

Supplement use behaviours and doping vulnerability

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Supplement use is widespread in sport, with athletes consuming a large variety of supplement products for a multitude of reasons. These include meeting energy demands, recovery from training, addressing nutritional deficiencies, and convenience. Whilst common place in sport, supplement use is a complex and multifaceted behaviour that intersects with the principle of strict liability, increasingly sensitive doping control tests, and a poorly regulated and heavily marketed industry. This so called dopogenic environment renders athletes vulnerable to unintentional doping. As there are no guarantees that a supplement is free from prohibited substances (i.e., anabolic agents, stimulants), athletes can unknowingly ingest these substance and risk committing an anti-doping rule violation. Indeed, analytical studies repeatedly demonstrate the presence of prohibited substances in supplement products, most commonly 1,3-dimethylamylamine, higenamine, sibutramine, and androgenic steroid compounds. Supplements purporting to build muscle, lose weight, boost energy, and enhance sexual performance present the greatest risk. It is therefore important for athletes to adhere to risk minimisation supplement use guidelines (RMSUG). This includes only using supplements that have a robust scientific basis for use, are third-party batch tested and certified (e.g., Informed Sport), and carefully recording all supplements being used. In asserting the importance of adhering to RMSUG we must recognise that there are significant barriers to adherence for some athletes, in some countries. Further, it is evident that athletes and athlete support personnel are not fully aware of the risks associated with supplement use. Therefore, increasing education across all levels of sport is vital to mitigating the risk of unintentional doping, and the potential health harms associated with ill-informed supplement use. While supplements can offer benefits to athletes, it is important to raise awareness of the significant risks they pose to the competitive athlete. By understanding these risks and enabling adherence to RMSUG, athletes can make better informed decisions and protect themselves from the consequences of doping violations.