



From the MAFP Presidents Pen -

Performance Enhancing Drugs: From the Racetrack to the Olympics

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August 2016

Someone who pays attention to the newsfeeds this summer might have noticed that there have been several issues with the class of medications called 'Performance Enhancing Drugs' (PEDs). First there was the scandal involving cobalt being administered to race horses here in Maine. Then there was the Maria Sharipova story -- tennis star banned from participating in international competitions for having the banned substance Meldonium (a prescription drug in most eastern European countries used for angina and stroke patients) in her system. And now much of the Russian Olympic team has been banned for being involved in an 'endemic culture of deceit' regarding the tests that were allegedly falsified by the state officials. But before we get too far down the track, let's just stop and examine what this means.

PED's in humans have a long history. Even pre-literate cultures in the Brazilian rainforest figured out that chewing coca leaves gave them a bunch of strength and energy that they could devote to the hunt. And what about caffeine that has been proven to increase the typing speed of clerical workers? Well, I think the main difference in the 'socially acceptable' forms above from the illicit, is the implication that the 'unfair competitor' is attempting to gain some reward or benefit at the expense of other competitors who are not aware of their opponent's usage. A secondary reason to discriminate between 'reasonable' and 'abusive' use is the likelihood that the usage would be dangerous to the user to justify the illicit category.

Now laying aside the interesting ethical questions posed by PED usage (would it be justified by the greater good -- i.e. having your troops succeed in wartime situation?). Let's just look at the science of PED's in humans. The most commonly abused categories are generally understood to be:

- 1) Steroids – includes testosterone or other substances that could boost testosterone. This class is used to build muscle mass for sports needing strength.
- 2) Stimulants – the group of the amphetamine class that includes over-the-counter cough and congestion preparations and the meds for ADHD. These stimulants can improve reaction times, provide a burst of energy, and sustain alertness.
- 3) Peptide hormones and analogues – Meldonium falls here, as well as insulin and erythropoietin (EPO), intended to increase oxygen-carrying capacity of the blood for sports needing endurance.

There are other categories: diuretics that can mask drug use, 'street'-drugs such as cocaine or cannabis, and the technique known as blood-doping where athletes receive transfusions. I invite anyone interested to avail themselves of the excellent information on the IOC or NCAA sites. But there are several scientific facts that the well-informed layman should at least be aware of, even if he/she



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does not believe them.

First, this deceitful and sometimes illegal usage is completely different from the medical benefit that comes to many patients afflicted with true diseases needing these substances. For example, Type I diabetics will die without insulin, and many patients with legitimate hormone issues need a prescription for 'low-dose' steroids as opposed to 'Barry-Bonds' dosage. Second, the use of these medications under the supervision of your family doctor is much safer, and in fact will be better for your long term health than going without! Even the international groups recognize that a legitimate use of lung inhalers for people with asthma can be excused with a bona-fide doctor's note.

But the problem arises when folks are not honest: from the high-school track athlete who asks their parents to help them get a prescription for an ADHD med like Adderall, to the eastern European physician suggesting in the medical record that his patient may have a depressive condition that could respond to a drug like Meldonium, to the lab tech that knows it is his job to change the numbers on certain lab tests. Essentially the real problem is 'DISHONESTY'. The simplest way to avoid getting caught up in any webs ("Ah, what a tangled web we weave when we first practice to deceive") is to work at always being a straight-shooter. Now this does not mean you tell Aunt Nellie, 'Yes, that dress does make you look fat'. No, what it means is not being willing to be deceitful in your dealings with your fellow man (or woman). This practice will actually keep you in the game the next time you qualify for the Olympic team. It will also keep you healthier, happier, and saner for the years that you just missed the first cut!