## Ovus Medical White Paper

# **Drug Testing:**

## Ensuring a Safer Meth Free Home



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## Introduction

The real estate industry has been hounded by a horrifying truth. Homes that were used for methamphetamine consumption and production have been turned into beautiful properties with skyrocketing value.

Meth lab homes doubled in number from 2007 to 2010, totaling at more than 15,000. While there was a dip in 2012, the number of meth labs remains in several areas in the southern and mid-western states, as per Drug Enforcement Administration (DEA) data.

The number of foreclosures moved up for the past years. This escalated the issue as there are vacant properties that are on the list for years, even decades. This implies that the documents of their meth past are possibly, lost and unavailable. The risk, according to Meth Lab Cleanup Operations CEO Joseph Mazzuca, is that they were not decontaminated yet but are being put into the market to buyers (most of which do not know about meth contamination in houses).

An estimated 75% of around 2,000 meth-contaminated houses that the Meth Lab Cleanup Operations company remediated are bank-owned. A huge chunk of these meth contamination incidences is in the states of Tennessee, Kentucky, Missouri, West Virginia, and Indiana.

However, property buyers should not assume that only foreclosed houses are contaminated with methamphetamine. There are instances when the police have found methamphetamine drug laboratories in luxurious villages, single-family homes, and high-rise buildings, where the rich live.

Meth Mob owner Ann Atkin says they clean over 100 properties annually, with an increase in demand every single month. and every single month, there is an increase in demand.



## What Lurks in Those Walls?

Often smoked, methamphetamine is an addictive stimulant that can be swallowed, injected or snorted. It comes in the form of pills and powder. Crystal meth, however, appears like glass-shiny white rocks, with bluish accents.

Depending on the toxicity level and physical, chemicals used for meth production can be categorized to solvents, strong acids or bases, and metals and salts. There are plenty ofways to form methamphetamine. Still, the component chemicals are the same.

## Strong Acids, Bases & Solvents



These can be in the form of liquid and gas. Accidental exposure to these substances can adversely affect the health and wellness of residents.

The following substances can seep through the tiles and walls of a property.

#### Chemical Toxicity & Routes of Exposure (Skin and Respiratory) Corrosives & Irritants

| Substance        | Form               | Exposure               |
|------------------|--------------------|------------------------|
| Acetic Acid      | Liquid             | Skin, Eyes, Inhalation |
| Acetic Anhydride | Liquid             | Skin, Eyes, Inhalation |
| Ammonia          | Gas, Liquid        | Skin, Eyes, Inhalation |
| Benzyl Chloride  | Liquid             | Skin, Eyes, Inhalation |
| Hydroiodic Acid  | Liquid             | Skin, Eyes, Inhalation |
| Methylamine      | Gas, Liquid, Solid | Skin, Eyes, Inhalation |
| Perchloric Acid  | Liquid             | Skin, Eyes, Inhalation |
| Phosphine        | Gas                | Eyes, Inhalation       |
| Sodium Metal     | Solid              | Skin, Eyes             |
| Sodium Hydroxide | Liquid, Solid      | Skin, Eyes             |
| Thionyl Chloride | Liquid             | Skin, Eyes, Inhalation |

## Volatile Corrosive Vapors



Volatile corrosive vapors can irritate the eyes, causing extreme voluntary tear flow, corneal injury or inflammation.

On the other hand, inhalation of these vapors can irritate the mucous membranes that line the nose, throat, and lungs.

Some symptoms of meth contamination are coughing, shortness of breath and chest pains, a few days or more than one month after exposure.

In severe conditions, meth vapors cause fluid to accumulate in the lungs, .leading to bleeding and rupturing of the organ's extremities.

Skin irritation can also occur in homes contaminated with meth vapor. Direct exposure to corrosives can lead to severe skin burns and eye injuries.

Headache, dizziness, nausea, and anxiety are some symptoms of a person living in a meth contaminated home.



#### Solid Non-volatile Chemicals

Solid non-volatile chemicals have lesser risks of inhalation. However, when they are exposed to air, explosion or fire, they exist in the air as vapor or dust. They can then be easily inhaled as gas or fine powder.





Liquid solvents such as petroleum ether, pyridine, methanol, isopropanol, hexane, ethyl ether, ethanol, chloroform, benzene, acetone, and benzyl inhalation at low concentrations may cause mild eye, nose, and throat irritation.

Several symptoms of intoxication are lack of muscle coordination and sleepiness. One may also lose consciousness when exposed to high concentrations. Severe exposure can lead to liver and kidney impairment.

#### Metals & Salts



For metals and salts such as aluminum, iodine, lead acetate, lithium aluminum hydride, magnesium, mercuric chloride, red phosphorus, sodium acetate, sodium hydroxide and kerosene components potassium and sodium metal have minimal possible risk of exposure unless they are ingested or if they exist as dust in air, as a vapor at stable temperatures or as fumes when heated.

When combined with moisture, sodium, potassium metal and sodium hydroxide can be extremely corrosive. Lithium aluminum hydride can be very reactive and explosive.

Estimated, around five to seven pounds of chemical waste as a byproduct of meth is manufactured. These pose environmental risks as they go through different routes. Most are dispatched through drains connected to the sanitary sewer which can have bad effects to wastewater plants. Sometimes it can be connected to septic systems which might harm soil and groundwater.

# Methamphetamine Effects on Children



As mentioned previously, risks of meth contamination through inhalation, skin contact, and ingestion can harm one's health, especially where children are involved.

Children younger than five years old are the most susceptible to the dangers of meth contamination due to their exploratory and playful nature. Unknowingly, they might ingest meth residues when they put their hands in their mouth after coming into contact with contaminated surfaces.

These chemicals can also irritate the respiratory tract and can even affect the central nervous system. Chronic exposure to meth residues can also cause cancer and affect vital organs.

Children's size, metabolism, and breathing rate make them more susceptible to dangerous chemicals than adults. These can lead to neurological and growth issues.

Children exposed to methamphetamine may also develop psychological disorders such as poor feeding habits, disorientation, tremors and deprivation and disruption of sleep.

## How to Ensure a Safer, Meth Free Home through Drug



## Testing

The information above relates us to the fact that those searching for properties, mostly couples looking for their first home, or small families that have outgrown their current home, must be vigilant before buying. The chemicals involved in meth production are dangerous and can have damaging effects if not properly addressed.

So how to ensure you'll be buying or renting a meth-free home, knowing that meth residues cannot be easily detected?

This is where drug testing comes in.

## Methods of Drug Testing at Home

Drug testing at home using urine or hair samples are the safest, non-invasive methods for assessing meth contamination. Knowing that you and your loved ones test negative for substance abuse assures you that the home you are currently in is drug-free.

Urine test for methamphetamine is easy and discovery can be just within the day (two to five hours after ingestion of meth or up to three to five days of last use).

The person being tested will urinate in a cup, which will be submitted to the testing facility. The specialists will be able to determine the substances present in the urine.

The most tedious but sure-fire drug test that can detect the history of a person's drug intake for the past three months is through hair samples. Around fifty strands of hair are used for testing to detect meth exposure.

The collection of hair can be done at home and submitted to the specialists, similar to urine testing. The specialists at the testing center will be able to detect the presence of meth.

## Other Drug Testing Methods

Drug testing can be performed by finger pricking one to three days since the drug was last used. A medical technologist will collect blood sample, which he or she will use to determine if meth flows into the blood stream.

Saliva test provides results as early as ten minutes after ingestion or even four days after the last time it was ingested. It is performed by swabbing a cotton bud inside the mouth.

For rentals, these drug testing methods can be performed for tenants prior and after their stay in your property. This can also be done for owners selling the house – the entire household can be subjected to meth drug testing to ensure that the property they are living in does not contain meth chemicals. This is logical as if there are any traces of meth, the family would have been exposed to it already – so, they are most likely to test positive.

#### Conclusion



Drug testing at home is the first step towards a meth-free residence. This ensures tenants that the home they are living in is conducive to healthy living. Property owners, on the other hand, can rest assure that the homes they lease or sell will not be included in the database of meth lab homes, translating to steady income for years to come.

## Suggested Reading:

#### Chemicals in meth manufacture

https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/HEALTHYNEIGHBORHOODS/CLANDESTINEDRUGL ABS/Pages/chemicals.aspx

#### Children exposed to methamphetamine use and manufacture

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3029499/

#### **Methamphetamines: What Parents Need to Know**

https://kidshealth.org/en/parents/drugs-meth.html

## Adverse Health Effects Associated with Living in a Former Methamphetamine Drug Laboratory — Victoria, Australia, 2015

https://www.cdc.gov/mmwr/volumes/65/wr/mm6552a3.htm

#### Can You Get Contact High From Meth?

https://www.drugrehab.com/addiction/drugs/crystal-meth/contact-high/

#### Identifying methamphetamine exposure in children

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3838616/

#### Children exposed to methamphetamine use and manufacture

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3029499/

#### **Substance Abuse**

https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Substance-Abuse

#### The Shady, Unregulated Business of Testing Homes for Meth

https://www.makechange.aspiration.com/articles/2017/7/18/the-shady-unregulated-business-of-cleaning-up-former-meth-labs

#### What to know about urine drug screening

https://www.medicalnewstoday.com/articles/323378.php

#### The Truth About Home Drug Testing for Teens

https://www.verywellmind.com/parents-warned-about-home-drug-testing-63771

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