

# Indoor Marijuana Grow Operations Pose Health Threat

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DENVER —

## *Mold Most Significant Contaminant*

Houses and other buildings used to grow marijuana indoors contain high levels of [mold](#), which could pose a health threat to residents living there and law enforcement agents investigating them, according to new research from National Jewish Health. Industrial hygienist John Martyny, PhD, led a team that evaluated potential hazards including mold, pesticides, fertilizers, carbon dioxide, carbon monoxide, and THC, the psychoactive chemical in marijuana.

The report was funded by the US Department of Justice and designed to provide advice about precautions and protective equipment law enforcement agents should wear when investigating indoor marijuana grow operations. Dr. Martyny announced results of the study Monday, September 10, at a press conference.

“The combination of warm temperatures and high humidity found in many indoor marijuana grow operations can fuel extensive mold growth,” said Dr. Martyny. “Airborne levels of mold spores that we found inside these structures may subject the occupants, emergency personnel and other individuals to significant health hazards, especially [allergies](#), [asthma](#), [hypersensitivity pneumonitis](#) and other respiratory diseases.”

Dr. Martyny and his team accompanied law enforcement agents investigating 30 marijuana grow operations, each containing between 11 and 670 plants. Because grow operations are often concealed in residential properties to evade law enforcement and/or thieves, they are not designed for extensive greenhouse-type operations, especially lacking in ventilation and proper electrical wiring.

Mold is considered to be potentially hazardous when indoor spore concentrations are 10 times higher than outdoor concentrations. Martyny’s team found such levels in about 60 percent of the marijuana grow operations. In some cases the levels were more than 100 times the outdoor levels.

Extensive and poorly maintained wiring for grow lights, combined with ongoing irrigation of the plants, presented a potential hazard of electrical shock in several of the grow operations, said Dr. Martyny. While other contaminants pose theoretical hazards, the researchers did not find dangerous levels of THC, carbon dioxide, carbon monoxide, pesticides or fertilizers in the grow houses.

Dr. Martyny recommended that initial responders to grow operations should wear gloves, goggles, N-95 respiratory masks, and water-resistant, rubber-soled boots. Agents intending to stay inside for extensive periods should also wear protective clothing and more substantial respirators.

Several years ago, Dr. Martyny conducted [similar evaluations of clandestine methamphetamine laboratories](#) and discovered high levels of several toxic substances including hydrochloric acid and methamphetamine.

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## Media Contacts

Our team is available to arrange interviews, discuss events and story ideas.

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