



Bureau of Environmental Health and Radiation Protection

“Protect and improve the health of all Ohioans by preventing disease, promoting good health and assuring access to quality care.”

Meth Lab Cleanup

ODH best-practice guidance document

The Local Health District Responsibility

Ohio’s local health districts have no legal mandate to address meth labs. However, local health departments often serve as contacts and sources of information for concerned residents, fire and EMS-EMA officials, law enforcement agencies, child protection services and even real estate representatives. Often these above-mentioned sources ask the local health department to provide cleanup guidance and/or attest to the safety of re-occupancy of a home or a room where a meth lab operated. Local governmental agencies can address cleanup of these sites under their local building code laws and/or the health department could use their authority to require the cleanup of former meth labs under their public health nuisance laws.

In December 2007, the Methamphetamine Remediation Research Act (Public Law 110-143) was passed, which directed the U.S. EPA to establish voluntary guidelines for the remediation of former meth labs based on the best currently available scientific knowledge. This document provides voluntary cleanup guidelines to homeowners, cleanup contractors, industrial hygienists, policy makers and others involved in meth lab cleanup. However, some states have established their own cleanup standards and cleanup numbers and some certify cleanup contractors.

Meth lab hazards:

Studies by the national research centers and public health agencies demonstrate that active meth “cooks” pose an acute, immediate danger to life and health (IDLH) hazard through chemical exposures and the

risk of fire or explosion to the “cookers” and others in the structure at the time of the cook. While there is considerable scientific evidence of the threat posed by the active meth cook, there is very little research available about the public health threat, acute or chronic, posed by the methamphetamine residuals in indoor environments in former meth labs homes, motel rooms and other commercial properties.

Meth was traditionally manufactured or cooked using a stovetop or portable burner and included a lot of chemicals and equipment. In \approx 2009, the highly-portable “one-pot shake and bake” cooking method was introduced, where a burner was no longer needed and the meth could be “cold-cooked” in a plastic 2-liter pop or larger sports drink bottles. This new method significantly decreased the amount of chemicals, equipment and time needed to make meth. * To view a listing of some of the chemicals used to make meth, visit [Meth – A Public Health Issue](#) However, whether using a traditional kitchen cook or the one-pot method, it is during the active cook process when it is most dangerous to the meth cooker and anyone near the cook.

What is clean? What is safe? How do you make these determinations?

The following bulleted points are considerations public health officials must take into account when asked the above questions:

No National Standards

There are no national standards, no widely- embraced rules, regulations or

numbers to guide property assessment and cleanup of former meth labs.

Chemicals you would expect to find

Most of the chemicals used to make meth are volatile organic compounds (VOCs) that volatilize (turn from liquid to gas) and have relatively short half-lives (often measured in hours) in the environment. Research has identified that the only chemical of concern left over from a meth cook are the methamphetamine residuals.

No two meth labs are alike

The traditional kitchen cook, which spreads meth vapor residue throughout a room, is much different than the self-contained and mobile one-pot shake and bake. Also, where did the cook take place (kitchen-basement- shed- garage- porch)?

Meth lab cleanups, as required by some states, are not cheap

Experience in Oregon indicates average cleanup costs of \$6,500/1,000 ft² of property with an additional cost of an up-front assessment of \$1,400.

What are other states doing?

As of March 2013, 25 states require or recommend former meth labs (methamphetamine residuals) be cleaned to standards ranging from 0.05 µg/100 cm² to 1.5 µg/100 cm². The Ohio Department of Health (ODH) suggests there are problems with establishing cleanup numbers that are derived from the detection limits of the analytical equipment used and not demonstrated health-based cleanup numbers. However, California's Department of Toxic Substances Control (DTSC) announced that it had calculated a health-based remediation standard for meth of 1.5 µg/100 cm².

Data gaps and residual risk – What we still need to find out

- Is post-cook meth residue a public health hazard?
- Does "sample-able meth" from a

material indicate human exposures to meth?

Health Risk Assessments:

- Is meth residue on surfaces/in materials mobile and available to people through ingestion, inhalation or dermal contact?
- What is the out-migrating behavior of meth residue from various materials, e.g. through new paint?
- What are the health-based standards for starting and stopping a cleanup, considering a variety of building materials?
- What are the sampling methods and interpretation suited to variety of materials?
- What are the differences between a traditional stovetop cook versus a one-pot shake and bake cook?
- Are there any studies to demonstrate the distribution of meth residuals from a one-pot cook?

What is currently going on in Ohio?

Created in February of 2006, Ohio Senate Bill 53 regulated the availability of pseudoephedrine, restricting it to behind the counter sales and limited quantities. This was followed by significant decreases in the number of home meth lab busts by the Ohio Bureau of Criminal Investigation (BCI) in 2006 and 2007.

By 2009, the new one-pot shake and bake method of manufacturing meth, designed to get around laws restricting the sale of the ingredients needed to make meth, started spreading across the country. In federal fiscal year 2013, Ohio's BCI seized just under 1000 labs in Ohio. The one-pot shake and bake method accounted for 90% to 95% of the labs seized.

The one-pot method is extremely dangerous. If the bottle is shaken the wrong way, if any oxygen gets inside of it, or if the cap is loosened too quickly, the bottle can explode into a fireball.

ODH Meth Lab Cleanup Guidance

ODH continues to support process-based (isolate and contain) cleanup as the best-practice for cleaning former meth lab sites in Ohio. The goal of this simple, anyone-can-do guidance is to eliminate the exposure to the former meth lab contamination by reducing and isolating any residual meth, the identified concern of former meth labs.

Conduct a rigorous meth lab cleanup

- Ventilate
- Remove and discard all carpet, furniture, drapes (all porous materials) and low-value contents
- HEPA vacuum to remove some of the meth from rough, porous surfaces
- With a strong surfactant (detergent), wash x2 to prep for priming/sealing and painting (wash down everything from ceiling to floor -- see page 14-15 of the EPA [Voluntary Guidelines for Methamphetamine Laboratory Cleanup](#))
- Prime/seal and paint x2 from ceiling to floor (use an oil-based paint or a high-gloss latex provides a tough top cover/shell)
- Wash/clean HVAC heating/cooling devices and duct work
- Wash high-value contents if possible

You may not be able to get rid of all the meth residues, but can get rid of most of it. Three simple rules should be followed:

- **Ventilate, clean and rinse**
- **When in doubt, throw it out**
- **Prime, paint and seal x2 (isolate and contain)**

References:

ASTHO Issue Brief: Cleaning-up Clandestine Methamphetamine labs: The Role of State Public Health Agencies. June 2005.

Minnesota Department of Health, Clandestine Drug Labs in Minnesota: Health, Safety, and Remediation. March 2004.

Minnesota Department of Health. Meth Users: Signs, Symptoms, and Health Effects. 2004.
www.health.state.mn.us/divs/eh/meth/index.html

U.S. EPA [Voluntary Guidelines for Methamphetamine Laboratory Cleanup](#)
March 2013 rev.

Where Can I Get More Information?

Ohio Department of Health
Bureau of Environmental Health and Radiation Protection
Radiological Health and Safety Section
246 N. High Street
Columbus, Ohio 43215
Phone: (614) 644-2727

