



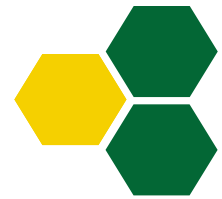
CLEANING UP DRUG-IMPACTED DWELLINGS

A Guide for Local Health Departments



Introduction

Providing local public health professionals with guidance on effective cleanup of drug-impacted dwellings



This toolkit is designed to help local health departments address residual contamination and concerns with dwellings impacted by the production of illicit drugs such as **meth** (methamphetamine) and **synthetic opioids**, such as **fentanyl** and **carfentanyl**.

Drug Residues are Found in Clandestine Labs Across Wisconsin

Meth is often made illegally in private, makeshift laboratories. These private locations, known by law enforcement as “**clandestine labs**,” have been found in many locations across Wisconsin, including rural and urban homes, hotels, and vehicles. Widespread distribution and misuse of synthetic opioids, such as fentanyl, have raised concerns over finding hazardous residues of these substances at places such as illegal drug manufacturing and drug cutting operations (e.g., “pill mills”).

The Public Health Role

Law enforcement and hazardous materials (HazMat) teams discover, raid, and dismantle labs and distribution operations, taking care of most of the hazards. The Environmental Protection Agency (EPA) treats the chemicals the HazMat teams remove as hazardous waste. Afterwards, local health departments often evaluate the property to identify any environmental problems before it is declared suitable for reentry.

A look inside

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Shutting Down a Drug Lab in 3 Steps



1. Law enforcement responds.

- Conducts investigation, raid, arrests, and seizes evidence.
- Notifies child protective services if children are involved.
- Works with local health officer to placard and evacuate dwelling, if needed.
Note: Check with your local law enforcement agencies to ensure you are contacted about drug lab seizures.



2. HazMat team responds.

- Removes containers of hazardous materials and tests indoor air quality.
- Opens windows to ventilate the property, if needed.
Note: In this case, the building should be ventilated for three to five days as a precaution before health officials enter.



3. Local health department responds.

- Assesses the property for risks from chemicals remaining on items and surfaces.
- Issues abatement (cleanup) orders to ensure the property is safe.
- Provides health education on the risks of illicit drug use on social media and other public communication platforms.

Meth and Fentanyl

A Quick Primer



Meth

Methamphetamine, commonly referred to as **meth**, is a powerful, highly addictive substance that affects the brain and body. It falls in the category of drugs known as **stimulants**. Meth is commonly sold in crystal or powder form. It can be injected, smoked, snorted, or taken orally. It is less expensive and has a longer euphoric effect than other illegal stimulants.

Meth is sometimes mixed with other substances. These other substances include cannabis, opioids such as heroin or fentanyl, cocaine, and ecstasy.

Key points

- State laws enacted in the mid-2000s restricted access to substances used to produce meth in home labs. Yet, in recent years, Wisconsin has seen a new surge in meth use, which has spread across the state.
- Today, the majority of the meth available in Wisconsin is produced in Mexico and transported here by drug-trafficking organizations.

Making meth

There are two common methods for making meth, the open-stove method and the one-pot method. The **open-stove** method releases gases in an open space and could impact more rooms in and around the cooking area. The **one-pot or “shake and bake”** method is dangerous because it creates gases and pressure in a closed container, which could cause explosions or fires. However, after the seizure of the meth lab, there is usually less contamination with this method as the chemicals were enclosed (as long as there was no fire or explosion). The [U.S. Environmental Protection Agency \(EPA\) Voluntary Guidelines Appendix A](#) shares unique hazards and variations of these meth production methods.

What's in meth?

Methamphetamine is often made from **pseudoephedrine**, an over-the-counter cold medicine sold under several brands. But meth made in illegal drug labs can also contain substances that appear in paint thinner, acetone (also found in nail polish remover), ammonia (also found in cleaning fluid), iodine crystals, red phosphorus (also in pesticides), and lithium (also found in batteries). Certain chemicals can be harmful to breathe and may cause fires or explosions when used incorrectly.

Real Talks Wisconsin

It takes all of us to help prevent
and reduce substance use.

Encourage everyone to have #RealTalks

The DHS offers shareable messaging on substance use prevention, including social media, toolkits, and other educational materials. Visit DHS's [Real Talks campaign website](#) for more information.

Fentanyl

Pharmaceutical fentanyl is a **synthetic opioid**, commonly prescribed for treating severe pain, such as that experienced in advanced cancer. It is 50 to 100 times the potency of morphine. It is prescribed in the form of transdermal patches or lozenges and can be diverted for illegal use and consumption in the United States.

However, most recent cases of fentanyl-related harm, overdose, and death in the U.S. are linked to illegally obtained fentanyl. It is sold through illegal drug markets for its heroin-like effect. It is often mixed with heroin, cocaine, and meth as a combination product—with or without the user's knowledge—to increase its euphoric effects.

Key points

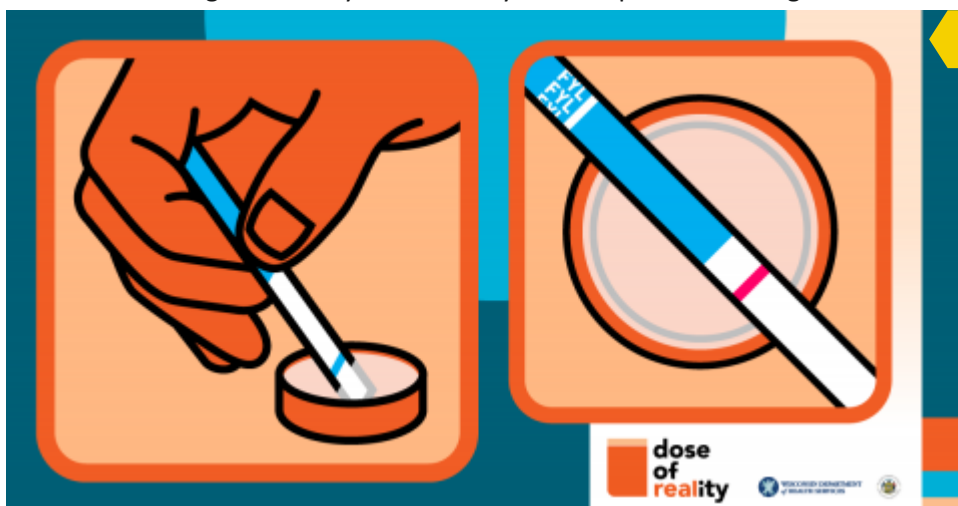
- Fentanyl and similar synthetic opioids are more potent than other opioids and have been driving the increase in overdose deaths.
- Fentanyl is being found in all types of drugs including stimulants (cocaine and meth) and opioids. It is being pressed into pills and mixed into other drugs. A person may think they are using one substance, but they are instead using a substance mixed with fentanyl.
- Fentanyl test strips are legal in Wisconsin and available for purchase. Fentanyl test strips are also being distributed for free at some pharmacies, syringe service providers, and opioid treatment programs. People are encouraged to always use fentanyl test strips before using a substance.



Fentanyl is hard to detect, and dangerous!

You can't see it, taste it, or smell it. Two milligrams— as little as several grains of salt—is enough to kill someone.

Photo source: United States Drug Enforcement Administration



Fentanyl test strips are legal in Wisconsin.

As part of an awareness campaign, you can promote the use of fentanyl test strips by sharing [partner resources](#) from DHS's "[Dose of Reality](#)" [campaign website](#).

Fentanyl sites

Unlike meth labs, fentanyl production labs are very rare in the U.S. However, fentanyl cutting and pill mill operations are frequently encountered by law enforcement. Some synthetic analogs of fentanyl, like **carfentanyl**, that have been observed at these scenes are 10,000 times the potency of morphine.

Local health officials should take care when visible unknown powder is observed at a site; don't proceed unless appropriate personal protective equipment (PPE) and naloxone (e.g., NARCAN®) is available for use on scene. Narcan may be purchased over the counter at pharmacies in Wisconsin.

Note: Local health officials should elevate a fentanyl site to HazMat response in situations where large amounts of unknown powder are observed on scene.

Supporting Partners

Partner agencies can provide support and guidance before, during, and after your visit



Corporation counsel (corp counsel): You should contact your local corp counsel early in the process, because they can tell you if there are any local ordinances specific to meth labs and procedures for gathering evidence. They can also share any other local considerations relevant to your environmental assessment or issue special inspection warrants if that is necessary to gain access to the lab.

Social services: Reach out to your child protective services or social service agencies to understand the situation and protocols surrounding children in the drug environment.

Wisconsin Department of Health Services (DHS): DHS has experienced toxicologists and risk assessors on staff to help you in environmental risk assessments. The DHS provides support for meth lab assessments by lending monitoring equipment, answering questions on sampling methods or data analysis, and assisting with a walk-through of the property as needed. [Contact the DHS](#) if you have any questions.

Wisconsin Department of Natural Resources (DNR): DNR Spills Team staff can assist with the assessment and abatement of chemical releases to the environment (soil, surface water). DNR Drinking Water and Groundwater program staff can help with potential private well contamination from clandestine drug lab activities. Finally, DNR Waste Program staff can assist with the proper disposal of hazardous waste generated from site cleanup activities. Contact the [DNR Spills Team](#) for more information.

Wisconsin Department of Safety and Professional Services (DSPS): DSPS staff should be contacted if septic tank contents are thought to be contaminated with chemicals. Tank contents would be tested, and if contaminated, pumped out and the liquid disposed of properly as hazardous waste. Contact your [regional DSPS staff](#).

Wisconsin Department of Trade and Consumer Protection (DATCP): DATCP regulates commercial properties such as hotels and may need to approve cleanup to allow re-occupancy in these spaces.



Steps for a Safe and Successful Inspection

Assess. Abate. Communicate.



Before the inspection
Prepare for a visit

During the inspection
Assess the risk

After the inspection
Abate and communicate

Prepare for a Visit: Connect with Law Enforcement

Gather information

Contact local law enforcement to get a list of chemicals present and items seized by law enforcement (called the “manifest”). The manifest can help determine the type of meth process used (i.e., one-pot or open stove) and [associated chemical hazards](#).

To prepare for your inspection, ask law enforcement about the specific locations of illegal activities and what materials were found in each location. Request police or Division of Criminal Investigation (DCI) reports, pictures, and field testing results as this information will give you a clear understanding of the materials used, the amount of hazardous chemicals that were present, and which areas of the home may have the highest levels of contamination. This will be useful when conducting an environmental assessment.

Plan a safe visit

Visits to places where drugs were made or used should be accompanied by law enforcement in case you experience unexpected encounters with residents or visitors who could cause a safety issue. Law enforcement can also assess for other safety issues and can help evaluate specific areas of the home where materials for meth production were seized as they often were on-site during seizure of the laboratory. Officers may also have some field testing supplies available for any suspected residue (Narcll Test Kit, Ephedrine, etc.) if that may be necessary.

Note: *If law enforcement is not able to join, be sure to go to the site with a colleague and alert law enforcement of your plans.*



Children and other hazards in the drug environment

Although this toolkit focuses on the chemical hazards that may be present in a drug-impacted dwelling, there may be other important hazards to consider in these settings, including children in the drug environment, sanitation issues, structural problems, and electrical hazards. The [National Alliance for Drug Endangered Children](#) has recommendations for children found in drug labs.

Before the inspection
Prepare for a visit

During the inspection
Assess the risk

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Abate and communicate

Prepare for a Visit: Assessment Considerations

Assessing known chemicals

Most chemicals present at the site are not harmful to breathe in. However, some recipes create ammonia (highly concentrated NH_3) and phosphine (PH_3) gas that can be a concern if the property is not ventilated properly. Even short-term exposures to these chemicals in air from an operating meth lab can severely harm the lungs and potentially cause death.

Sometimes ammonia is improperly stored in propane tanks by the meth producer. This can corrode the valves, a serious safety risk, causing a blue or green color on the valve. If found, notify your HazMat team and do **not** touch it.

Tip: Refer to a Safety Data Sheet, or SDS.

The SDS can help with assessing health hazards of known chemicals.



Look out for propane tanks and signs of ammonia:

- ✓ Blue or green corrosion on the brass valve of a propane tank
- ✓ Evidence of tampering with connection threads
- ✓ Ammonia odor around the cylinder or valve

Assessing quantitative and qualitative evidence

As a local health officer, your recommendations can be based on quantitative or qualitative evidence.

Quantitative evidence (sampling)

Using equipment to measure meth on surfaces and ammonia or volatile chemicals in air can be helpful during your on-site assessment. The [U.S. EPA Voluntary Guidelines](#) recommends using $1.5 \mu\text{g}/100\text{cm}^2$ (1.5 micrograms per 100 square centimeters of surface area) of meth residue and $1.0 \text{ ng}/100\text{cm}^2$ (1 nanogram per 100 square centimeters of surface area) of fentanyl residue as health-based screening values.

Qualitative evidence (observations)

Sampling is not always necessary as having data may not change your recommendations. A qualitative assessment of the property, including your visual observations, experience, and law enforcement reports, can provide all the information you need for your assessment. This includes assessing what activities occurred (for example, one-pot cooking method, open stove cooking, smoking, or use of other chemicals) and where in the building they happened. If the property is in poor condition, it may be cost effective to minimize the assessment and order a comprehensive abatement since cleaning costs and repairs would be extensive regardless of whether meth residue is present.



Did you know?

Sometimes the cost of cleanup is more than the cost of inspection.

[Contact DHS](#) for assistance with assessment considerations.

Before the inspection
Prepare for a visit

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Assess the risk

After the inspection
Abate and communicate

Protect yourself

Use appropriate personal protective equipment (PPE) when entering the former lab. The general expectation is that law enforcement will remove containers of hazardous materials and ventilate the building. In those cases, disposable gloves and shoe covers are usually sufficient for entering the building. However, sharp objects may still be around, so do not assume the area is clear of hazards. If you are moving items, you may want to wear puncture-resistant gloves to protect from needles and other hazards. Some local health departments wear half-face respirators for the initial inspection as meth may not be the only drug present. However, if there is a strong odor or other environmental concerns, then you may consider using a third-party contractor to assess and clear the building.

Building inspectors, environmental health staff, and those inspecting the property should take a cautious approach. Do not touch containers of unknown chemicals that may have been missed by law enforcement. Instead, leave the area and notify law enforcement that more work may be needed. If there is any question about the safety of residual odors, monitor for volatile organic compounds (VOCs) and ammonia when entering the lab. [Contact DHS](#) to borrow one of these devices.

PPE may include:

- Disposable gloves
- Puncture-resistant gloves
- Steel toe/shank boots
- Shoe covers
- Half-face respirator



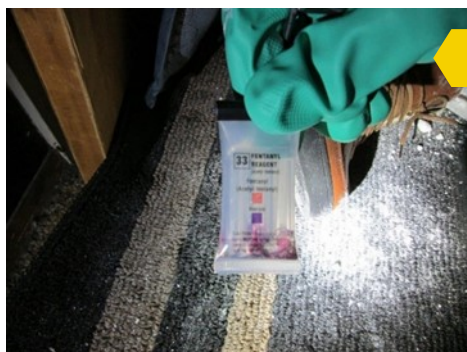
Do not enter the property if monitoring instruments show elevated levels of VOCs or ammonia.

*Note: If you are dealing with a **high production** drug lab, determined by the Division of Criminal Investigation, call DHS for assistance: 608-266-1120.*



Take caution if you see evidence like this!

Do **not** touch or open any closed containers that have unlabeled chemicals, obvious mixtures or residues, or are swollen with gas pressure. If found, immediately leave the room and alert law enforcement. Only those with specialized hazardous waste training should handle these items.



Be wary of unknown powders.

Unknown powder residues should also trigger concern.

Before the inspection
Prepare for a visit

During the inspection
Assess the risk

After the inspection
Abate and communicate

Evaluate Your Findings

Under [Wis. Stat. ch. 254](#), local health officers have the authority to declare a human health hazard and order abatement. There are three common human health hazards from drug production to assess for when evaluating your findings.

Three types of hazards to assess for in drug-impacted dwellings

1. Quantitative and qualitative evidence of drug use and production

Look for evidence of drug residues with a monitoring kit or device to determine residual levels. You can test for drug residues on a variety of surfaces and objects. In most cases, drug residues found on surfaces are not concentrated enough to be harmful, but should still be treated with caution. Finding drug residue is important information for the cleanup evaluation.

You can also document qualitative signs of drug use and production, such as observations of needles and other drug paraphernalia, including suspicious containers or chemicals needed for drug production. Photos can be helpful to identify and communicate areas of concern to individuals performing clean up activities.



Look for drug residues here:

- Hard surfaces (tables and countertops)
- Soft surfaces (carpeting, bedding, and clothing)
- HVAC air return ducts, duct covers, and filters
- Drywall (painted or unpainted)
- Vacuum cleaner bags
- Window blinds



Evidence of meth production for the one-pot method.

Camp fuel is a common ingredient used in meth production.



Before the inspection
Prepare for a visit

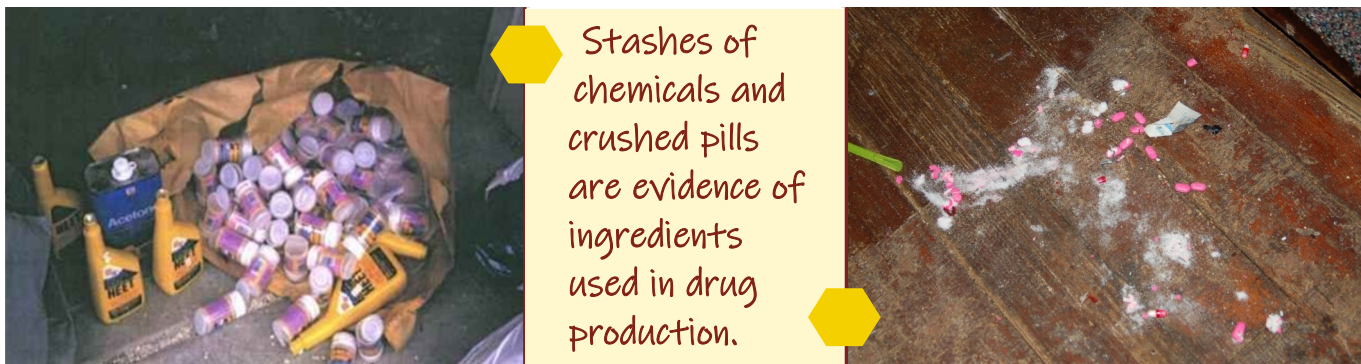
During the inspection
Assess the risk

After the inspection
Abate and communicate

2. Evidence of ingredients and other chemical or biological hazards

There are several classes of chemicals to consider in assessing the property. For meth, these include the parent chemical (pseudoephedrine), inorganic reagents (acids, bases, lithium, iodine, or phosphorous ammonium nitrate, depending upon the recipe), organic solvents such as ether, alcohol, or camp-stove fuel. Review [Appendix C of the U.S. EPA's Voluntary Guidelines](#) for information on chemicals used in various recipes.


In most cases, containers of chemical evidence will have been removed from the property, leaving white powdery residues from spilled acids or bases, reddish stains from iodine or phosphorous, or empty containers and packaging.



Check if [lead-based paint](#) and/or [asbestos](#) is present in the building. If so, these may need to be removed by a [lead certified contractor](#) or an [asbestos certified contractor](#). If there is evidence of biological hazards such as feces and vermin, these should also be addressed in abatement orders.

3. Evidence of physical hazards

Be aware of any containers, broken glass, needles, or drug-related paraphernalia not removed by law enforcement. During the walk-through of the former drug lab, identify any containers or materials that may have been forgotten by HazMat professionals.

 **Do not touch bottles with unknown substances or with mixtures of substances.**

Other common physical hazards found in the drug environment include sanitation issues, structural problems, and electrical hazards such as exposed wires.

This power cord in a flooded basement of a meth lab presents an electrical hazard.



Before the inspection
Prepare for a visit

During the inspection
Assess the risk

After the inspection
Abate and communicate

Abate and Communicate: Cleanup Orders and Raising Public Awareness

Local health professionals make cleanup recommendations based on their findings. In some cases, the only thing needed is a cleaning that includes scrubbing and painting walls and ceilings. In other cases, the contamination is so extensive that the inside of the building needs complete renovation.

Cleanup guidance

DHS has cleanup guidance on pages 13-14 of this document, and the EPA has published [Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup](#). Local health departments' requirements in abatement orders could include having property owners hire private cleanup contractors.

Property owners are responsible for the cleanup and costs. Although owners are able to clean with local health officer approval, they should be aware that some materials can absorb chemicals and may still be dangerous.

Abatement orders

Under [Wis. Stat. ch. 254](#), local health officers have the authority to declare a human health hazard and write abatement orders. Be sure to check with your corp counsel to learn if there are any local ordinances specific to meth labs, or any other local considerations on authority or enforcement. Sample abatement order letters from Wisconsin local health departments are included on page 14.

Hiring Contractors

Abatement orders vary by jurisdiction. Some require property owners to hire crime scene or private cleanup contractors. Others order the responsible party to conduct the cleanup themselves.

Wisconsin does not have a certification process for meth lab cleanup contractors. Depending on the extent of cleanup required, local health departments can order specific cleanup that the owner can follow and complete. In other situations, a contractor may be needed. [EPA's Voluntary Cleanup Guidance](#) recommends hiring a contractor with hazardous waste expertise. This contractor should have, at a minimum, completed the [40-hour HAZWOPER training](#) (OSHA 29 C.F.R. 1910.120). Another option is to find a certified industrial hygienist (CIH) in cleanup operations to consult on the cleanup strategy.

Before the inspection
Prepare for a visit

During the inspection
Assess the risk

After the inspection
Abate and communicate

Sample message map for a drug lab seizure

The following message map can be used to communicate externally regarding a recent drug lab seizure.

Key Message

Supporting Information

On [Insert Date], law enforcement seized a meth lab located at [Insert Location].

We will conduct an investigation to determine whether any human health hazards are present [add with support from the Wisconsin Department of Health Services, if applicable].

Only essential personnel are allowed on the property.

We will issue abatement orders to ensure the property is properly cleaned.

Hazards from making meth could still be on the property and pose a health risk.

Key concerns include exposure to chemicals left on-site that can present acute health effects and risk for fire or explosion.

The public should keep off the property and follow posted signs.

Contact the [Local Health Department] if you have questions about safety.

For more information on the assessment, cleanup, and property release, contact [Local Health Department].

If you or someone you know is struggling with addiction, seek help and support from [Local Support Service] or [Find local [Alliance for Wisconsin Youth](#) coalition that raises awareness on meth use].

Substance use awareness

You can communicate further about the risks associated with illicit drug use and production by publishing a press release or posting social media to raise public awareness.

- Visit DHS's [Dose of Reality](#) and [Real Talks](#) campaigns to promote real talks about the harm of opioid and stimulant use. Some of the partner materials are available in multiple languages.
- Promote the seeking of help. Free and confidential help is available from the Wisconsin Addiction Recovery Helpline by calling 211 or visiting addictionhelpwi.org.
- For assistance with public messaging about substance use disorders, please contact DHS at DHSOpioids@dhs.wisconsin.gov.



Raise awareness on social media.

DHS's Dose of Reality and Real Talks campaigns offer a wide variety of sample social media posts that are free for local health department use.

Cleanup Guidance

Guidelines for cleaning up drug-impacted dwellings



The public health inspection is a key step in determining what is needed to restore a property. In some cases, extensive cleanup and renovation is needed. In other cases, a thorough deep clean followed by a visual assessment and walk-through may be sufficient to return the building to acceptable living conditions. The cleaning procedures outlined in this document should reduce any health hazard risk.

Hard surfaces

Clean all hard surfaces (for example, walls, counters, floors, ceilings) using household cleaning methods. We recommend removing any material that has obvious contamination, such as staining or smells. After cleaning, consider priming and painting walls, floors, and ceilings. Painting seals these surfaces after cleaning.

Soft surfaces

Clean any absorbent materials (for example, carpeting, drapes, clothing, furniture). You may not see the contamination, but these materials can still gather small amounts of drug residues or splattered chemicals. Carpets should be wet-cleaned (shampoo and vacuum) at least twice if they are not being thrown out. Contact your local waste facility for information on how to properly dispose of the materials you are unable to clean. Be sure to dispose of the materials so others will not salvage or re-use them.

Household items

Household items may have become contaminated during the meth cooking process. Remove, double-bag, and properly dispose of any items that are visibly contaminated, especially those with red, brown, or yellow stains. Large appliances such as refrigerators, kitchen ranges, or ovens may have evidence of being used to store or prepare meth. With thorough cleaning, meth and chemical residues can be removed from the hard surfaces of appliances. If the appliance cannot be cleaned, dispose of it as solid waste so other people will not salvage or re-use the material.



What does it mean to “deep clean”?

A deep clean entails thorough scrubbing and the use of cleaning chemicals.

Wear gloves, long sleeves, and eye protection and continue to air out and ventilate the building throughout the cleaning process.

Plumbing

Contact a plumber if a chemical odor is coming from the household plumbing or if drains are clogged. Tell the plumber that the property is a drug-impacted dwelling and share the types and quantities of chemicals that may have been flushed down the drains.

Septic systems

Although the levels are usually not large enough to cause public health concerns or interfere with the treatment system, individual property septic systems can be affected from improper waste disposal of meth chemicals, including volatile organic compounds (VOCs) such as acetone, toluene, and ether.

The amount of chemicals dumped in soil or septic systems are usually not enough to cause environmental damage. If you suspect the septic tank or yard may be contaminated, contact the Department of Safety and Professional Services Private Onsite Wastewater Treatment Systems (POWTS) [district specialists](#) for assistance.

Sump pits

If you suspect case chemicals were dumped into the sump pit (for example, you have observed odors, sheens, or changes in pH), contact the [DNR Spills Team](#).

Soil

A burn pit or an area of distressed vegetation can indicate dumping areas where there may be a need for a small-scale soil cleanup. For assistance with assessing any potential soil contamination, contact the [DNR Spills Team](#).

Heating, ventilation and air conditioning (HVAC)

The heating, ventilation, and air conditioning (HVAC) system should be inspected for breaks and blockages. You should assess all areas and rooms serviced by the HVAC system to determine if the contamination has spread to other areas.

Note: *Test the HVAC air return vent with a screening kit or laboratory-based wipe test to determine whether drug residues could be present in the HVAC system.*

Unless there was a fire or explosion, it is less likely for a one-pot method to produce contamination in the HVAC system since it is an enclosed production method.

An open-stove method produces more steam and gases and resulting residues may impact the HVAC system. [EPA's Voluntary Guidance](#) recommends closing and cleaning the whole HVAC system, including duct work.

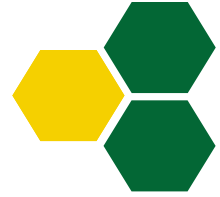
The risk of groundwater contamination is usually low.

In most cases, the risk to groundwater from dumping meth lab waste onto soil or into a septic system is low due to the type and relatively small amounts of chemicals used.

Prioritize locations where meth was cooked. [Research](#) has shown that meth residue is higher where meth is cooked and smoked than where it was just smoked.

Appendix A

Sample abatement and property release orders



The following template abatement and property release orders are available for your use. They are not mandated by DHS to use and can be adjusted to meet your needs.

Tip: Don't forget your corp counsel!

Be sure to finalize any orders with your corp counsel.

Sample abatement order #1

Use this abatement order to send to the property owner if you have specific cleanup requirements you are enclosing or if you are mandating the property owner hires a contractor. This example also mentions proper protection during cleanup that some local health departments have used.

Dear **[Property Owner]**,

An inspection of **[Insert location]** on **[Insert date]** revealed the property is in violation of **[Insert local ordinance if applicable]** and Wis. Stat. ch. 254. The property is considered a human health hazard and needs to be cleaned.

Pursuant to the authority of **[Insert local ordinance if applicable]** and Wis. Stat. ch. 254, you **are hereby ordered to clean the human health hazard [Insert details of hazard if applicable] which render your property a human health hazard by [Date]**. You must **[Insert either "follow the enclosed cleanup requirements" or "hire a reputable cleaning company specializing in methamphetamine cleanup"]**. All units of the dwelling must be cleaned. **[Insert information to be provided to local health department upon completion of cleanup]**. Ensure those entering the location are wearing appropriate personal protective equipment (often called PPE), which may include protective eye glasses, disposable gloves, foot coverings, steel toe boots, or a disposable protective suit.

Should you fail to meet these requirements or refuse to do so, we will take necessary steps to remove the nuisance. Please be aware that pursuant to Wis. Stat. § 254.59(2), and **[Insert local ordinance if applicable]**, the cost incurred by the city to abate the nuisance may be collected as a debt from the owner, occupant or person causing, permitting or maintaining the nuisance; and such costs may be assessed against the real estate as a special charge.

If you have any questions concerning this matter, you may reach me at **[Insert contact information]**.

Sincerely,

[Insert Local Health Officer Name, Title, and Contact Information]

Sample abatement order #2

Use this abatement order to send to the property owner if you have specific cleanup requirements you are detailing.

Dear **[Property Owner]**,

This letter serves as an Order of Abatement for the property located at **[Insert address]**. On **[Insert date]**, the **[Insert agencies involved with inspection]** performed an inspection of the above address. An inspection warrant was obtained to ensure access to the property.

The reason for the inspection was to determine the actions necessary to address known human health hazards after a methamphetamine (meth) laboratory was found at the above location. By using **[Insert name of lab test or test kit and manufacturer]**, we checked for identifiable meth residue. The scanner indicated that there were items in every room of the home that tested positive using the meth detection device.

Due to the hazardous materials and byproducts associated with the process of manufacturing and the use of meth, the property is declared a human health hazard under the Wis. Stat. ch. 254 and **[Insert local ordinance if applicable]**. There are numerous personal items and building components that need to be removed, disposed of and/or cleaned before the buildings can be reoccupied. Those rooms and items are as follows:

[List all cleaning to be done. Example:

BASEMENT

ALL hard surfaces, personal items, and clothing that can be properly washed need to be washed with trisodium phosphate (TSP) and rinsed or properly disposed of by putting them in a dumpster or placed on the curb for regular garbage pickup by the village.

ALL painted walls and ceilings need to be washed with trisodium phosphate rinsed, primed, and repainted.]

Please notify me when the above items have been addressed and we can perform a final inspection of the property to ensure all of the areas have been addressed and corrected. The property cannot be reoccupied until the work in all areas is completed and the Health Department has made a final inspection. You have 30 days from the receipt of this letter to complete the above items.

Since the property is declared a human health hazard under the Wis. Stat. ch. 254 and **[Insert local ordinance if applicable]**, the failure to comply with the order can subject you to the penalties specified in the Wisconsin State Order of Abatement Statute and the **[Insert local ordinance if applicable]**. **[Insert penalties for state and local ordinances if applicable]**.

If you have questions or need further clarification of this order, feel free to contact me at **[Insert contact information]**.

Sincerely,

[Insert Local Health Officer Name, Title, and Contact Information]

Sample property release order #1

Use this property release order to send to the property owner after the cleanup has occurred. This can serve as reassurance for future occupants who have questions about property safety.

Dear **[Property Owner]**,

On **[Insert Date]**, the **[Insert Local Health Department]**, issued an abatement order to address residual contamination from a clandestine, illegal drug laboratory on the property and inside the dwelling at **[Insert address]**. A copy of this abatement order is enclosed.

As the health officer of **[Insert Local Health Department]**, the order was complied with and all work appears to have been completed as there are no obvious hazards. We recommend a Phase I and/or Phase II Environmental investigation if there are further concerns with this property. If you have questions or need further clarification of this order, feel free to contact me at **[Insert contact information]**.

Sincerely,

[Insert Local Health Officer Name, Title, and Contact Information]

Sample property release order #2

Use this property release order to send to the property owner after the cleanup has occurred and you have confirmed that the orders have been fully complied with. This can serve as reassurance for future occupants who have questions about property safety.

Dear **[Property Owner]**,

On **[Insert Date]**, the **[Insert Local Health Department]**, issued an abatement order to address residual contamination from a clandestine, illegal drug laboratory on the property and inside the dwelling at **[Insert address]**. A copy of this abatement order is enclosed.

As the Health Officer of **[Insert Local Health Department]**, I hereby confirm that the requirements of this abatement order have been fully complied with and this property and dwelling now provide a safe living environment for current and future residents. If you have questions or need further clarification of this order, feel free to contact me at **[Insert contact information]**.

Sincerely,

[Insert Local Health Officer Name, Title, and Contact Information]

Appendix B

Frequently Asked Questions



Should we include testing for drug residues as part of an abatement order?

The Department of Health Services (DHS) does not typically recommend testing, but it is promoted by cleanup contractors. We promote assessing the cost of a thorough abatement over the cost of environmental testing. Considerations for property owners, health departments, and contractors include liability concerns, compliance issues, and target cleanliness.

What is the cleanup goal after environmental testing?

We recommend $1.5\mu\text{g}/100\text{cm}^2$ of meth residue, following the voluntary health-based standard promoted by the EPA. We also support the $1.0\text{ ng}/100\text{cm}^2$ of fentanyl or fentanyl analogs recommendation in EPA's Voluntary Guidelines.

What are the options for testing materials?

Cleanup contractors will likely have access to a third-party lab. Screening and testing kits are commercially available but have been shown to have variable performance. The DHS's Equipment Loan Program offers screening instruments for local health department use. See **Appendix C** for more information on these instruments and loan requests.



Meth test kits are available.

While the DHS does not make specific recommendations about commercial test kits, we can help you evaluate the options available to you.

Contact the Equipment Loan Program at DHSEnvHealth@dhs.wi.gov for more information.

Photo source: Wisconsin State Laboratory of Hygiene

What are the risks for first responders?

Although various chemicals are used in making meth, the actual hazards depend on the method used. Some recipes use anhydrous ammonia (highly concentrated NH_3) and iodine, other recipes produce phosphine (PH_3) gas. Even short-term exposures to concentrated ammonia or phosphine in air from an operating meth lab can severely harm the lungs and potentially cause death.

CDC/NIOSH provides a [toolkit for emergency responders](#) on preventing occupational exposure to illicit drugs, including fentanyl. Additionally, first responders should review [Appendix C of the EPA's Voluntary Guidelines](#) for chemical properties associated with meth and use this for selecting PPE.

Should a drug-impacted dwelling be vacated immediately?

It depends. Most often the place is already vacant because the occupants are in jail or staying elsewhere. In those cases the notice could go into effect immediately. Time to vacate could vary depending upon the degree of the hazard and if children or other sensitive occupants live there. The contamination is unlikely to spread if the hazardous containers have been removed, the building has been aired out, and no one is entering or leaving the building. However, you should assess the hazards quickly if there are multiple units involved (as in a hotel or apartment building). A single unit or hotel room may be placarded if it operates on its own HVAC system, allowing the rest of the units to remain occupied during the abatement process.

In general, if there is a hazard that warrants placarding, then the occupants should be ordered to vacate and abatement should occur as soon as possible. Consult your corp counsel with questions about the health officer's placard power.

What if the drug lab is found in a hotel or apartment building?

The main question and concern when dealing with multi-unit dwellings is the HVAC system and contaminated air or VOCs moving to other units. If there is no connection with the HVAC system to other areas then it is unlikely to be a health concern for neighbors. If there is a common HVAC system it should be inspected for breaks and blockages. You should assess all areas and rooms serviced by the HVAC system to determine if the contamination has spread to other areas.

It is less likely for a one-pot method (also known as bottle-lab or "shake and bake") to produce contamination in the HVAC system since it is an enclosed production method (unless there is a fire or explosion). This has not been well studied and more research is needed to understand this method.

An open-stove method produces more steam and gases and the meth residue may impact the HVAC system. EPA's Voluntary Guidance recommends closing and cleaning the whole HVAC system. The National Jewish Hospital conducted a [study of contamination spread](#) where smoking meth occurred; however, meth residue is higher where it is cooked and smoked than just smoked.

I need help. Who can I contact?

DHS has experienced toxicologists and risk assessors on staff to help you with environmental risk assessments. We provide support for environmental site assessments by lending monitoring equipment, answering questions on sampling methods or data analysis, and assisting with a walk-through of the property as needed. [Contact us](#) if you have any questions.

Appendix C

DHS/WSLH Equipment Loan Program Instruments for Potential Use in Drug Impacted Dwelling Assessments



The ability to access needed equipment and training resources can greatly facilitate a health department's investigation of drug-impacted dwellings. Environmental assessment resources are available for loan through the Equipment Loan Program (ELP). The ELP is a DHS and Wisconsin State Laboratory of Hygiene (WSLH) partnership to offer local and tribal health professionals environmental assessment equipment and services for no associated fee. Available assessment equipment include the following:



RAE Systems ppbRAE 3000 Photoionization Detector provides real-time data suitable for lower concentrations of volatile organic compounds (VOCs), present in such products as solvents, paints, glues, stored fuels, disinfectants, wood preservatives and air fresheners. It is useful for quickly screening areas for the presence of VOCs. One potential application may include cases where solvent-based materials are used in a building and are creating discomfort for occupants. Research has suggested that building occupants exposed to greater than 1 ppm may experience discomfort in the form of eye, nose and throat irritation, headaches, loss of coordination and nausea. This monitor can detect VOCs as low as 1.0 ppb (full range is 0 to 9,999 ppb) with automatic data logging every 10 seconds. This monitor can also be set to direct read for other gases of interest such as diesel fuel, acetaldehyde, benzene, and many more.



RAE Systems MultiRAE and MultiRAE Pro 5-Gas combines a photoionization detector for total VOC monitoring with the standard four gases of a confined space monitor (O_2 , LEL, CO and H_2S) in one compact monitor with sampling pump. It is easy to operate and primarily intended for indoor screening of buildings and basements with unknown odor complaints. Datalogging can be programmed for reading intervals between 10 and 240 seconds. The MultiRAE with PID can detect total VOCs as low as 0.1 ppm (MultiRAE) and 10 ppb (MultiRAE Pro), and CO and H_2S down to 1 ppm, with standard resolutions for O_2 (0.1%) and LEL (1%). The VOC setting for both monitors can also be set to direct read for other gases of interest such as diesel fuel, acetaldehyde, benzene and many more. The MultiRAE Pro also monitors for gamma radiation. One instrument of each model is currently available for loan.



GrayWolf Indoor Air Quality Monitor provides real-time data for common indoor air quality parameters along with multi-day data logging capabilities. Our GrayWolf's current array of sensors detect temperature (-10 to 160 degrees F), humidity (0 to 100%), ammonia (0.1 to 100.0 ppm), nitrogen dioxide (0.1 to 30.00 ppm), ozone (0.01 to 1.00 ppm), phosphine (0.01 to 5.00 ppm), fluorine (0.01 to 1.00 ppm), and hydrogen cyanide (0.1 to 30.0 ppm). One instrument is available for loan.



Lumex RA-915M and Light 915 Portable Mercury Vapor Analyzers measure airborne mercury vapor levels following mercury spills. Airborne exposure levels for mercury should be as low as 1 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) in community settings and $3 \mu\text{g}/\text{m}^3$ in commercial settings, compared to the occupational exposure guideline of $25 \mu\text{g}/\text{m}^3$. Bagged, contaminated articles should have vapor levels less than $10 \mu\text{g}/\text{m}^3$. The Lumex RA-915M is very sensitive, having a detection limit of $0.002 \mu\text{g}/\text{m}^3$, while the Light 915 has a detection limit of $0.10 \mu\text{g}/\text{m}^3$. Both instruments afford users the ability to collect real-time data and survey large areas in a short period of time. One RA-915M and two Light 915 instruments are available for loan.



Niton XL3t Gold+ X-Ray Fluorescence (XRF) is a handheld device for metals screening in the field via point-and-shoot or in a collection cup. Can measure 35 elements. Battery power for 8-10 hrs. Note that matrix effects & high moisture content are variables that must be considered. An optional sampling stand is also available for larger scale sample screening projects. Requires specialized health and safety training prior to loan. Alternatively, samples can be submitted for analysis.



Thermo Scientific TruDefender FTIR provides known & unknown identification of solid or liquid samples using Fourier-Transform Infrared Spectroscopy, in which the analyte absorbs light energy creating measurable bond vibrations. A large on-board hazmat and drug library is available, and data files can be sent for screening on a larger database. Specialized training is required prior to loan. Alternatively, samples can be submitted for analysis.



Thermo Scientific FirstDefender RAMAN provides known & unknown identification of solid or liquid samples using Raman Spectroscopy, in which the analyte scatters light creating measurable bond rotations. A large on-board hazmat and drug library is available, and data files can be sent for screening on a larger database. Specialized training is required prior to loan. Alternatively, samples can be submitted for analysis.



Other services and equipment are available including air sampling media, personal sampling pumps, sorbent media and kits for water and soil sample collection. Assistance and coordination can also be provided by the WSLH. Contact WSLH:

<http://www.slh.wisc.edu/environmental/>

<http://www.slh.wisc.edu/occupational/wohl/>

Tip: Make a loan request at least 3 days in advance!

The Equipment Loan Program (ELP) requests a minimum of 3 business days' notice to ensure availability of equipment and allow for proper equipment preparation and shipping. For equipment availability and reservations, contact the ELP at DHSEnvHealth@dhs.wisconsin.gov.

Appendix D

Additional Resources



General Guidance

[EPA's Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup](#) includes more detailed information than is provided in this toolkit. It also includes additional studies and specific cleaning methods for household items like wood, windows, dishes, carpet.

[EPA's Risk Assessment](#) webpages have information on conducting human health risk assessments. [Contact us](#) if you have questions or want support on this process.

Fentanyl

The National Institute of Environmental Health Sciences offers [training tools](#) on fentanyl and other opioids to provide awareness and resources for workers potentially exposed to these substances.

CDC/NIOSH provides a [toolkit for emergency responders](#) on preventing occupational exposure to illicit drugs, including fentanyl.

The InterAgency Board for Equipment Standardization and Interoperability offers [guidance](#) on selection and use of personal protective equipment and decontamination products for first responders with potential exposure to synthetic opioids, including fentanyl and fentanyl analogues.

Chemicals in Meth

[Appendix A of EPA's guidelines](#) include common hazards and variations of the chemicals in meth. This is helpful to review prior to conducting an assessment.

[Minnesota Department of Health's Appendix A](#) of their Clandestine Lab Guidance also includes common manufacturing chemicals.

Standards

In the past, cleanup targets were based on the ability of laboratories to detect meth. The cleanup guideline currently recommended by the EPA is a health-based target reflective of concentrations that may cause harm.

There are no federal standards for how properties with a meth lab should be cleaned and the response to cleaning varies by location. However, the [Resource Conservation and Recovery Act \(RCRA\)](#) has regulations that impact hazardous materials. The [EPA RCRA Hazardous Waste Identification of Methamphetamine Production Process By-products](#) treats the chemicals the HazMat teams remove as hazardous waste. For more information on RCRA and their regulations for making a hazardous waste determination, see [40 C.F.R 261](#).