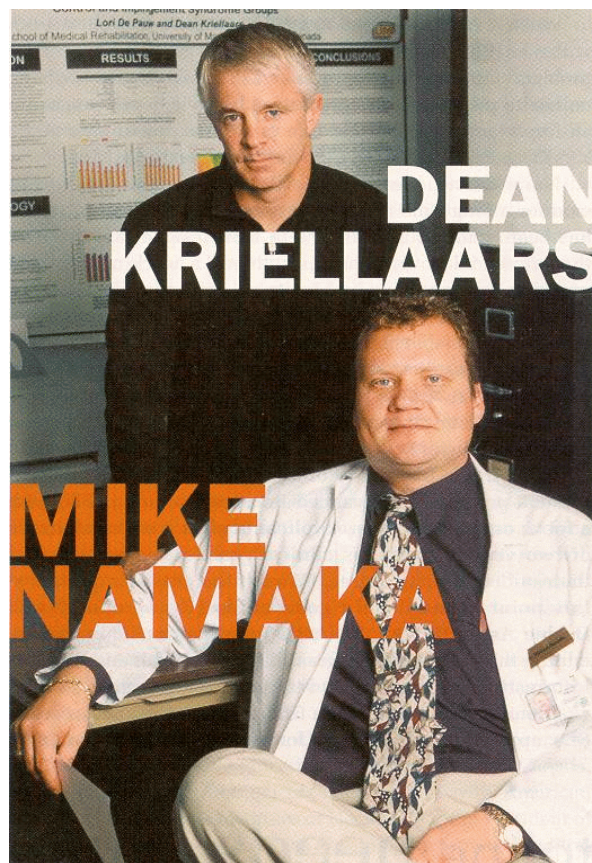
**MN:** Because of their direct and indirect impacts. With overuse or with abuse, banned substances usually demonstrate a higher prevalence of causing long-term negative consequences.

**DK:** It also gets tricky because some substances, such as caffeine, the most widely-used drug in the world, is allowed in some forms, like coffee, but banned when taken in higher doses.

## WHO DETERMINES WHAT SUBSTANCES ARE BANNED AND ALLOWABLE LEVELS FOR SPORT?

**DK:** The Canadian Centre for Ethics in Sport (CCES) administers the banned substance and practice testing for amateur sport in Canada and follows the International Olympic Committee. They look for levels of substances like steroids that exceed that of natural production in the body, as well as looking for substances that are normally found in the body.

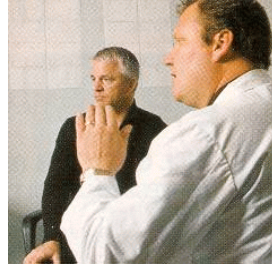
**MN:** Because the consequences of a positive test are so severe and wide-ranging, the levels also tend to be set low. Also, remember that it's difficult to set allowable limits because it would be unethical to run tests with these drugs on human subjects.



## IF THESE ISSUES ARE CONFINED TO SPORT, WHY SHOULD OTHERS BE CONCERNED?

**MN:** The issue is more than just sport. It's also about what's safe for the athlete, whether professional, amateur, or the seniors league at the local rink. The issue becomes a concern when you hear about participants using decongestants before the game for an edge. They are good at clearing heads but what happens over time when they're used for other purposes?

**DK:** Another thing you don't often hear about is taking these drugs to change body composition. With SUSH, I speak to a lot of students. There are a lot of females who are taking decongestants to lose weight and males who are taking powders to increase muscle mass. To them, it's about body image and attraction-messages that are reinforced in the media.



## WHAT CAN I DO AS A PARENT?

**MN:** If I was a parent of an athlete using these substances, I would be concerned because these products are not as innocent as they appear. For example, products found mixed in some muscle-building powders are known to increase blood pressure and odds of a heart attack and stroke. Pharmacists by law are not allowed to sell these items together but many herbal or health products don't list exact compositions of some products. It's important to be informed and check the label for composition and for a drug identification number (DIN). This way you know what it is you're taking. Remember that all-natural does not necessarily mean safe.

**DK:** I agree with Mike. It's important to find out as much information as you can before you start using a substance for performance enhancement or changing body composition. It's important to inform children and I would advocate programs starting at grade 5 or 6. The CCES tests athletes as young as 12 years old at the Canada Games.

## WHERE CAN PARENTS AND ATHLETES GO FOR MORE INFORMATION?

**MN:** They can check web sites, such as Dean's SUSH site, [www.substanceuse.com](http://www.substanceuse.com).

**DK:** At SUSH, we advocate informed decision-making using a seven-point model. We encourage the athlete or student to ask about the following. What is fair play or ethical behaviour for your sport, keeping in mind the differences between sports and associations and what substances are banned? Is it legal to own, use or purchase this substance? Will this substance really improve your performance? Will taking this substance really improve your health and what are the short and long-term risks involved? From a medical viewpoint, what is the intended use of the substance and the side effects? Are you compromising the safety of others when taking the substance? Does spending money on this substance make the best financial sense and have other proven performance-enhancing methods been considered?

**MN:** Listening to Dean's seven points, it becomes apparent that the issues around performance-enhancing substances are many and various professionals, including lawyers, coaches, and administrators would have to be consulted to get a fuller picture. As an athlete, parent, coach or recreation participant, don't be afraid to ask questions and keep informed.