

Medical Officer of Health Environmental Health ADVICE

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Introduction

Clandestine drug labs are an emerging issue for many New Zealanders. In this issue we provide information on the public health hazards associated with clandestine drug labs.

Auckland Regional Public Health Service contributes towards emergency management services in the Auckland region; here we outline our role as well as the steps you can take to protect yourself and your family in the event of an emergency.

Clandestine Drug Laboratories

What is a Clan Lab?

A Clandestine Laboratory (Clan Lab) is a laboratory set up to illegally produce drugs, commonly methamphetamine. The size of clan labs varies and portable labs have been found in vehicles.

The New Zealand Police found 147 Clan Labs in 2002, 180 in 2003 and 300+ by June 2004. Clan labs were found set up in homes, apartments, motels, rental properties both commercial and domestic, garages, sheds, and lock ups in both built urban and rural New Zealand settings.

Warning Signs of Clan Labs

- ▶ Unusual chemical smells that are not normally present in the area
- ▶ Numerous chemical containers (possibly labelled solvent, acid, flammable) stored or stock piled; often containers are unlabelled or labels are obscured or removed
- ▶ Stained glass equipment and cookware
- ▶ Plastic or glass containers fitted with glass or rubber tubing
- ▶ Numerous cold medication or tablet packages lying around or in the rubbish
- ▶ Portable gas tanks or cylinders not normally seen or used in the area
- ▶ Chemical stains or etching marks around household kitchen oven, bench, sinks, laundry, toilet, bath or stormwater drains
- ▶ Yellow/brown or red staining of interior floor wall ceiling, furnishings and appliance surfaces
- ▶ Boarded or blacked out windows
- ▶ Added ventilation or plumbing
- ▶ Any unusual activity particularly at night including excessive traffic to and from the property, strange behaviour of occupants or visitors
- ▶ Excessive security

What do I do if I suspect a Clan Lab?

Do NOT enter or approach the premises.

Call the Police immediately.

What is Methamphetamine?

Methamphetamine, also known as "crank" or "speed" is a white, odourless, bitter tasting, soluble crystalline powder. When smoked, snorted, injected or orally ingested, this controlled drug stimulates the central nervous system.

"P" is the most common form of methamphetamine abused in New Zealand. Other methamphetamines include "crystal meth" and "ice". "P" can vary from white and crystalline to brown and sticky but is most commonly seen as an off-white to pale yellow/brown crystalline powder. "P" is usually smoked.

Dangers of Methamphetamine

Methamphetamine is highly addictive. Methamphetamine abuse can lead to memory loss, aggressive behaviour, violence, psychotic and paranoid behaviour, and potential cardiac and neurological damage.

New Zealand Law

Methamphetamine is classified as a Class A controlled drug - a drug that poses a very high risk of harm - under the Misuse of Drugs Act 1975, with significant penalties for offenders importing, manufacturing, distributing and possessing the drug without lawful authority.

Hazards of Clandestine Laboratories

In addition to the dangers of methamphetamine abuse, the manufacturing process presents its own hazards. The production of methamphetamine requires the use of hazardous chemicals. Chemicals used are often corrosive (acids), explosive, flammable (solvents) and toxic. The "cooks" often have limited knowledge of the chemical hazards and little concern for their own or public safety. The toxic, acidic and potentially flammable fumes and waste chemical by-products produced during the cooking process pose significant health and environmental risks. Similarly the clandestine nature of the cooking process, in often confined poorly ventilated spaces, combined with the illegal storage and dumping of chemical wastes down kitchen sinks, toilets and stormwater drains all contribute to a potentially hazardous contaminated site. Based on overseas experiences, the risks of a clan lab fire or explosion is high and has resulted in extensive damage to adjacent properties.

Possible Health Effects

The risk of adverse health effect resulting from chemical exposure depends on the chemical itself, the concentration and quantity and the route and duration of exposure. Chemicals may enter the body by being breathed, eaten, injected or absorbed through the skin.

Acute exposure

An acute chemical exposure is one that occurs over a relatively short period of time.

An acute exposure to high levels of contaminants found in methamphetamine labs may cause respiratory irritation (e.g. cough, difficulty breathing, nose and throat irritation), chest pain, eye and skin irritation, dizziness, lack of co-ordination, headaches and death.

This exposure is mostly likely to occur during or immediately after a clan lab has been busted and prior to the lab and cooking area being ventilated, where the route of exposure is by inhalation and skin absorption.

An acute exposure to lower levels of contaminants found in clan labs may cause mild respiratory irritation, headaches, nausea, fatigue or lethargy.

These symptoms have been found in persons who have entered a drug lab after the bust has been completed but before the property has been adequately cleaned and ventilated. These symptoms usually go away after several hours outside the contaminated environment.

Chronic exposure

Chronic exposure occurs over an extended period of time, such as weeks months years. A chronic health effect is one that usually appears after a lengthy period of time. Little is known on the chronic health effects of these labs.

However scientific evidence from animal and human toxicity studies shows that chronic exposure to chemicals used in the manufacture may cause cancer, damage to the brain, liver, kidneys, birth defects and reproductive problems such as miscarriages.

Persons living or working over long periods in active methamphetamine labs are most likely to experience chronic health effects.

Recommendations

- ▶ In summary, because of the possible health effects associated with methamphetamine clan labs we make the following recommendations based on a precautionary approach:
- ▶ If you suspect a dwelling or property is being used as a clan lab contact the Police.
- ▶ Do NOT enter or approach the premises.
- ▶ If you suspect you are suffering adverse health effects associated with Clan Labs seek medical advice.
- ▶ No one should enter a place that has been used as an illegal methamphetamine drug lab without Police permission.
- ▶ Following a clan lab find the Police will have information on the actual or likely chemicals found or used on the site.

- ▶ No one should enter a place that has been used as an illegal methamphetamine drug lab without appropriate Personal Protective Equipment (PPE), unless the area has been ventilated and decontaminated. Contact Occupational Safety and Health (OSH) or your local safety store for advice on PPE.
- ▶ No one should rent, purchase or otherwise occupy a house or dwelling which has been used as an illegal drug lab until the property has been decontaminated using reputable commercial cleaners. Contact your insurer and local Council for advice.
- ▶ Expert advice on decontamination should be sought before considering use of acidic, alkali, chlorine or ammonia based cleaning substances.
- ▶ All persons carrying out the decontamination/cleaning work should wear appropriate protective equipment e.g. gloves, skin, eye and respiratory protection as surfaces may contain acidic/alkali chemical contaminants. Contact OSH or your local safety store for advice on appropriate PPE.
- ▶ All materials used in the cleaning process should be safely handled, packaged and where appropriate disposed of in accordance with local Council requirements, so as to prevent a health nuisance arising.
- ▶ Contaminated kitchen surfaces, plumbing and appliances should not be used for food preparation until such time as they have been commercially cleaned, decontaminated or replaced. Contact you insurer for advice.
- ▶ The decision to rent, purchase or otherwise occupy a house or dwelling which has been used as a drug lab should be made with the knowledge that no decontamination procedure can guarantee absolute safety for re-occupancy.
- ▶ If in doubt contact your local Council Environmental Health Officer or Occupational Safety and Health office, Department of Labour for advice.

For further information visit the following websites:

www.ndp.govt.nz

www.tenancy.govt.nz

www.idph.state.il.us/envhealth/factsheets/meth-cleanup.htm

www.doh.wa.gov/ehp/ts/CDL.HTM

www.kci.org/meth_info/meth_cleanup.htm

Disclaimer:

This best practice advice is based on information provided by other agencies including those whose websites are listed above. This information is based on a common sense precautionary approach to the safe management of unknown hazardous substances and contaminated environments. Some situations of suspected contamination may require alternative or additional safety measures. Auckland Regional Public Health Services, Auckland District Health Board and the author can not be held liable for any actual or potential economic or other adverse effect(s) arising from use of this information.

Public Health Emergency Planning and Response

One of Auckland Regional Public Health Service's key roles in the Auckland region is to contribute towards public health emergency planning and response. The types of public health emergencies which could occur in the Auckland region include: natural disasters, extreme weather events, chemical spills, emergent diseases, communicable disease outbreaks, food or water borne illnesses or food contamination incidents

and terrorist activities. Our service is involved with education and contingency planning as well providing services during an emergency event. Contingency plans are reviewed to ensure that they include provision of:

- ▶ Basic sanitary services including basic safe water supplies to communities
- ▶ Basic safe shelter

- ▶ Safe food to communities
- ▶ Basic facilities for the maintenance of personal hygiene
- ▶ Removal and disposal of hazardous substances
- ▶ Prevention and control of communicable disease outbreaks
- ▶ Removal and hygienic disposal of the dead

Each year Health Protection Officers and Medical Officers

of Health from the Auckland Regional Public Health Service attend emergency management training courses run by the Ministry of Health and private providers. Staff from ARPMS also regularly participate in inter-agency exercises to test contingency plans for public health emergencies. The lead agency during a major emergency will usually be one of the local or regional councils or the police.

Preparing for a public health emergency - What you can do?

To prepare for an emergency, you should take time to find out:

- ▶ Where and how to turn off water, gas and electricity supplies in your home
- ▶ The emergency procedures for your children at school and in childcare facilities
- ▶ The emergency procedures at your workplace
- ▶ How your family will stay in contact in the event of an emergency
- ▶ If any elderly or vulnerable neighbours might need your help
- ▶ How to tune in to your local radio station

If you are at home and an emergency happens, try to gather together:

- ▶ A list of useful phone numbers, such as your doctor's and close relatives'
- ▶ Home and car keys
- ▶ Toiletries, sanitary supplies and any regularly prescribed medication
- ▶ A battery radio, with spare batteries
- ▶ A torch with spare batteries, candles and matches
- ▶ A First Aid kit
- ▶ Your mobile phone
- ▶ Cash and credit cards
- ▶ Spare clothes and blankets

Also, it is always useful to have:

- ▶ Bottled water, ready-to-eat food (e.g. tinned food) and a bottle/tin opener, in case you have to remain in your home for several days.

In certain very unlikely situations, you may be asked to leave your home by the emergency services. If this happens, leave as quickly and calmly as possible. And, if you have time:

- ▶ Turn off electricity, gas and water supplies, unplug appliances and lock all doors and windows
- ▶ See the items listed above for what to take with you
- ▶ If you leave by car, take bottled water and blankets, and tune in to local radio for emergency advice and instructions

When you are told that it is safe to return home, open windows to provide fresh air before reconnecting gas, electricity and water supplies.

For further information visit the following weblinks:

- ▶ Auckland Region Hazards
<http://www.arc.govt.nz/arc/index.cfm?2906F2C7-7C85-4E93-BA8D-041EE25B9895>
- ▶ Plan B Community Resilience
<http://www.planb.govt.nz/home.htm>
- ▶ Ministry of Civil Defence Emergency Management
<http://www.mcdem.govt.nz/memwebsite.nsf>
- ▶ Monitoring geological hazards in NZ
<http://www.geonet.org.nz/>
- ▶ Latest Earthquakes
<http://www.geonet.org.nz/latest.html>
- ▶ NZ Natural Hazards
<http://www.gns.cri.nz/hazardwatch/latest/>
- ▶ CDC Atlanta Emergency Preparedness
<http://www.bt.cdc.gov/>

Short Notes

▶ Dioxin exposure and New Plymouth

The Ministry of Health's reports on blood dioxin levels in Paritutu residents are available from their website www.moh.govt.nz/dioxins. Former residents of the area as well as people who may have worked at the plant are advised to consult the website for information in the first instance. Former residents with concerns about health effects can contact either the Ministry of Health dioxin helpline 0800 555 567 or Dr David Sinclair at the Auckland Regional Public Health Service 09 262 1855. People with concerns regarding occupational exposure and health effects are advised to consult with their general practitioner who may refer them to Occupational Safety and Health.

▶ Disposal of medical waste

All medical waste should be disposed of in accordance with NZS 4304-2002 Management of Healthcare Waste. This standard covers waste streams from both human and animal health care. The scope of the standard includes disposal of low risk items such as used plasters and band aids, as well as higher risk (and higher profile) items such as needles and syringes. Copies of the Standards can be brought from www.standards.co.nz.

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Tatiana Derevianko joined the Environmental Health Team in May 2003 as the Drinking Water Registration Project Officer while completing her Graduate Diploma in Environmental Health through Massey University. Tatiana has a Medical degree from Russia where she was working as a skin disease specialist. Since graduating from Massey University, Tatiana has been employed in the Environmental Health Team as a Health Protection Officer. Since joining the team, Tatiana has been focussing on drinking water and she is currently studying towards National Diploma in Drinking Water Assessment through Otago Polytechnic.