

# cannabis and sport

## how does cannabis affect sporting performance?

Cannabis use can negatively impact on a person's sporting performance in a variety of ways. It is known to increase heart rate while decreasing cardiac stroke volume, resulting in diminished peak performance. It can also result in reduced sport performance through slowed reaction time, problems with motor coordination, hand-eye coordination, and perceptual accuracy. Cannabis can affect appetite and food cravings and potentially undermine body mass and nutrition. Use of cannabis could even be potentially dangerous in sports that rely on quick reactions and fast decision-making.

In addition, for some people, cannabis use can cause increased anxiety, panic, nervousness and restlessness thus causing disruption to sleeping patterns. Some people may believe that cannabis use makes them sleep better and be more relaxed and less nervous before playing sport. Currently however, no research has objectively demonstrated that cannabis use results in observable increases in performance through relaxing the athlete or improving their sleeping patterns.

In terms of the effect of cannabis use on the respiratory system, smoking any substance is harmful and can reduce the effectiveness of the body's ability to absorb the required amount of oxygen needed for optimum sports performance. Smoking cannabis exposes the lungs to both carbon monoxide and tar which increase the risks of a range of health problems including respiratory tract infections, bronchitis and lung cancer.

## is cannabis use common among professional sportspeople?

Participation in competitive sports has been shown to be a protective factor against drug use with the notable exception of anabolic steroids and other performance-enhancing substances. In recent research, 20.8 per cent of 20–29 year-olds in the general Australian population had used cannabis in the last year compared to 3.7 per cent of 20–29 year-old athletes.

## are sportspeople tested for cannabis use?

Since 1989 cannabinoids (compounds found in cannabis), have been included in an annually updated list of substances that are prohibited to elite athletes kept by the International Olympic Committee (IOC) and more recently by the World Anti-Doping Agency (WADA). The prohibition is subject to an amount of cannabis in the urine greater than 15ng/ml in urine tests so as to allow for the possibility of passive inhalation. Cannabinoids are banned in-competition and if an Australian athlete is tested, and cannabinoids are present in their system, they have violated the WADA Anti-Doping Code. This code, which is sanctioned by most sporting bodies, states that the penalty for first violation is two years of ineligibility to compete.

In summary, evidence suggests that cannabis use has a negative effect on a person's sporting performance. This, combined with its illegal status, means that amongst professional sportspeople, cannabis is used at much lower levels than in the general Australian population.

For more information visit the [NCPIC cannabis and sport website](#) to order free resources and see the NCPIC research brief '[cannabis and sport](#)'.