

# Psychotropic drugs in the Olympic Games: Doping regulations and athletes' mental health medications

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Elite gymnast Simone Biles [made headlines in 2021 when she withdrew from the team finals and the individual all-around finals](#) in the 2020

Tokyo Olympics [for mental health reasons](#). Before that, Biles's confidential medical records from the [World Anti-Doping Agency](#) (WADA) database [had been leaked by hackers](#) alongside the records of dozens of other athletes worldwide.

The illicit disclosure, which happened right after the 2016 Olympic Games in Rio de Janeiro, revealed that some athletes were legitimately using banned substances—those included in the [WADA Prohibited List](#)—to treat specific medical conditions. But should the therapeutic use of banned substances [be considered doping](#)?

The [International Olympic Committee](#), the organization that has led the [Olympic Movement](#) since the first modern Games, [declared at the time of the hack](#) that the attack was aimed "at tarnishing the reputation of clean athletes" who had lawfully obtained clearance to use such medications through [Therapeutic Use Exemptions](#) (TUEs), which were also leaked in the hacking episode.

TUEs are medically approved exemptions that allow athletes to use substances normally banned by the bodies that regulate their specific sports.

The violation of the athletes' privacy reignited [a series of discussions](#) about doping in sports, especially in the case of TUEs that allowed the use of [opioids](#), [corticosteroids](#) or [stimulants](#). While the first two classes of drugs are used to either treat or enhance physical conditions, stimulants are part of a group called [psychotropic drugs](#), which presents particular challenges and dilemmas to the world of elite sports.

## **Psychotropics and mental health**

[Psychotropic medication](#) is an umbrella term that encompasses substances that alter or affect mood, thoughts, perception or behavior.

Five main types of medication make up this category:

- antidepressants, often used to treat acute or chronic depression
- anti-anxiety medications, used for generalized anxiety and panic disorders
- antipsychotics, which help treat schizophrenia and similar conditions
- mood stabilizers, joint in the treatment of bipolar disorder
- stimulants, frequently used to treat attention disorders, such as attention deficit hyperactivity disorder (ADHD)

Pharmaceutical approaches, either alone or in combination with psychotherapy, are among the [main treatments](#) for [mental health disorders](#). A recent analysis of data from 65 countries demonstrated that in 2019, the amount of psychotropic medicine sold was around [35 doses per 1,000 people each day](#), a number that had been climbing by about four percent per year for over a decade.

## Psychotropics and the Olympic Games

The first antipsychotic drugs were [introduced in the early 1950s, and antidepressant medications followed](#) in the late 1950s. However, stimulants such as amphetamines had been in the [pharmaceutical market since 1935](#) and have been used by [professional athletes](#) at least [since the 1940s](#). Even though the use of all forms of amphetamines is now banned by IOC, it was not prohibited at the time.

According to the International Olympic Committee, anti-doping testing in the Olympics began [in the 1960s](#). The first Olympic Games with systemic and organized testing was the Winter Olympic Games in Grenoble, France, in 1968, followed by the Summer Games in Mexico City in the same year. The WADA would be established three decades later, in 1999.

A [systematic review](#) from 2022 indicated that [different types of drugs seem to affect athletic performance differently](#). While antipsychotics are likely to have an impairing effect on athletes, stimulants can have a performance-enhancing effect. The results for antidepressants were either inconclusive or contradictory.

The results about stimulants are [aligned with previous findings](#) about this type of substance, which helps explain why they are the only class of psychiatric drugs on the [WADA Prohibited List](#). During Olympic competition, stimulants cannot be used by any athletes except those with a TUE. Nevertheless, the reality of being a professional athlete and treating mental health issues pharmaceutically, even with substances other than stimulants, can be drastically more complex.

## **No simple answers**

There are multifaceted aspects to taking medications, even more so when one is a professional athlete. Any substance taken to treat a medical condition may have unintended effects, and some of these side-effects might be considered doping.

Take the case of [track and field athlete and Olympian Brenda Martinez](#), who was caught doping as a result of an unlisted diuretic substance in her antidepressants. Since diuretics can lead to rapid weight loss, they are considered a performance-enhancing substance banned by the WADA.

Since even side-effects of medications might be performance-enhancing, the already challenging task of regulatory agencies such as WADA becomes even more complex.

For example, [beta-blockers](#) are frequently used to regulate blood pressure and are known for their anti-anxiety effects. While its effect of lowering heart rate might impair performance in some sports, it can be

extremely beneficial in sports that require concentration and steadiness, such as archery and shooting.

## **Future challenges for athletes' use of psychotropics**

Mental health disorders are common globally. A recent [analysis published this year](#) has suggested that by age 75, almost half of the world population is expected to develop at least one of the 13 mental disorders investigated by the World Health Organization. Given that [the incidence of mental disorders in athletes](#) is similar to that of the general population, it is clear that this topic is of great interest to the professional sporting world as well.

Evidence suggests different psychotropics can affect performance in both positive and negative ways. The International Olympic Committee is aware of the challenge ahead and in 2019 published a [consensus paper](#) on mental health in elite athletes. The paper highlights the importance of scientific research to ensure that athletic performances are neither hurt nor unfairly enhanced by the use of psychotropics.

It is very positive that athletes like Biles and Noah Lyles, both gold medalists in the Paris Olympic Games, are fostering conversations about mental health and athletes. In a [viral tweet](#) with close to 300,000 likes, Lyles has recently spoken about his mental illnesses and suggested that others should not feel discouraged by their own struggles. There are clear indications, after all, that future Olympic games may see an increase in the number of athletes with diagnosed mental conditions and, likely, with [TUEs as well](#).

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