

VADA's role in protecting combat sport athletes

Ryan Connolly, a Californian Attorney and Chief Counsel to the Voluntary Anti-Doping Association, explains how it protects athletes against the different risks that doping in combat sports presents.

The story of athletes seeking artificial means to increase their strength, speed, endurance and recovery time has been told. Many different sports have been forced to confront the scourge of performance-enhancing drug (PED) use among their athletes. The desire to win - and the fame and wealth that comes with being the best - has proven to be enough incentive for athletes to circumvent the agreed-upon rules at a substantial risk to their reputation, career and health.

Combat sports are not immune from these pressures. Indeed, boxing and mixed martial arts (MMA) have experienced their share of doping scandals. But combat sports are inherently different than most athletic competitions. Combat sport athletes have the objective of inflicting physical punishment upon their opponents. The bodily destruction of one's opponent is not just a potential by-product of the sport; it is the ultimate goal.

Given the likelihood that a chemically-enhanced fighter could inflict serious damage upon his or her opponent, one might conclude that the safeguards in professional combat sports would be among the best in the world. The Olympic Movement has made great strides over the past couple decades in giving anti-doping authorities many of the analytical tools necessary to confront PED use.

But to the detriment of the fighter health, there has been a lack of leadership on the PED issue in combat sports. PED testing programs have been either



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ineffective or non-existent. People who frequent boxing and MMA gyms quietly whisper that current PED use is widespread among competing athletes. Fighters who want to compete clean are faced with the predicament of potentially stepping into the ring or octagon versus an opponent who is both chemically-enhanced and aiming to inflict physical damage.

Until recently, these fighters have been powerless to respond. Now they have an ally. The Voluntary Anti-Doping Association (VADA) was founded in order to empower athletes to actively participate in cleaning up the sport in which they compete. Employing the most sophisticated and state-of-the-art doping detection methodology, VADA enables athletes to voluntarily enrol in its rigorous testing program and prove to the world that their athletic ability is all natural. VADA puts participating athletes in a position to confidently declare to their opponents and peers, "I've got nothing to hide; why aren't you participating too?"

The VADA program was established in 2011 by neurologist Margaret Goodman, M.D., former head of the Nevada State Athletic Commission's Medical Advisory Board and well-respected ringside physician. VADA is a non-profit organisation that is fully independent of promoters, athletic commissions, managers, trainers and sanctioning bodies. This independence from the traditional boxing and MMA authorities is VADA's most important attribute. It allows VADA to operate in the best interests of the health of the athletes, even if the end result is not always popular among the sport's power brokers.

For example, in May 2012, boxer Lamont Peterson became the first athlete to test positive for a banned substance under the VADA

programme. As a result, his highly-anticipated bout scheduled to take place at the Mandalay Bay Resort in Las Vegas was cancelled. The promoters of the fight lost their investment. The television network and hotel lost revenue. The fans lost their ability to watch the sport that they love. Mr. Peterson's opponent lost his share of the fight purse. Mr. Peterson lost his reputation. Everybody lost. At least in the short term.

The Peterson episode has brought transparency to the PED issue where there previously was none. It has required athletes, trainers, managers, promoters and commissioners to acknowledge the problem and educate themselves regarding PEDs. It has also opened the door for athletes to take the anti-doping torch and run with it.

The real story behind the Peterson incident was how he was caught. Mr. Peterson was flagged for the presence of synthetic testosterone in his urine sample. He later admitted to participating in a medical procedure whereby slow-release synthetic testosterone pellets were implanted under his skin. Testosterone - in simple terms - is the building block of all anabolic steroids. Since testosterone is produced endogenously (naturally) by humans, the detection of exogenous testosterone (coming from an outside source) is a difficult task.

But a handful of brilliant anti-doping scientists - some of whom later acted as technical consultants to VADA - devised an analytical method using Isotope Ratio Mass Spectrometry known as Carbon Isotope Ratio (CIR) that solves this problem. Instead of simply looking for metabolites of an anabolic agent in urine, the CIR test looks at the atomic makeup of the carbon atom in order to determine whether the testosterone is natural

or exogenous. The CIR test has routinely withstood challenges in the Court of Arbitration for Sport (CAS), which acts as the ultimate arbiter of doping cases brought under World Anti-Doping Agency (WADA) protocols.

While Mr. Peterson is not the first athlete to report a positive CIR test, VADA is the first anti-doping program to screen every urine sample using the CIR method. Standard protocol under the World Anti-Doping Code is to measure the sample's testosterone-to-epitestosterone (T/E) ratio. A normal T/E ratio is approximately 1:1. In Olympic sports, if an athlete's sample has a 4:1 ratio or above, the specimen is then tested using CIR as a confirmation tool. However, if an athlete's specimen stays under the 4:1 ratio, the sample is not subjected to CIR testing and is declared negative. Mr. Peterson's T/E ratio was 3.77:1. In other words, Mr. Peterson's synthetic testosterone administration would have escaped detection under just about any other protocol in the world.

Now that VADA has proven that using CIR as a screening tool is an effective weapon to combat exogenous testosterone use, it seems inevitable that the Olympic Movement will eventually adopt the CIR method. The only question is how many athletes will get away with testosterone micro-dosing (keeping their T/E ratio below 4:1) before the more rigorous testing regime is adopted?

Many people close to boxing and MMA believe testosterone abuse is the biggest PED problem in combat sports today. Indeed, this is what led to VADA's pioneering use of the CIR test as a routine screening tool. But there are other forces that can undermine efforts to curtail testosterone abuse in combat sports.

The Nevada State Athletic

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Commission (NSAC) has recently granted a number of Therapeutic Use Exemptions (TUEs) to boxers and MMA athletes who claim to suffer from hypogonadism (low testosterone levels). The idea is that these athletes have a medical need for synthetic testosterone administration to supplement their body's abnormally-low natural testosterone production. But the percentage of combat sport athletes in their twenties and thirties who claim to suffer from hypogonadism seems to be well above the proportion of non-athletes of the same age with the affliction. This may seem odd since these athletes are physical specimens - how can they be so muscular and fit but have natural testosterone production deficiencies at a higher rate?

The dirty little secret is the likely cause of the hypogonadism in the first place - past anabolic steroid abuse. When someone administers an anabolic steroid for a long enough period of time, their body naturally compensates by producing less testosterone. Sustained steroid abuse causes permanent changes to the body's natural capacity to produce testosterone. So when a state commission such as NSAC authorises an athlete to use synthetic testosterone therapeutically, it may be akin to saying, "Since you've used steroids before and damaged your body's natural ability to produce testosterone, we will approve your ability to continue using this PED even though it may cause further harm and put you at an unfair advantage against your opponent".

The actions of athletic commissions are important to VADA's mission because VADA has no independent ability to enforce sanctions against its athletes - other than publicly removing them from the VADA program. VADA

participants are required to hold a license to fight in order to participate in the VADA program and agree to the release of testing results to the licensing body, which may then sanction as appropriate.

Some claim that the responsibility to clean up combat sports should lie with the sport's individual promoters. However, a program administered by the same promoters who profit from the sport leads to adverse incentives and conflicts of interest. Only a truly independent body can effectively oversee an anti-doping program with the necessary level of transparency. The Olympic Movement made this realisation over a decade ago, which led to the creation of WADA.

Boxing and MMA promoters would be wise to understand that their short-term concerns of cancelled fights and lost revenue are much better than the alternative. In the absence of properly addressing this problem, it seems inevitable that a serious injury - or even death - will occur in the ring or octagon caused by someone later revealed to be chemically-enhanced. Hopefully the sport's power brokers will learn about and act on the PED issue before this scenario occurs.

That is why education about PEDs is so important. Education of athletes, trainers, promoters, commissioners and fans.

The fans have been outspoken in their support of VADA's athlete-driven program. The fans understand that an effective anti-doping regime is absolutely critical to the long-term health of their sport. The responsibility is shared by all stakeholders to take combat sports into a new era of transparency and integrity.

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