

INTELLIGENCE BULLETIN



ASADA

C L E A N F A I R S P O R T

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CEO MESSAGE

To our Partners

Welcome to the first Intelligence Bulletin from the Australian Sports Anti-Doping Authority. Since joining ASADA I have been keen to open lines of communication with sports about the threat of doping and where opportunities might exist so we can discover ways to help each other. I see the sharing of information as a cornerstone to building a solid partnership where our mutual end game serves to protect athletes.

This bulletin is one way we will keep you informed about anti-doping issues affecting sport. Each month we plan to issue a bulletin covering a range of topics from current doping threats to advances in anti-doping education. We will explore developments in the world of anti-doping science and how decisions in the international anti-doping space might impact us here in Australia.

The bulletin is a conversation starter. It is our attempt to inform you and demystify the complex and shadowy world of doping in sport.

We are also keen to hear from you. Do you have an anti-doping story you want to share with the sports community through future bulletins? Do you have ideas on what topics we might include? Or do you want to talk to us directly about a topic and how it might relate to your sport?

Like you, I am passionate about sport. It has been a significant part of my life as a fan, an athlete and as a sports administrator. This passion drove me to accept the appointment as ASADA CEO because I believe sport is an integral part of Australia's cultural landscape. It is linked to health benefits and drives socio-economic change in every community where it is embraced. My job is to protect athletes and their right to clean and fair sport, and I look forward to working with you in this pursuit.



David Sharpe APM OAM



STATE OF PLAY

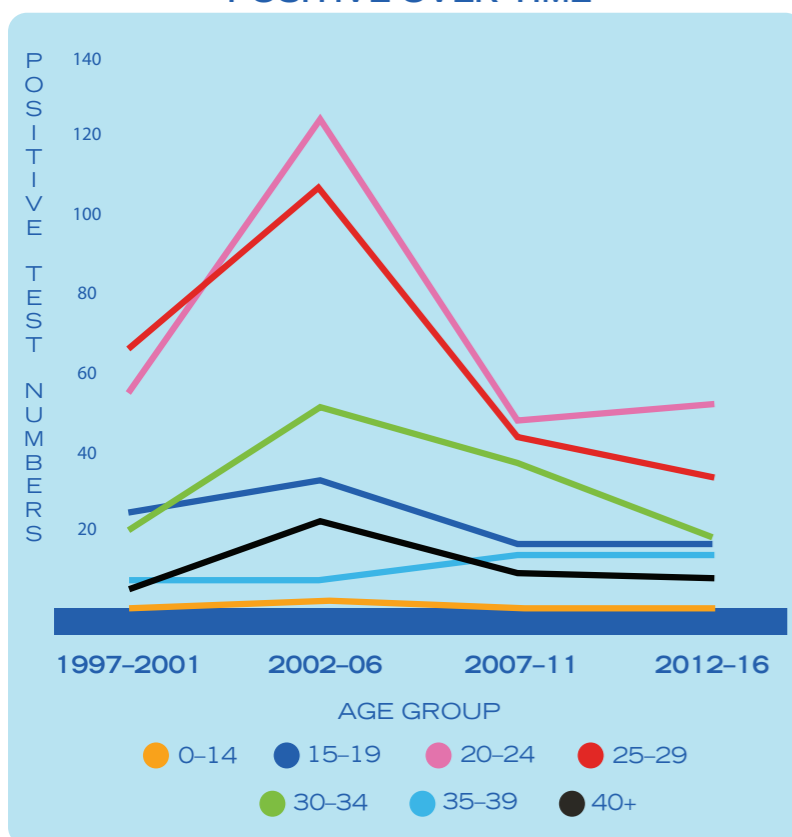
Is Performance and Image Enhancing Drug (PIED) use in the general community changing sport?

Though there are no solid statistics quantifying the current level of use of PIEDs in the Australian community, anecdotal reporting suggests that the use of PIEDs has become so common that it has become “normalised”. With a wide range of PIEDs readily available online, along with detailed advice on how to dose for the best results, PIEDs are within the reach of any motivated individual. Though some consumers are seeking increased strength and performance, others can be simply motivated by a desire for body image enhancement.

The idea that a growing number of Australians now consider it ‘OK’ to consume PIEDs is consistent with ASADA’s intelligence on doping in sport. That intelligence indicates that PIEDs and other WADA prohibited substances are now being used in almost all sports, from Junior to Masters age groups, and across almost all levels of competition. The seeming spread of doping throughout sport in Australia raises significant questions for ASADA, such as how to direct ASADA’s capabilities and resources to where they can have the greatest possible positive anti-doping effect, such as through education.

The graphic on this page shows the age of athletes testing positive for WADA banned substances over four consecutive five-year blocks from 1997–2016. The majority of positive tests are among the 20–24 years and 25–29 year age group – the ages at which most athletes are competing at the highest levels of their sport. Notably however, the 15–19 year age group has consistently returned around 20 positive tests per year across the 20-year period, despite that age group receiving around half the number of tests of athletes in the 20–24 year age group. This indicates that doping in the junior age group (15–19 years) has been a problem for 20 years and shows no sign of going away. Furthermore, it is likely that more testing in that age group may reveal more positive tests. Similarly, despite a relatively modest testing program among 35–39 year old athletes, this age group has shown an overall trend toward an increase in positive tests over time.

AGES OF ATHLETES TESTING POSITIVE OVER TIME

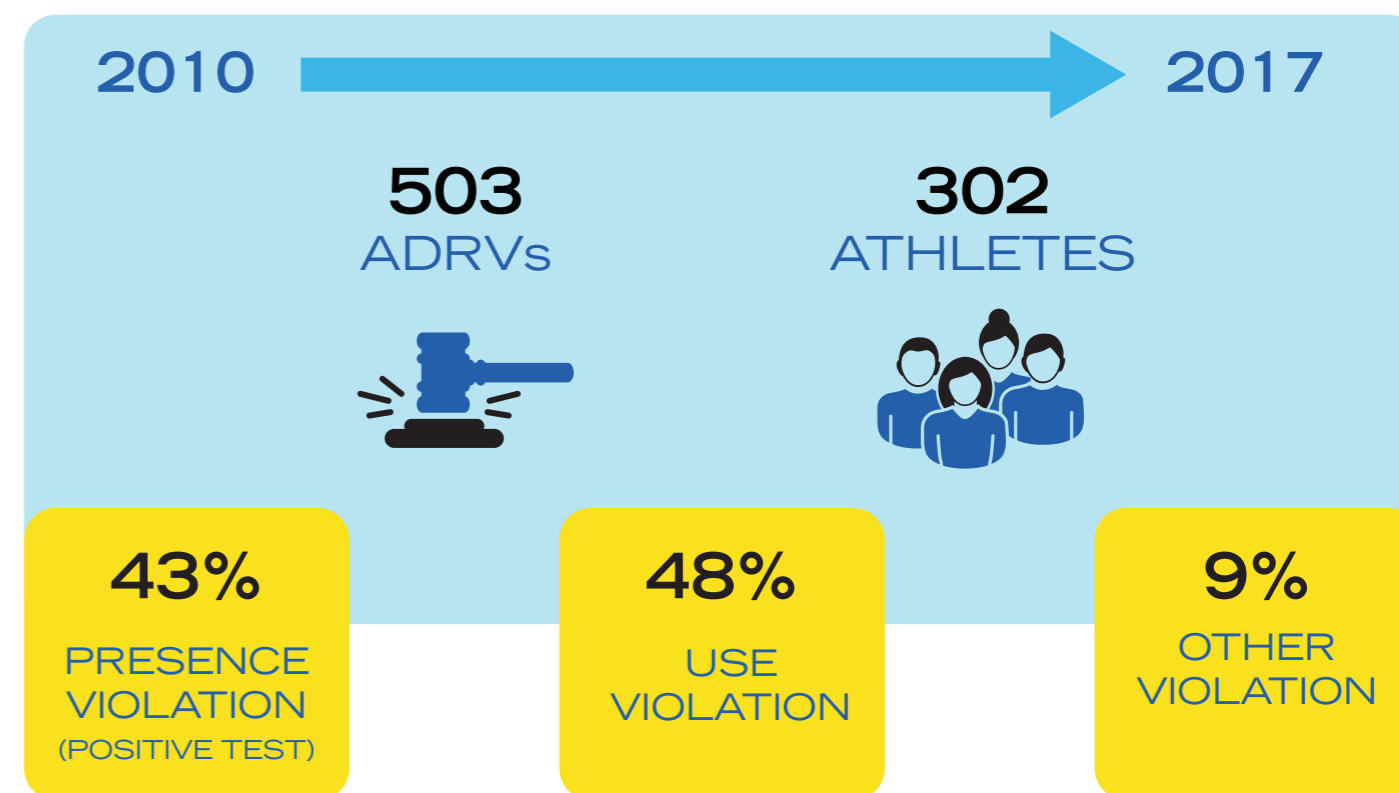


ASADA is concerned with protecting the health of all athletes. Consequently, in addition to working with law enforcement and regulatory partners to better understand the Australian PIEDs market, ASADA’s anti-doping regime goes beyond a traditional test-based, enforcement oriented program to one that strives to prevent athletes from either intentionally or inadvertently doping. In particular, ASADA will be using an evidence-based, intelligence-led approach to focus on delivering preventative and educative programs to those athletes, in those sports, and at those levels, where it is most needed. The sports themselves will be important partners in this work, and have a critical role in ensuring a healthy culture and level playing field. ■

Anti-Doping Rule Violations

Though a failed doping test may lead to a sanction for an athlete, only one of the ten possible anti-doping rule violations (ADRV) under the World Anti-Doping Code relates to a positive sample.

ASADA ADRV statistics for the eight years from 2010 – 2017:



“Possession” and “trafficking” violations ranked third and fourth respectively as the most common forms of ADRVs. In most cases, these ADRVs resulted from the provision of information and intelligence to ASADA from Law Enforcement and Border Protection partner agencies. As ASADA strengthens its relationships with these partners and develops its data analytics capability, it is anticipated that possession and trafficking ADRVs will increase. ■

UNDER THE MICROSCOPE

SARMS—Buyer Beware

Selective Androgen Receptor Modulators (SARMS) are a class of substances first developed to support the recovery of muscle tissue in cancer patients. Their potential for abuse in sport was recognised over a decade ago and they were first listed on the World Anti-Doping Agency (WADA) Prohibited List in 2008 and banned for use both in-competition and out-of-competition. More generally, they were scheduled on the Australian Poisons Standard in 2013, and listed as prescription only medicines, with their possession without authority deemed illegal.

There is no current regulatory approval for the therapeutic use of SARMS in Australia. Despite this, eight Australian athletes have tested positive to a SARM since 2016. Testing positive to a SARM will almost certainly result in a career ending four-year sanction.

A recent ASADA intelligence probe has revealed that, despite regulatory restrictions, SARMS are being openly marketed and sold online and in-store by some unscrupulous Australian-based supplement suppliers. This finding serves as a timely reminder to athletes and support persons that the mere fact something may be on open display in a store, or successfully ordered online, does not guarantee it is being lawfully supplied, let alone permitted for use, possession or administration within sport.

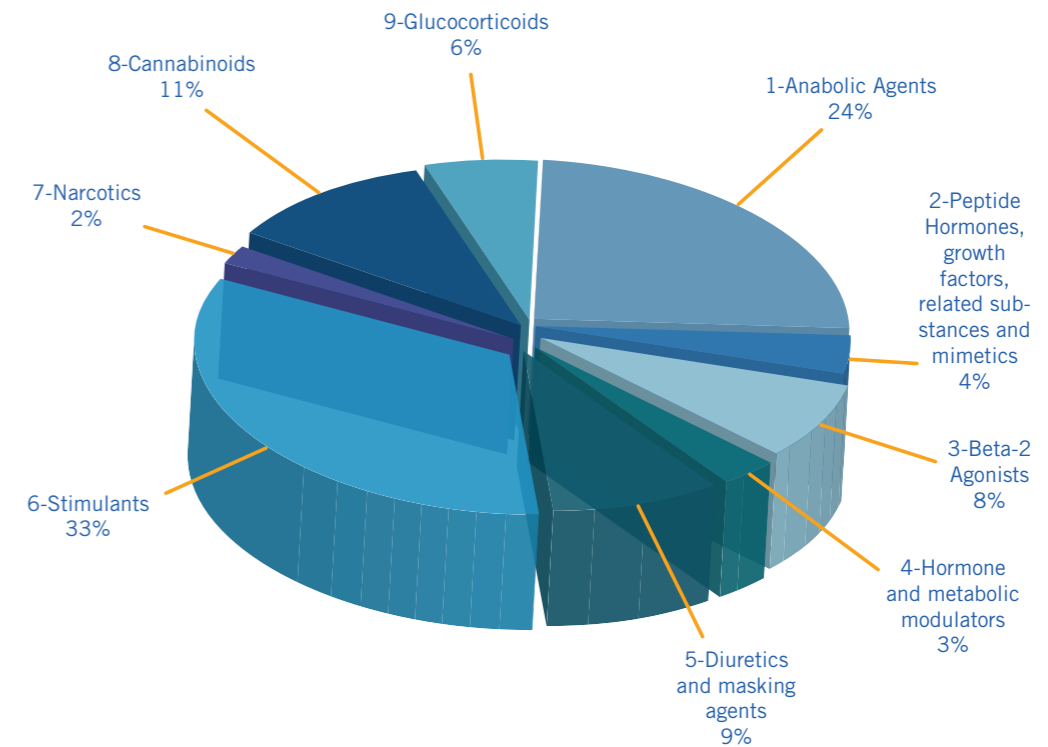
ASADA provides two useful tools to assist athletes and support persons in identifying substances that are prohibited in sport, and to mitigate the risk of taking nutritional supplements that may contain prohibited substances. The first tool is ASADA's Check Your Substances online medication checking tool, providing information about whether a substance is listed on the WADA Prohibited List. The second tool is ASADA's new Clean Sport app, which is discussed in the story about ASADA's Education initiatives.

The misuse of SARMS in sport not only goes against the values of fair competition, but also engenders real risks to long-term health, and may even result in a criminal record for users.



8

Australian athletes
tested positive to
SARMS
since 2016



The pie graph shows the percentage of positive tests for each category of WADA banned substance over the ten-year period from 2007 – 2016.

What can be seen is that Stimulants – the substances most likely to be found in supplements and medications – account for a third (33%) of all positive tests. These findings highlight the risks posed by supplements, and the importance of athletes being mindful of what they are putting into their bodies.

There continue to be real concerns around all supplements whether they are purchased in Australia, on the internet or from overseas. The current lax regulations both here and around the world means that at least 20% of supplements have been found to contain substances that are not written on their label of contents. For this reason ASADA (and many sports) advise that athletes should only use supplements that have been tested by an independent reputable agency (third party batch testing) to minimise the risk of testing positive to prohibited substance that the athlete did not know was in the supplement. Information on batch tested supplements is available on the ASADA App (see page 9). ■

“Batch testing only confirms that the label accurately records the contents, it does not guarantee that the supplement will provide a benefit to the athlete or that it is safe to use. This discussion should always occur with the athlete and their doctor, or dietician.”

Dr Susan White MBBS (Hons), FACSEP



OVER THE HORIZON

Gene Doping—the future risk picture

For as long as there have been competitive sports, there have been athletes willing to do whatever it takes to win. 'Gene doping' is the next evolutionary step in sports doping.

WADA defines 'gene doping' as "non-therapeutic use of cells, genes, genetic elements, or modulation of gene expression, having the capacity to enhance athletic performance". Put simply, gene doping is the use of gene therapy by otherwise healthy athletes to enhance athletic performance via the modification of their genetic makeup.

Though there has never been a confirmed case of gene doping in sports, in 2004 it was reported that a number of coaches and athletes made enquiries with scientists who had successfully used gene therapy to double the endurance of laboratory mice.

Gene therapy is largely still experimental. A number of clinical trials have been discontinued due to unforeseen side effects, including serious illness and death.

Given the complexity of gene doping, the significant medical expertise, resources, equipment and funding required, and the ethical issues associated with it, it is unlikely that gene doping will become widespread among individual athletes in the short to medium term. Rather, gene doping is more likely to be explored by rogue States on a larger scale involving multiple athletes. It may also be used to dope promising children and very young athletes prior to their entry to high-level competition. In this way a new "normal" can be established before the future athlete has their first interaction with anti-doping testing, making the genetic changes difficult to detect.

Australia's National Measurement Institute is a world-leader in the detection of gene doping. They have developed and implemented a method for the detection of EPO Gene Doping. ■



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ASADA anti-doping education—a fresh and innovative approach

Virtual reality goggles? Apps? Games? Anti-doping education is taking on a whole new look. Once a 'tick the box' exercise, typically delivered by a lecture on the rules, ASADA is reinvigorating its education program with innovative approaches and sport-specific solutions to better engage athletes, and ultimately help prevent doping in Australia.

In the past six months ASADA has developed three world-first anti-doping education resources:

A virtual reality testing experience, which guides users through each step of a urine test, from paperwork to pee.

An augmented reality supplement experience, which aims to teach athletes about the warning signs of dodgy supplements. Using their own mobile phone cameras, athletes scan supplement bottles to find warning signs that trigger a reaction on their phone – in this case, pop up gremlins!



A new ASADA mobile app offering a comprehensive database of batch tested supplements. Athletes can use the app on their iPhone or Android device to:

- check a supplement, medication or substance,
- report doping quickly and confidentially,
- give ASADA feedback, and
- access education tools like our online learning modules.

All three technologies were developed and successfully launched by the Minister for Sport and the ASADA CEO at the Gold Coast Commonwealth Games in April 2018. With positive feedback from athletes and support personnel from countries including Pakistan, Canada, South Africa and the UK, ASADA is now looking to work with Australian sports so athletes at home can benefit from these innovative technologies. In particular, we want to develop experiences customised to individual sports. If you are passionate about protecting your sport and your athletes, and interested in being one of our technological guinea pigs – we'd love to hear from you! ■



SCIENCE INTELLIGENCE

GW1516—popular but deadly

GW1516, also known as GW501516, Cardarine and Endurobol, was originally developed in the 1990's as a treatment for diabetes, obesity and cardiovascular disease. It was discontinued in 2007 after it was linked to the rapid development of cancer during trials on mice.

GW1516 works by forcing skeletal muscle to use fat rather than carbohydrates as an energy source. Used by some for fat loss, in the context of athletic enhancement, GW1516 also has benefits as an endurance aid. In fact, a number of online forum participants recommend the use of GW1516 over EPO, as they claim it offers significant improvements in endurance, without the risk of blood clotting associated with EPO.

GW1516 has been linked to a number of positive doping tests in endurance-related sports. After a number of positive tests for GW1516 in 2013, WADA and ASADA released a warning on its health risks. In 2015 and 2016 there were less than six positive tests for GW1516 globally each year. In 2017 however, the number of positive tests for GW1516 rose to 31.

In June 2018 the Therapeutic Goods Administration (TGA) included GW1516 in the Poisons Standard under Schedule 10 – a schedule reserved for substances of such danger to health as to warrant the prohibition of sale, supply and use. Athletes seeking to obtain an “edge” from the use of GW1516 need to be aware that they risk more than a positive test if they choose to take it – they may be risking their life. ■



FAR AND WIDE

International engagement

International cooperation and engagement is integral to the pursuit of clean sport globally and is a key element of ASADA's strategic vision. In June 2018, ASADA and close counterparts Drug Free Sport New Zealand (DFSNZ) convened in Canberra for the inaugural meeting between the two agencies to share key trends, outcomes and challenges across education, intelligence, investigations and testing. Key outcomes that will shape the agencies collaborative approach to enhance engagement and capacity building in the Oceania/Asia region include:

- ways to strengthen the voice of athletes in the anti-doping space,
- reviewing whistleblower systems and support,
- targeting the distributors and suppliers of PIEDs in the region, and
- enhancing intelligence through partnerships with law enforcement and intelligence agencies.

Also in June, with the support of DFSNZ and the Oceania Regional Anti-Doping Organisation (ORADO), ASADA led a contingent of staff to work in partnership with the International Weightlifting Federation to deliver the anti-doping program for the Oceania Senior and Junior Weightlifting Championships in New Caledonia. The program included both intelligence-led testing and analysis services, and an on-the-ground education and outreach event, modelled on ASADA's Commonwealth Games engagement program. Working collaboratively with DFSNZ and ORADO is integral to the Australian Government and ASADA's commitment of 'closing the gap' between NADO capabilities to ensure athletes, from Australia and abroad, are subject to the same high standards of testing, intelligence and analysis, regardless of where they compete. ■



ASADA and DFSNZ in Canberra, June 2018

HELP US HELP YOU

Feedback

As a new initiative from ASADA, we are keen to hear from you.

Do you have an anti-doping story you want to share with the sports community through future bulletins?

Do you have ideas on what topics we might include?

Do you want to talk to us directly about a topic and how it might relate to your sport?

Did you find it useful or informative?

Are there ways for us to improve it?

Do you have topic suggestions for future bulletins?

[Send us an email](mailto:ExecutiveOffice@asada.gov.au) <ExecutiveOffice@asada.gov.au>—all feedback is appreciated.

AUSTRALIAN SPORTS ANTI-DOPING AUTHORITY

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