

The Emergence of CBD Supplementation in Sport

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Over the last two decades, products containing cannabidiol, commonly known as CBD, have burst into the sports supplement world in all forms of oils, powders, tablets, creams, and gels each purporting a wide range of health benefits. The Agriculture Improvement Act of 2018 (2018 Farm Bill) authorized the production of hemp and removed hemp and hemp seeds from the Drug Enforcement Administration's (DEA) schedule of Controlled Substances, paving the way for heightened prevalence and visibility of hemp and CBD products.¹ This offseason MLB even announced a partnership with a CBD company, the first major professional sporting league to do so.²

What is CBD?

Cannabidiol, or CBD, is a naturally derived chemical that comes from hemp plants. It differs from Tetrahydrocannabinol, or THC, the psychoactive ingredient in marijuana that produces the "high" effect. Currently, the FDA has not approved any non-prescription forms of CBD for therapeutic use.³ However, this has not inhibited companies from producing foods, drinks, supplements and beauty products containing CBD.

What Does the Research Say?

There is abundant research showing the benefit of CBD for treatment of seizures, and ongoing research for treatment of a variety of conditions including Parkinson's Disease, Schizophrenia, and anxiety. Currently, research supporting the usage of CBD for all other purposes is limited. In research for use in epileptic seizures, adverse effects have been noted, including diarrhea, vomiting, fatigue, liver abnormalities, and drug interactions.⁴ Off-label uses outside of the current research claim many wide-ranging benefits, but none have been corroborated by scientific research. However, such scientific research on CBD is limited due to regulations in the United States and other countries.

What to Know About CBD in Supplements

Much like any other supplement on the market, CBD supplements are not closely regulated by the FDA and as such cannot be confirmed to contain the exact contents on their label. Some companies have used independent laboratory verification to assure dosages in their products align with their labels. Those CBD

products that are independently verified have gone through such testing to assure that they contain the listed amount of CBD, contain less than 0.3% of THC in line with the requirements of the 2018 Farm Bill, and do not contain other substances not listed on the label.⁴ A recent study of 84 CBD products (non-NSF certified) showed 25% contained lower levels of CBD than labeled, and 18 products were found to contain THC.³ This makes such non-verified products risky for athletes to take.

Where Does That Leave Us?

When any supplement emerges onto the market, anecdotal results precede the production of scientific research. As with any other product, it is prudent for healthcare professionals to urge caution to our athletes when beginning the supplementation of such products. CBD research is currently limited but anecdotal results are abundant and many of our players are asking questions regarding the use of CBD supplements to help with performance or recovery. No current independent research supports the use of CBD for such purposes at this time. However, if an athlete does wish to use a CBD product, we must advise that they proceed with caution, confer with their physicians and medical staff, and seek out products that have been independently verified under the NSF certified for sport program.

References

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4. White, Michael C. A Review of Human Studies of Cannabidiol's (CBD) Therapeutic Actions and Potential *Journal of Clinical Pharmacology.* July 2019. Vol 59, Issue 7. pg 923-934.