

# Meth Labs: An Environmental Hazard

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Crank. Crystal. White Crunch. Devil Dust. Sky Rocks. Junk. These represent just a few of the slang names for methamphetamine. In fact, the Florida Based Koch Crime Institute lists more than 300 nicknames for this extremely dangerous drug. Many more problems are associated with the use and manufacture of methamphetamines, often affecting unsuspecting people. Methamphetamines belong high on the list of emerging public health problems that should seriously concern local health boards and public health professionals in the state.

The individual and societal devastation that results from the use of methamphetamines or “meth” is unfortunately becoming well known. What is less well known is that people who have never used meth and never intend to, may eventually find themselves suffering – even seriously injured – from involuntary exposure to the toxic residue left over from manufacturing the powerful drug. That’s because meth labs are proliferating around Montana, both in cities and in rural areas, leaving dangerous waste products in their wake.

The number of meth labs found in the state increased 269 percent between fiscal years 2000 and 2002, from 33 to 122 labs, according to Mark Long, narcotics chief at the Montana Department of Justice. The state’s costs for getting those labs cleaned up by a professional hazardous waste disposal team went from \$235,000 in 2000 to \$1,005,000 in 2002.

The problem, however, is that hazardous materials personnel are not responsible for cleaning up all the invisible residues that result from the chemical manufacturing of meth. That task is left to the owner of the property where the lab was found, or is simply left unaddressed.

Meth is relatively easy to make, using readily available household and farm chemicals, such as household cleaners, lye, acetone and anhydrous ammonia. The meth-cooking process, often combining several of these chemicals, can create poisonous gases, liquids and solids that linger in the residences, motel rooms and vehicles that have served as meth labs. Many of these substances threaten both human health and the natural environment.

According to the Koch Crime Institute, every pound of meth produced leaves six pounds of toxic by-products that the meth cook usually dumps down sinks, drains or toilets. Meth waste has also been found poured onto the ground, in pits or into rivers and streams.

Some of the chemicals don't break down naturally and persist in the environment for many years. .

Some meth ingredients and by-products are explosive. One-fifth of the more than 1,600 meth labs raided nationally in 1998 were discovered because of an accidental explosion. Other labs get turned in because neighbors smell strong odors from gases the labs produce.

Toxic gases and liquids produced by the drug manufacturing process commonly soak into fabrics and porous surfaces, such as countertops, carpets, walls, ceilings, drapes, furniture and clothing. Meth waste can also collect in plumbing such as drains, traps and septic tanks. Contaminated septic systems may leach toxins into the groundwater. Chemicals have also been found in ventilation systems, redistributing toxic gases and dust when heating and cooling systems are turned on.

Future occupants of the apartments, mobile homes, motel rooms or rental cars once used as meth labs may be unwittingly exposed to poisonous residues that haven't been properly cleaned up. Usually they don't receive any advance warning that they're going to be entering or using a former meth lab. They may not know anything is wrong until they start suffering from symptoms of exposure to the meth waste residues.

Headaches, burning eyes, nausea and vomiting may be the initial symptoms of exposure. Longer-term exposure to meth residues can cause burns or lead to mental impairment, permanent brain damage, cancer, or breakdown of the mucous membranes in the eyes and lungs. Even small doses of some chemical by-products, such as phosphene gas, can be lethal to people and pets.

As the number of meth labs in Montana increase, the public health concerns resulting from the manufacture of meth are becoming a similarly increasing problem for local health departments in both urban and rural communities. This is an issue that needs the attention of policy makers and local boards of health. The health threats caused by the residues from meth production not only affect the unsuspecting public, but can cause significant problems for realtors, hotel and motel owners, landlords, farmers and other business owners.

During the past several years, Montana has dedicated significant resources to the investigation and breaking down of meth labs and disposal of chemicals found at the sites. However, no resources have been dedicated to dealing with the invisible residues and waste products that remain after a meth lab is discovered. Outside of the initial cleanup, there are no mechanisms in place to insure the site has been made safe for subsequent occupants. Furthermore, no systems are in place to assist property owners who are left with these contaminated sites.

Other states are struggling with these issues as well. Although there are no simple solutions, some of the approaches states have taken to minimize public health threats include producing guidelines for clean-up, establishing standards for monitoring residue levels, or maintaining government programs to oversee and regulate clean-up.

Following passage of Senate Joint Resolution 11 by the 2003 Montana Legislature, the Interim Committee on Children, Families, Health and Human Services was charged with addressing drug and alcohol problems in the state. While much of the committee's work may focus on drug and alcohol users, this is perhaps the best opportunity to call attention to the public health impact associated with the growing meth problem in our state. To date, efforts by state agencies to address this problem have been largely ineffective.

Boards of health should speak up on these issues and urge legislative action to address this growing public health problem. Some sort of statewide program needs to be authorized and funded in order to protect those victimized by this insidious problem in our communities. The public health consequences and risks that remain after a lab is dismantled are too significant to overlook any longer.

For information on the Interim Committee studying drug and alcohol issues, contact Susan Fox at Legislative Services, 444-3064.