Bureau of Environmental Health
Health Assessment Section

Methamphetamine "Meth"
A Public Health Issue

Meth: A Public Health Issue

Methamphetamine (meth) use and production pose many threats to public health. Meth is a highly addictive man-made drug that can be smoked, snorted, injected or eaten. Meth use increases the heart rate and blood pressure to dangerously high levels and long-term meth use can lead to brain and liver damage, stroke, coma and death.

Meth is not only a health threat to the individuals who use it, it is a threat to the children living in or near meth labs that are exposed to the risk of fire, explosion and toxic chemicals. The chemicals that are used to make meth threaten a child's still-developing nervous and reproductive systems, as well as other organs and body systems. Other health hazards children are exposed to in these chaotic environments may include abuse, neglect and unsanitary living conditions, as well as access to weapons and unguarded meth that is lying around.

Meth's Toxic Chemicals and Environmental Hazards

Found in counties across the state of Ohio, illegal labs produce meth using over-the-counter drugs and common household items. Recipes to make meth can be found online and include common items such as ephedrine or pseudoephedrine (cold medicines); rubbing or isopropyl alcohol; ammonia; lithium (batteries); sulfuric acid/sodium hydroxide (drain cleaners); ether (engine starter); toluene (brake cleaner); and other toxic chemicals.

Meth was traditionally manufactured or "cooked" using a stovetop or portable burner. In 2009, the highly-portable "one-pot shake and bake" cooking method was introduced, where a stove/burner was no longer needed and the meth could be cold "cooked" in a plastic 2-liter pop or larger sports drink bottles. However, whether using a traditional stovetop kitchen cook or the one-pot method, it is during this "cooking" process where there is an acute, immediate danger to life and health (IDLH) hazard posed to the meth cooker and anyone near where the meth is being cooked.

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 meth residues left behind from a former stovetop cook. There is no research on what (if any) meth residuals are left behind from the one-pot cook.

Meth Lab Cleanup:
A 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.

National Guidelines:

In December 2007, the Methamphetamine Remediation Research Act (Public Law 110-143) was passed, which directed EPA to establish voluntary guidelines for the remediation of former meth labs based on the best currently available scientific knowledge. In August of 2009, the U.S. EPA published *Voluntary Guidelines for Methamphetamine Laboratory Cleanup* (March 2013 revision).

State Guidelines:

ODH continues to support a process-based cleanup as the best-practice for cleaning former meth lab sites in Ohio. The goal of this simple cleanup guidance is to eliminate the exposure to the former meth lab contamination by reducing and isolating any residual meth, the identified chemical of concern of former meth labs. To view a copy of the meth lab cleanup guidance document, visit the ODH Health Assessment Section webpage, Chemical Fact Sheets section and select Meth Lab Cleanup.

Where can you get more information?

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