

Cannabis for Firefighters

Cannabis has been used as a medicine for millennia, and was brought to the Americas in the 16th century. It wasn't until Harry Anslinger, the head of the Federal Bureau of Narcotics (FBN), coined the term "marihuana" because he believed different races were undermining America by introducing drugs to the people, that cannabis starting being viewed negatively. The word "marijuana" has roots firmly planted in racism. Cannabis was made illegal in 1937 with the "Marihuana Tax Stamp Act", which was later found to be unconstitutional. Then, in 1969, cannabis was designated a Schedule I drug by the DEA. Currently, the Department of Health and Human Services (DHHS) has recommended that the DEA reschedule it as a Schedule III medication, which would put it in the same category as Tylenol 3 with codeine, ketamine, steroids, and testosterone. California and Oregon were the first states to make cannabis medicinally legal in 1996.

Collectively there are over 600 compounds, or "strains" that researchers have identified. The components of cannabis can be broken into two categories - **terpenes** and **cannabinoids**. Terpenes can be understood as the "essential oils" that are found in ALL plants. Examples of terpenes are linolool (found in lavender), pinene (found in rosemary), and limonene (found in lemons). These are components that work with your body to help in a variety of ways, depending on the terpene percentage itself. Terpene profiles can be found online to guide you to the correct terpene and dosage to help with your specific ailment. For example, anecdotally, cannabis can cause some people to have anxiety. This complaint is commonly associated with the terpene Myrcene. If experiencing anxiety is a concern, you would look for a cannabis strain that is low in Myrcene, and higher in the terpene aimed at targeting your specific ailment.

Cannabinoids interact with the body's Endocannabinoid System (ECS) which was first discovered in 1988. Prior to that, cannabis studies were without any knowledge that a person's body is actually designed to use cannabinoids as a system to find **allostasis**. Allostasis is a term for the body's ability to adapt to its *surroundings* and find balance (whereas homeostasis is the body's ability to adapt to *itself* and find balance). Cannabinoids can be both psychoactive (THC, THCV, and CBN) and non-psychoactive (CBD, CBG, CBC). Each of these cannabinoids have their own unique capabilities to help the individual. The combination of terpenes and cannabinoids in the strain of cannabis can be custom fit for the desired effect of what you are looking to achieve medically which is known as the "entourage effect". The entourage effect is the key to understanding the medicinal value of cannabis. The combining of specific terpene and cannabinoid profiles allows for a broad range of effectiveness in treating a vast array of ailments.

70% of firefighters experience chronic pain which require medicines to treat. Numerous clinical studies have been performed, and an overwhelming preponderance of evidence supports its efficacy for use in not only pain management, but reduction of use or cessation of use of opioids. A Canadian study showed a 78% decrease in the amount of opioids individuals required for their pain, with 11% coming off opioids entirely. In 2017, the National Academies of Science, Engineering, and Medicine gave cannabis “conclusive high-quality evidence” (its highest rating) for use in pain management.

Under Maryland's Presumptive Cancer Act, firefighters are far more susceptible (160% to 300%) to cancer than the general public. Those cancers are brain, breast, colon, lymphoma, and prostate. Cannabis is life saving medicine that would help increase the survival rate of firefighters with cancer. Cancer is another field of research in which cannabinoids have proven to have a considerable effect. The main use for cannabis in cancer patients is to treat nausea and stimulate appetite in those undergoing chemotherapy. It can also prevent growth of some types of cancer, as well as prevent spread (metastasis) of cancer throughout the body, allowing chemotherapy to be far more effective. These cancers include, but are NOT limited to brain, breast, cervical, colon, leukemia/lymphoma, and prostate cancer - closely mirroring the list of cancers found within the Presumptive Cancer Act.

Mental health is another prominent issue in the fire service, which until recently had not been recognized as being pervasive. Unfortunately, 12.3% of firefighters have PTSD, and 18.7% experience chronic depression. Furthermore, 46.8% of firefighters have suicidal ideations, with 15.5% having actual suicide attempts. Mental health problems stem from a multitude of factors including traumatic calls, inability to have adequate time to recover between traumatic calls, and sleep problems. Cannabis has been shown to disassociate the brain's trauma response (sympathetic nervous response, or fight/flight) and keep the person in a parasympathetic nervous response pattern, which allows the individual to deal with the trauma they experienced rather than having it later create a traumatic response when remembering the event. Additionally, many of the terpenes and cannabinoids have a euphoric effect on the individual, greatly increasing their feeling of self-worth and happiness, and decrease their fear response. In addition, the sleep studies done on those individuals show deeper, more healing sleep while using cannabinoids. By understanding the terpene and cannabinoid profiles combined with proper dosing, cannabinoids can be used to GREATLY improve the overall mental health and sleep for firefighters, increasing their capabilities of performing their jobs and improving on the service we provide for our citizens, members, and visitors. Firefighters are **three times** more likely to die from suicide than from traumatic death in the line of duty.

Cannabis is medicine. By preventing firefighters from utilizing this medicine, a live-saving resource, is to deny us the adequate tools to perform the job we love so much. We want to come home to our families, and our families want us, the men and women they love, to be as happy and healthy as we can be.