Lowering Restrictions on Performance Enhancing Drugs in Elite Sports

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Published in *Inquiries Journal, 9*(3), 2017*

Abstract: *This article argues that performance enhancing drugs (PEDs) ought to be allowed across all elite sporting competitions for athletes over the age of 16 so long as consuming them does not pose a significant risk to their health. I begin with a brief explanation of the current state of PED use in professional sports before assessing the prospect of allowing PEDs by three widely accepted (though far from comprehensive) measures of ethical merit: well-being, autonomy, and justice. I end with a critique of the World Anti-Doping Agency's criteria for banning PEDs, concluding that allowing athletes to use PEDs is a superior alternative to the current prohibitive approach.*

The 2016 Rio Olympic Games generated much discussion about the use of PEDs within elite sports. Over 100 Russian athletes were banned from competing in Rio after it was discovered that the Russian government had endorsed their representatives' consumption of prohibited performance enhancing substances (Macguire & Almasy, 2016). Additionally, there was public condemnation of Caster Semenya claiming gold in the women's 800m sprint after it was found that her body naturally produces an unusually high level of testosterone, which is thought to have unfairly contributed to her sporting success (Blumenthal, 2016). Testosterone supplements are widely available, and their use by other competitors could potentially have alleviated the genetic advantage that Semenya enjoyed, if they were not

* Cite as: Collins, R. W. (2017). Lowering restrictions on performance enhancing drugs in elite sports. *Inquiries Journal, 9*(3). Available at http://www.inquiriesjournal.com/a?id=1590

currently banned from the Olympics. These two cases raise a difficult question: under what circumstances should we allow the use of PEDs in elite sports?

PEDs are already permitted within elite sporting competitions to some extent. 1,3,7-Trimethylpurine-2,6-dione, a drug well-known to improve mental focus and stimulate the central nervous system was banned outright in the Olympics until 2004 when it was legalised for athletes to consume in moderate doses (WADA, 2003). Today, it is regularly consumed by both elite athletes and non-sportspeople alike. 1,3,7-Trimethylpurine-2,6-dione is more commonly known as caffeine. In addition to legal substances, many athletes also use prohibited PEDs to gain an edge over competitors, a process colloquially referred to as 'doping'.

The World Anti-Doping Agency (WADA) was established in 1999 in an attempt to eliminate this as much as possible by creating a comprehensive list of illicit substances and regularly testing athletes for drug use (WADA, 2017). They add a substance to their banned list if it improves performance, poses a risk to health, or violates the 'spirit of sport' (WADA, 2015, 4.3.1). Testing for banned PEDs is no easy task, however, and despite WADA's efforts, doping continues to plague many elite sporting competitions, including the Olympics (Savulescu & Foddy, 2011, p. 305; Savulescu, Foddy, & Clayton, 2004). Many honest athletes are unfairly beaten by cheaters who have managed to evade being caught (Loland, 2011, p. 327). Accordingly, we must consider if a more permissive approach to PED use might be preferable to the current situation.

Perhaps the most common argument against allowing PED use is that it would pose a risk to athletes' health and well-being (Loland, 2011, p. 327). This is demonstrably true for many PEDs. Artificial replications of the naturally occurring hormone erythropoietin (EPO) can be taken to increase an athlete's red-blood-cell count (RBCC), which may improve performance in endurance events such as cycling or running (National Strength and Conditioning Association, 2017). However, an RBCC above 50% significantly increases a person's chance of a heart attack (Savulescu & Foddy, 2011, p. 306). Thus, it seems reasonable *prima facie* to prohibit the use of these drugs on the grounds that they are dangerous. However, many PEDs which are

currently banned for consumption at any dose such as EPO or anabolic steroids[1] are relatively safe if consumed in low-to-moderate levels (National Strength and Conditioning Association, 2017).

EPO only necessitates a health risk if it is used to increase RBCC above 50%; a range of 40-50% is sufficient to boost performance without incurring a heightened risk of heart attack (Savulescu & Foddy, 2011, p. 306). Additionally, the same danger may result from using PEDs or accepted training methods (Loland, 2011, p. 327). Training at high altitude or using a hypoxic air machine can both increase RBCC to unsafe levels (Savulescu & Foddy, 2011, p. 306; Savulescu, Foddy, & Clayton, 2004). A better approach for reducing harm to athletes may be to directly test for their RBCC and prohibit those with dangerous levels instead of spending time and resources trying to discern the method they used to achieve this (Savulescu & Foddy, 2011, p. 307; Savulescu, Foddy, & Clayton, 2004).

Moreover, many Olympic sports themselves entail a health danger, for instance, boxing or martial arts (Loland, 2011, p. 327; Pan et al., 2016; Savulescu & Foddy, 2011, p. 310). Even soccer, a sport often considered relatively safe, may adversely affect players' brain structure due to striking the ball with their heads (Raj, 2013). These risks are well-known, and athletes implicitly accept them by choosing to compete. One might argue that to stay consistent, we must also permit athletes to use PEDs if they so choose, even if such drugs are dangerous. But this view seems implausible since health risks are inherent to sports such as boxing; allowing PED use would create a new, unnecessary risk to 'safe' sports such as rhythmic gymnastics or rowing.[2]

If we aim to protect athletes' health, this obliges us to reduce risks of harm wherever reasonably possible but does not require us to ban everything which incurs some degree of risk. Accordingly, we are justified in prohibiting PEDs which are demonstrably unsafe (or must be used in unsafe doses to achieve the desired effect) but are unjustified in banning those which do not incur a significant risk to health.

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[1] The current doping guidelines do, however, permit athletes to use anabolic steroids during training if they have been prescribed by a medical practitioner to assist in injury recovery (WADA, 2015, 4.4.1).

[2] Virtually all sports involve some degree of risk – a rhythmic gymnast may roll her ankle or a rower may be inadvertently hit by an oar – but compared to boxing this risk is almost non-existent.

Some PEDs do not presently have sufficient research on their long-term clinical outcomes, so we ought to ban these as a precautionary measure. The burden of proof lies with those establishing that a drug is safe, not that it is dangerous, so we are right to err on the side of caution where there is insufficient evidence.

Regarding autonomy, one might argue that if we allow PEDs, athletes will be pressured into using them if they want to stand a chance at victory, which would be detrimental to their autonomy. This is especially true for young athletes who may be more susceptible to pressure from their family or coaches. It is, therefore, reasonable to restrict the use of PEDs to those over the age of 16 since those under this age are not in a position to give appropriate informed consent. 16 is an arbitrary number – 14 or 18 may be more suitable depending on the circumstances – but given the consensus that 16 is an appropriate age for giving consent in other aspects of life, it is sufficient as a first approximation.

For adult athletes, however, they choose to compete, and this choice will inevitably entail a range of pressures if they want to succeed at the top level. Many elite athletes may feel pressured to eat a low-fat diet, to get up at 4 am to practice, to take vitamin supplements, or to train at high altitude. But the idea of banning all athletes from using these training strategies on the grounds that some may feel pressured to use them is absurd. Thus, to prohibit athletes from using PEDs since allowing them would be detrimental to other athletes' autonomy would be equally unreasonable. After all, using PEDs would be no more obligatory than current training expectations (Lavin, 2001, p. 171).

Some athletes are at a significant advantage over their competitors due to something they cannot choose: their genetic composition (Booth et al., 1999; Murray, 2004; Rawls, 1999, p. 10). This might be thought an unfair benefit since Olympic events are often won by minuscule margins (Murray 2004). Allowing PED use could, potentially, reduce the extent to which some competitors are genetically privileged (Savulescu & Foddy, 2011; Savulescu, Foddy, & Clayton, 2004). As mentioned earlier, Semenya's competitors could potentially reduce their genetic disadvantage if they were able to take testosterone supplements. There is disagreement over whether high testosterone actually benefits female athletes, but even if it does not, there is still no convincing reason not to ban its use in doses that do not endanger athletes' health. One might

object that PEDs are unlikely to ever eliminate the effects of genetics for numerous sporting benefits such as a basketball player's height or a swimmer's foot size. But objecting on these grounds would be unconvincing since some reduction to genetic advantages would still be better than none at all.

At present, athletes who take PEDs and get away with it have a considerable unfair advantage. Given that the current prohibitive approach to PEDs has failed to eliminate their use, letting all athletes use PEDs may rectify this injustice (Loland, 2011, p. 326). However, this raises further issues of justice since athletes from poorer nations may not be able to afford or access the PEDs required to stay competitive at elite levels. When only some athletes use PEDs, this tilts the playing field in their favour (Loland, 2011, p. 326; Murray, 2004; Savulescu, Foddy, & Clayton, 2004). Legalising PEDs would likely exacerbate the already significant disparity between wealthy and developing nations at the Olympics. To avoid this dilemma, PEDs would need to be somehow available to athletes from all economic backgrounds (Savulescu & Foddy, 2011, p. 310). The International Olympic Committee could, perhaps, redistribute a portion of the revenue generated by no longer having to perform as many expensive drug tests to athletes from poorer nations so they could afford some of the training advantages available to richer athletes, but this idea requires further discussion.

WADA (2015) has three criteria for banning a drug. Generally, a drug will only reach their prohibited list if it meets at least two of these criteria; however, this is at WADA's discretion (4.3.1) The first is that the substance "enhances sports performance" (4.3.1.1). This is an unreasonable justification for banning a drug since countless substances enhance performance, from vitamin supplements to protein shakes to caffeine. The second is that the substance "represents an actual or potential health risk to the athlete" (4.3.2.2). This seems plausible at first glance, but WADA's rule is too broad to be of any practical benefit since virtually all legal and low-risk substances may damage a person's health if consumed in large quantities.

As Paracelsus famously stated, "the dose makes the poison" (1538, as cited in Dumit & Dengiel, 2014). A caffeine overdose, for instance, can cause breathing difficulties, irregular heartbeat, and sometimes even hallucinations (Heller, 2015). Additionally, PEDs and accepted training methods can often generate the same health risk.

Training at high altitude or taking EPO can both raise RBCC to dangerous levels, but only the latter is banned on health grounds. A cheaper and more efficient harm-reduction approach would be to test athletes for total RBCC, testosterone levels, and cholesterol, among other things, then disallow them to compete if doing so would endanger their health (Savulescu & Foddy, 2011, p. 310). The method used to achieve a change in the body's chemistry is irrelevant to the health risk it presents.

WADA's final criterion for banning a substance is if it "violates the spirit of sport" (4.3.1.3). However, this rule could be interpreted in numerous ways. As Peter Singer (2016) observes, people play sport for a variety of reasons other than mere competition, including to socialise, stay fit, acquire money, prevent boredom, or simply for its own sake (p. 323). On one view, the spirit of *competitive* sport, at least, may lie in the pursuit of physical excellence amidst fair competition, in which case allowing PEDs may even enhance this since athletes who are naturally disadvantaged due to their genotype may have the opportunity to compete at the top level (Savulescu & Foddy, 2011, p. 309). Many people disagree, however. Thomas Murray (2004) argues that an essential part of sport is celebrating those who were born genetically advantaged and then had the determination to shape themselves into Olympic-level athletes. He writes, "Natural talents should be respected for what they are: the occasionally awesome luck of the biological draw". Others might add that the positive influence athletes currently exert as role-models for children and adolescents could deteriorate if they used PEDs in a way that diminished their good character.

This view is somewhat plausible, and hence, it merits further discussion on what the spirit of competitive sport should refer to. If there is an overwhelming consensus for a position similar to Murray's, my proposal should not go forth – at least, not without significant concessions. However, one could equally argue that we as sports fans do not specifically admire an athlete's innate genetic abilities, but rather tend to appreciate the final result: exceptional athletic performance from an inseparable combination of genetics, nutrition, coaching, and training. Also, children would not necessarily miss out on positive role models since the admirable qualities many sportspeople currently exhibit would not suddenly cease to exist if they used PEDs in addition to their hard work and determination to succeed. Because of this, WADA's current justification for prohibiting a substance if it is against the spirit of sport needs further clarification before it can be used to support a ban.

This article has argued that many of the PEDs which are currently banned ought to be allowed in the Olympics for athletes over 16 years of age. There is substantial justification for a less prohibitive approach to PEDs on the grounds of well-being, autonomy, and fairness; many of the objections to this proposal are simply unconvincing. In saying that, however, there are reasons to be hesitant about going straight from the current approach to a *laissez-faire* system.

Numerous drugs thought to be safe do not have studies on their long-term health consequences. Additionally, many elite athletes are relatively young and, therefore, may not be able to give free and informed consent. Furthermore, legalising PEDs may provide a benefit to athletes from wealthy countries that is unavailable to those from poorer nations. But allowing some PEDs would almost certainly not incur these negative effects. To name one example, EPO is cheap, widely available, and reliable evidence suggests that there are no long-term health risks if used in moderation. Prohibiting athletes from using EPO under the current criteria is simply unjustified, as is the case for many other safe PEDs. Over the coming years, we ought to strive for a less restrictive approach towards PED use in both the Olympics and other elite sporting events.[3]

[3] I owe many thanks to Fiona Dalzell, Carolyn Mason, and Richard Tweedie for their excellent philosophical teaching on this and other topics.

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