

## Tramadol & Sports

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### What is Tramadol?

Tramadol hydrochloride is the full name: is a centrally acting opioid analgesic used to treat moderate to moderately severe pain". It's sold under a range of brand names .It works on the brain and nervous system to reduce pain and is a medium to strong pain killer, this is not what people take for a headache. Instead it's used for chronic and acute pain relief. As an opiate it can be addictive. Indeed as well as correct use it is also abused. By some measures prescription drugs, including Tramadol, are abused in greater quantities in the US than illegal drugs from heroin to cocaine *etc.*

Tramadol is abused around the world thanks to its addictive properties, for example it's been widely used in Gaza where the opiate properties provide relief to bored kids and tired tunnellers alike while the British are considering banning its sale. Searching the web for information on the molecule for this piece revealed countless websites offering it for sale.

As a painkiller it's probably got greater uses in other sports, for example where injury during play is more common, for example football. But rather than taking painkillers following injury they are being consumed before. **One study by football governing body FIFA revealed about one third of the players in the 2010 World Cup were regularly taking painkillers prior to a game.** This could be anything from paracetamol to Tramadol. The point is that this drug is being used and abused all round us.

The subject has gained more coverage and there seem to be two uses:

- As pain relief for injuries allowing athletes to train or even compete through an injury
- It's being taken in conjunction with caffeine, mixed into a "finish bottle", a Cocktail consumed in competitions to provide a small upserge and numb the athlete to an extra effort. "Tramadol to blame for classics crashes says Dr. Lotto-Belisol", that's a headline from **Cycling Weekly**. An early crash in the Tour of Flanders, long before anyone reached for a "finish bottle".

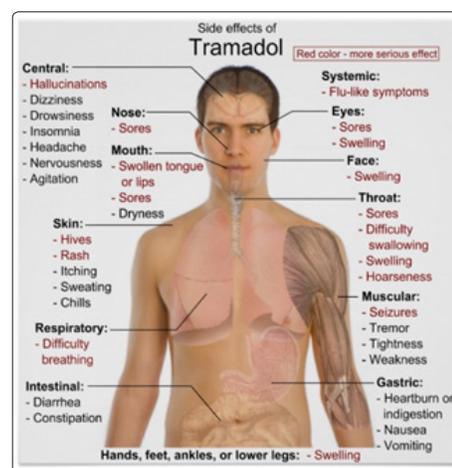
But it still matters. We can't reduce the street furniture very easily but we can ask why anyone would consume a powerful opiate during the final hour of a race. It's not banned in competition but it is on the World Anti-Doping Agency's monitored list. Should more analgesics be added to the List or should narcotics and cannabis be removed? Is the use of pain medication doping? As defined by Article 2 of the World Anti-Doping Code (Code) [1].

### Here's WADA's explainer on their monitoring programme

Laboratories will report the instances of reported use or detected presence of these substances to WADA periodically on an aggregate basis by sport and whether the samples were collected in-competition or out-of-competition. Such reports shall not contain additional information regarding specific samples. WADA shall make available to International Federations and National Anti-Doping Organizations, on at least an annual basis, aggregate statistical information by sport regarding the additional substances. WADA shall implement measures to ensure that strict anonymity of individual Athletes is maintained with respect to such reports. The reported use or detected presence of a monitored substance shall not constitute an anti-doping rule violation.

Although, Evidence suggests that the currently prohibited narcotic analgesics (opioids) and cannabinoids are not ergogenic and in fact are ergolytic [2].

### Side Effects of Tramadol



### Why isn't it banned in Sports?

Because not all drugs are banned. An athlete might need powerful painkillers following a serious injury, for example broken bones after a bike crash. This invites the question of **Therapeutic Use Exemptions**, if an athlete is in serious pain following an injury then by all means do the paperwork, get the TUE letter, and use the painkiller. But if an athlete needs such a powerful drug then surely they're in no healthy state to race?.

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Therapeutic Use Exemption process could allow the in-competition use of prohibited analgesics for medical reasons, but the application of this rigorous process is challenging for applicants due to short-term prescribing patterns and lack of objective criteria for diagnosing pain [3].

### Safe dose?

Even if it's not banned it doesn't mean it's safe. Bear in mind that those willing to take pharmaceuticals will often exceed the dosage; to make the point look at widespread EPO use in the Sports which, when it was undetectable, saw wild consumption. If medical advice says take two pills then someone will take three and another will take four or even six.

### Conclusion

It might be a contributory factor in some crashes but so are many things from fatigue to weather to street furniture. Maybe tram lines are more dangerous than Tramadol? Crash risks are hard to quantify so let's put talk of accidents aside. What's more certain is the first order side-effects of such a powerful drug, from nausea to addiction and that if you need a painkiller this strong then you probably shouldn't be taking part in any Sports Event.

This is a drug to be avoided wherever possible and reserved only for real analgesic use but it's showing up in anti-doping control samples. It seems like it's only a matter of time until it's banned by WADA.

### References

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3. World Anti-Doping Agency, International Standard for Therapeutic Use Exemptions (ISTUE), World Anti-Doping Agency website. <https://www.wada-ama.org/en/resources/therapeutic-use-exemption-tue/international-standard-for-therapeutic-use-exemptions-istue> 2016, (accessed 21 Mar 2017).

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