



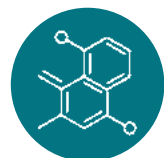
Allergies and Occupational Asthma in Cannabis Production

Workers in the cannabis production industry can develop allergies and occupational asthma. There are many hazards that have been identified in the cannabis cultivation and production industry that the workers are exposed to. Workers are exposed to hazards during all the stages of cannabis cultivation.

Hazards and Exposures



Mould



Ammonia compounds



Occupational Asthma



Dermatitis



UV light



Noise



Fertilizers



Ergo Hazards (awkward posture, etc)



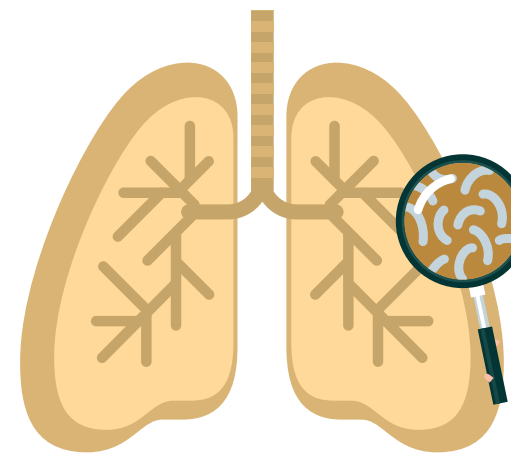
Sensitization



Reducing Airborne Dust and Sources of Occupational Asthma

Nanoparticles and other asthma-causing substances such as mould, pesticides, ozone, cleaning chemicals, and soil components like diatomaceous earth. Work procedures to reduce airborne dust (e.g., high-efficiency particulate air-filtered vacuuming rather than dry sweeping)

Dust Generation and the Possible Sources of Occupational Asthma



Cannabis work environments can lead to various sources of irritant and sensitization type exposures. The process of growing Cannabis includes the use of fertilizers and pesticides for example as well as exposures to ozone and diatomaceous earth. There are various other workplace chemicals which are needed to keep the growth operations ideal for cannabis such as increase in carbon dioxide to optimize conditions, cleaning requirements regulated by the Pharmaceutical industry, i.e. cleaning chemicals.

There are various processes in Cannabis Growth and grooming which can lead to dust generation. These processes include but are not limited to:



Chopping



Grinding



Sifting



Trimming



Weighing



Packing



Cleaning



Workplace Controls to Help Protect Workers

Elimination/Substitution

- The most effective exposure control is to eliminate or substitute the exposure with a less hazardous option, but this may not be a possible

Engineering Controls

- Local Exhaust Ventilation to help control airborne exposures to dusts, chemical mists and vapours

Work Practice Controls

- Work procedures to reduce airborne dust e.g., high-efficiency particulate air-filtered vacuuming rather than dry sweeping and utilizing wet methods to clean up dust.

Administrative Controls

- Develop and apply a comprehensive safety and health program that addresses:
 - Hazard recognition inclusive of noise monitoring
 - Avoidance of unsafe conditions.
 - Proper use of equipment.
- Implement a medical surveillance program to monitor the health of their workers.
- Implement a Hearing conservation program as equipment utilized in the workplace can induce high levels of noise exposure
- Training on the Hazards in cannabis production workplaces and the Personal Protective Equipment (inclusive of Donning and Doffing procedures)
- Employers should establish a response protocol should an anaphylactic reaction occur in the workplace

Personal Protective Equipment



N95 or N100 Mask



Seek medical attention for any symptoms



Impervious Coverall



Protective Gloves

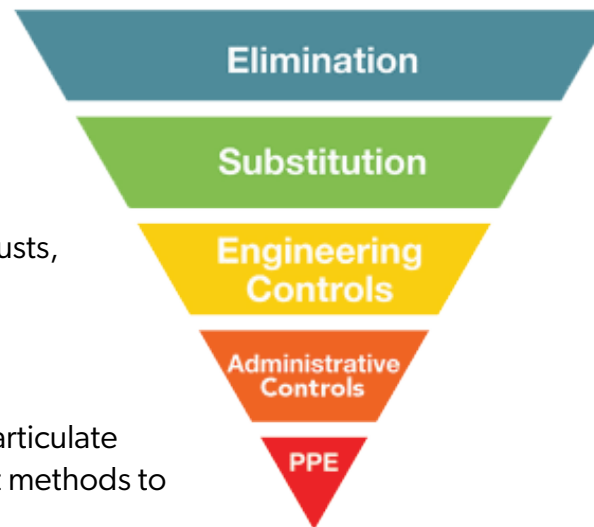


UV Glasses



Hearing Protection

HIERARCHY OF CONTROLS



Workers at Risk

Worker Symptoms

Train workers to recognize signs and symptoms of occupational allergy (e.g., rhinitis, conjunctivitis, asthma, and urticaria; particularly if new-onset or worse at work)
Anaphylactic Shock is possible, consider including an epi-pen in the first aid kit.

Concluding Remarks

Currently, there is no standard test to diagnose cannabis allergy. Individuals should work with an allergist to further understand the specific cause of their symptoms. (Niosh, King et al. 2023)

Case Report: [Fatal Occupational Asthma in Cannabis Production](#)

