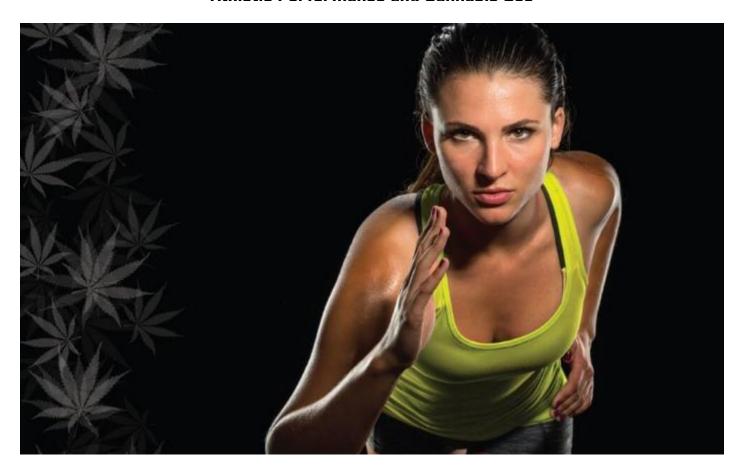
Athletic Performance and Cannabis Use



The mind's connection with the body is strong, and improving one often involves improvement of the other. So, it's no surprise that those who seek to improve their body could also benefit from cannabis, an aid that people have long used for mindfulness and overall well-being. In recent years, more and more evidence is challenging the negative "lazy stoner" stereotype by showing that this plant can indeed be used as a tool by those pushing their physical limits.

Cannabis and the Runner's High

We've all heard of the runner's high. It's a feeling can be described as euphoric, anxiolytic (anti-anxiety), sedative, and analgesic (pain relieving) all at once. It's also similar to the high one can get from ingesting cannabis.

The runner's high is only achieved after prolonged physical exertion, and its effects can help an athlete deal with the discomfort one endures when physically pushing themselves. For decades, it was believed the main biomechanism of a runner's high was the release of endorphins. However, a 2015 study (Fuss et al.) found this to be only half of the phenomenon.

The research, which was performed on mice, found that "running increases plasma levels in β -endorphin (Opiod) and anandamide (endocannabinoid/eCB) in mice and men". In other words, it affects the endocannabinoid system. This group of receptors is found within the central and peripheral nervous system.

Described as "the body's own cannabinoid system", its main function is to maintain homeostasis within the human body. The results of the study found that the endocannabinoid receptors CB1 and CB2, which are the system's main receptors, are crucial for a runner's high in mice.

So, with this information brought about from this study, it can be concluded that the feelings of euphoria from a runner's high can be simulated by ingesting cannabis before physical activity. Cannabis essentially puts your mind and body into this state before your body can produce it naturally.

The ability to force the effects of a runner's high can be a tremendous advantage for those wanting to push themselves in their training regimen. The use of cannabis as a focusing agent and anxiety reducer can also help athletes better perform under pressure during competition.

A 2011 study by Huestis et al. titled "Cannabis in Sport" also shows that cannabis plays a role in the extinction of fear memories, such as traumatic events and injuries athletes may have endured, during training and competition. This reduction in fear can be what an athlete needs to push themselves to the next level.

Cannabis and Athletic Performance

The question of whether cannabis can be considered a performance enhancer is still up for debate, and it has been widely discussed at every level of sports competition. Still, there's no doubt that the old belief that cannabis only breeds lazy stoners is slowly being reversed. There's an increasing number of athletes coming forward with their personal experiences in utilizing cannabis during training.

So, how much of an edge in training can cannabis give you? That depends on the user's perspective and intended goals. Olympic snowboarding gold medalist Ross Rebagliati and MMA fighter Nate Diaz both claim that cannabis doesn't make them faster or stronger, but allows them to train harder and for longer periods of time.

"The motivation that you need to go and pound out the workout and go and do the 100-km bike ride—cannabis really got me out on a regular basis," Rebagliati said in an interview with *Hydrolife*. During a live 2016 post-fight press conference where he famously vaped CBD oil, Diaz also said that CBD "helps with healing process and inflammation and stuff like that. So, you wanna get these for before and after the fights, training. It'll make your life a better place."

Cannabis and Athletic Recovery

Intense workouts can take its toll on both the body and mind. Pain, stiffness, and muscle fatigue are all common post-training symptoms, and much research has been done on delayed onset muscle soreness (DOMS). While these symptoms can decrease motivation and even cause a workout to do more harm than good, the 2015 Sports Medicine study "Cannabis and Exercise Science" by Gillman et al. shows there is a growing body of evidence that cannabis—specifically, CBD-rich strains—can be used to help counter DOMS. The anti-inflammatory and analgesic properties of cannabis can aid in the recovery of intense workouts.

Cannabis Application During a Workout

Many athletes prefer edibles such as brownies, chews, and cannabis-infused energy bars during their workouts. Edibles are discrete and the delayed high they offer will kick in when it's needed most during intense workouts. Also, the heavy high provided is great for focused-based activities. If you are considering using edibles during your routine workout, be sure to plan accordingly: drink plenty of water, know your tolerance, and only ingest what your capable of.

Balms and salves are a great way to aid in muscle soreness and recovery. They can be applied pre- or post-workout. Massaged thoroughly into the desired location, these topical medicines can effectively reach deep muscle tissue, nerves, and epidermis. THC-rich strains will help with pain and soreness, while CBD-specific strains can help with inflammation and long-term recovery. Also, topical treatments will not reach your bloodstream, which can be a plus for those that do not want the cannabis high.

Whether cannabis can give athletes an edge is up for debate, but there is no denying it has recovery and healing benefits everyone can use. Sure, cannabis doesn't make you bigger, faster, or stronger, but its effects are felt indirectly, the same way good nutrition and overall well-being will influence the body. It's just up to the athletes and weekend warriors to decide for themselves if their training can benefit from cannabis.