

**AMERICANS AGAINST LEGALIZING MARIJUANA**  
**RESEARCH PAPER**  
**www.aalm.info**

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**CANNABIS SMOKE AND POLLEN ARE KNOWN ALLERGENS**

Cannabis allergy is an issue that affects the users of the drug and those in their environment, including marijuana processors, agricultural workers and those who have contacts with Cannabis aeroallergens and secondhand smoke.<sup>1</sup> The allergy spans the spectrum of hypersensitivity, from dermatitis to rhinoconjunctivitis to life-threatening anaphylaxis (shock). Exposure includes second-hand exposure, ingestion, aeroallergen contact, and skin contact.<sup>2</sup>

Significant exposure to cannabis can elicit marked respiratory and dermatologic allergic reactions requiring proper diagnosis and treatment. Additionally, contaminants such as pesticides or mold related to cannabis production, handling, and/or use may cause adverse reactions of a non-allergic nature.<sup>3</sup>

Various routes of exposure and sensitization can lead to a primary cannabis allergy. Those exposed may become sensitized by inhalation of cannabis allergen through active smoking, and/or vaporizing the drug. Both active and passive exposure may lead to a cannabis sensitization and/or allergy. Cannabis allergy can vary from mild to life-threatening reactions.<sup>4</sup>

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<sup>1</sup> This is from the American Non-smokers Rights Foundation. "Marijuana, just like other forms of smoking or vaping, is not "safe" compared to breathing clean air. Secondhand marijuana smoke contains hazardous fine particulates and hundreds of chemicals, similar to secondhand tobacco smoke. For workers and the public, it can become another source of indoor air pollution. Nobody should have to breathe drifting secondhand smoke of any kind in the job, in an apartment building, or in other shared air spaces." <https://no-smoke.org/smokefree-threats/marijuana-smoke/>

<sup>2</sup> "An emerging allergen: Cannabis sativa allergy in a climate of recent legalization," Allergy, Asthma & Clinical Immunology, Published: 26 June 2020, volume 16, Article number: 53 (2020) <https://link.springer.com/article/10.1186/s13223-020-00447-9>

<sup>3</sup> "Allergic Reactions to Legalized Marijuana Use in Colorado." International Journal of Mental Health and Addiction volume 16, pages 801–805 (2018), Clinical Case Studies Published: 02 May 2018. <https://link.springer.com/article/10.1007/s11469-018-9924-6>

"Cannabis Allergy: What do We Know Anno 2015," Archivum Immunologiae et Therapiae Experimentalis volume 63, pages 327–332 (2015), Article Review Published: 16 July 2015, <https://link.springer.com/article/10.1007/s00005-015-0352-z>

<sup>4</sup> "Cannabis Allergy: What do We Know Anno 2015," Archivum Immunologiae et Therapiae Experimentalis volume 63, pages 327–332 (2015), Article Review Published: 16 July 2015, <https://link.springer.com/article/10.1007/s00005-015-0352-z>

Where there's smoke, there's fire: cannabis allergy through passive exposure

## **New York Allergy and Sinus Centers**

According to the New York Allergy and Sinus Centers

A marijuana allergy is an adverse immune response to marijuana. Breathing or inhaling marijuana can result in nasal or eye allergy symptoms in some individuals. There have also been a small number of anaphylaxis cases due to marijuana. In recent years, there has been an increase in the number of reports of marijuana allergy.

Cannabis users can also experience Cannabinoid Hyperemesis Syndrome (CHS). CHS is a condition that leads to repeated and severe bouts of vomiting. The condition only occurs in daily long-term users of marijuana. It is rare, but you should be cautious when using marijuana long-term.

According to the American Academy of Allergy, Asthma, and Immunology (AAAAI), a person can develop an allergy or allergic sensitization to marijuana after their first exposure to the plant. This can be inhaling, smoking, touching, or eating marijuana.<sup>5</sup>

## **American Academy of Allergy, Asthma, and Immunology**

According to the American Academy of Allergy, Asthma, and Immunology (AAAAI), a person can develop an allergy or allergic sensitization to marijuana after exposure to the plant. People can have a sensitization after exposure to cannabis allergens in the following ways:

inhaling pollen in the air  
inhaling, smoking, touching, and eating marijuana or cannabis.<sup>6</sup>

Cannabis allergy is an issue that affects recreational users of the drug, marijuana processors, agricultural workers, and those who have contacts with Cannabis aeroallergens and secondhand smoke. The allergy spans the spectrum of hypersensitivity, from dermatitis to rhinoconjunctivitis to life-threatening anaphylaxis (shock). Exposure includes second-hand

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Ine I Decuyper et. al. American Academy of Allergy, Asthma & Immunology,  
PMID: 28161151 DOI: 10.1016/j.jaip.2016.10.019  
<https://pubmed.ncbi.nlm.nih.gov/28161151/>

<sup>5</sup> <https://www.nyallergy.com/marijuana-allergy/>

<sup>6</sup> American Academy of Allergy Asthma & Immunology, Marijuana Cannabis Allergy  
<https://www.aaaai.org/tools-for-the-public/conditions-library/allergies/marijuana-cannabis-allergy>

Can you be allergic to marijuana? <https://www.medicalnewstoday.com/articles/321343>

exposure, ingestion, aeroallergen contact, and skin contact.<sup>7</sup>

### **Occupational Cannabis Exposure and Allergy Risks**

A study attempted to explore the potential for allergic health risks of occupational exposure to cannabis among Belgian Police Personnel. It suggests the importance of wearing protective clothing during cannabis exposure.<sup>8</sup>

### **Some People Have a Hypersensitivity to Marijuana That Is Similar to Hypersensitivity to Other Chemicals**

Hypersensitivity to marijuana and preparations of Cannabis sativa, has been reported since 1971. Symptoms usually correspond with route of exposure, ranging in severity from mild to life-threatening.<sup>9</sup>

Both active and passive exposure may lead to a cannabis sensitization and/or allergy. Cannabis allergy can vary from mild to life-threatening reactions.<sup>10</sup>

There is also a condition called Multiple Chemical Sensitivity (MCS) that is an acquired multifactorial syndrome characterized by a recurrent set of debilitating symptoms. The symptoms of this disorder are reported to be induced by environmental chemicals at doses far below those

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<sup>7</sup> An emerging allergen: Cannabis sativa allergy in a climate of recent legalization, Allergy, Asthma & Clinical Immunology, Published: 26 June 2020, volume 16, Article number: 53 (2020) <https://link.springer.com/article/10.1186/s13223-020-00447-9>

<sup>8</sup> Occupational cannabis exposure and allergy risks, BMJ Journals: Occupational & Environmental Medicine Occupational & Environmental Medicine, Home Archive Volume 76, Issue 2 <https://oem.bmj.com/content/76/2/78.full>  
Source <https://www.righttobreathecannabisfreeoregon.org/>

<sup>9</sup> An emerging allergen: Cannabis sativa allergy in a climate of recent legalization, Allergy, Asthma & Clinical Immunology, Published: 26 June 2020, volume 16, Article number: 53 (2020) <https://link.springer.com/article/10.1186/s13223-020-00447-9>

Cannabis Hypersensitivity Prevalence and Presentation – A Survey-based Study of an Allergic Adult Population in a Toronto Clinic at Onset of Canadian Legalization of Recreational Marijuana [https://www.jacionline.org/article/S0091-6749\(19\)32218-3/fulltext#:~:text=Hypersensitivity%20to%20marijuana%2C%20preparations%20of,non%2Dspecific%20lipid%20transfer%20proteins.](https://www.jacionline.org/article/S0091-6749(19)32218-3/fulltext#:~:text=Hypersensitivity%20to%20marijuana%2C%20preparations%20of,non%2Dspecific%20lipid%20transfer%20proteins.)

<https://www.ctvnews.ca/health/woman-with-chemical-sensitivities-chose-medically-assisted-death-after-failed-bid-to-get-better-housing-1.5860579>

<sup>10</sup> Cannabis Allergy: What do We Know Anno 2015, Archivum Immunologiae et Therapiae Experimentalis volume 63, pages327–332 (2015), Article Review Published: 16 July 2015, <https://link.springer.com/article/10.1007/s00005-015-0352-z>

usually harmful to most persons. In the last few decades MCS has received considerable scientific and governmental attention in light of the many persons reporting this illness.

Its symptoms include hypersensitivity to the smell of certain chemicals, nausea, dizziness, headache, upper respiratory discomfort, runny eyes, chest and throat pain, arthralgia, dyspepsia, fatigue, lack of concentration, memory difficulties, depression, anxiety, mood disruption, and a range of other cognitive and psychological disturbances. The removal from the environment of the offending agents frequently mitigates the experienced symptoms.<sup>11</sup>

## **Conclusion**

Significant exposure to cannabis can elicit marked respiratory and dermatologic allergic reactions requiring proper diagnosis and treatment. Additionally, contaminants such as pesticides or mold related to cannabis production, handling, and/or use may cause adverse reactions of a non-allergic nature.<sup>12</sup>

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<sup>11</sup> Multiple Chemical Sensitivity, Gesualdo M. Zucco, et. al, Brain Sci. 2022 Jan; 12(1): 46., Published online 2021 Dec 29. doi: 10.3390/brainsci12010046, PMID: 35053790, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8773480/>

<sup>12</sup> “Allergic Reactions to Legalized Marijuana Use in Colorado.” International Journal of Mental Health and Addiction volume 16, pages 801–805 (2018), Clinical Case Studies Published: 02 May 2018. <https://link.springer.com/article/10.1007/s11469-018-9924-6>