

METH (METHAMPHETAMINE)

and what you
need to know



New Zealand
Needle Exchange
Programme

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What is METHAMPHETAMINE?

Methamphetamine (meth) hydrochloride is a very strong stimulant which is similar to other amphetamines, but it has much stronger effects.

Meth generally comes in a powder form that resembles granulated crystals. It can range in colour, from white or yellow to darker colours, depending on the manufacturing process. It can sometimes appear wet or oily.

Meth can be swallowed, snorted, injected, smoked, inhaled or administered anally. Although smoking a glass pipe or bong is the most common way to use meth in New Zealand, more people are injecting it, especially people who use it regularly. It is commonly referred to as P, ice, pure, crack, fries, speed and burn.



What are the effects of METHAMPHETAMINE use?

Meth increases the amount of dopamine in the brain. Dopamine is a neurotransmitter that controls feelings of pleasure, body movement, motivation and reward. Meth releases a lot of dopamine in the reward parts of your brain very quickly, which gives an intense feeling of euphoria. This feeling, usually called a rush, is felt almost straight away, especially when smoked or injected.

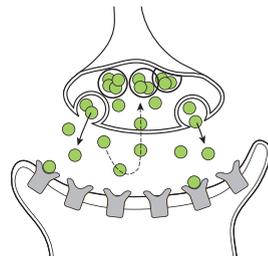
Meth also affects serotonin levels. Serotonin, another neurotransmitter, plays an important role in regulating your mood, emotions, appetite, body temperature, sleep and sexual activity.

Normal Dopamine Activity

Dopamine travels across the synapse (the gap between cells) to a nearby brain cell.

Receptors bind the dopamine to the receiving cell.

Dopamine eventually breaks down and is reabsorbed by the transmitting cell.



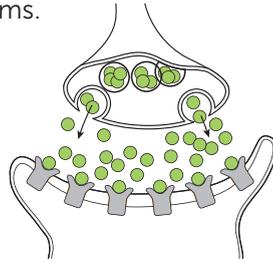
The Brain Using Meth

Meth causes the brain cells to release high levels of dopamine.

Meth blocks the reabsorption process, creates a dopamine buildup and the receptors become desensitised.

Dopamine levels gradually decrease, which may result in you experiencing low mood symptoms.

When the dopamine receptors are regularly stimulated by meth, they can become less responsive. This means more meth is needed to produce the same euphoric effect.



The **immediate effects** of using meth include being more alert, increased physical activity, decreased appetite, faster breathing, rapid and/or irregular heartbeat, increased blood pressure and body temperature.

Over time, and when used more regularly, or in larger amounts, meth use can cause many unpleasant physical and psychological effects. These generally include:

- anxiety, depression, chronic low mood and negativity;
- confusion and memory problems;
- disturbed sleep patterns and insomnia;
- violent or hostile behaviour;
- paranoia (extreme suspiciousness and distrust of others);
- hallucinations (often unpleasant sensations, like bugs crawling under your skin, and images that seem real although they aren't);
- intense itching, picking your skin, or sores from scratching;

- loss of weight and conditioning;
- chest pain, damage to the heart muscle, hypertension (high blood pressure) and irregular heartbeat;
- serious dental problems (from drinking sweet drinks to relieve mouth dryness, grinding and clenching your teeth, and general poor dental hygiene, such as not cleaning or flossing);



Using meth long-term can also cause clumsiness, poor balance, shaking and unplanned repetitive movements and activities. This happens because meth changes your brain's chemistry. Although some of these brain changes may improve after you stop using meth, some persist for months after stopping, and some may be irreversible.

There are even more health problems that can occur from **injecting** meth.

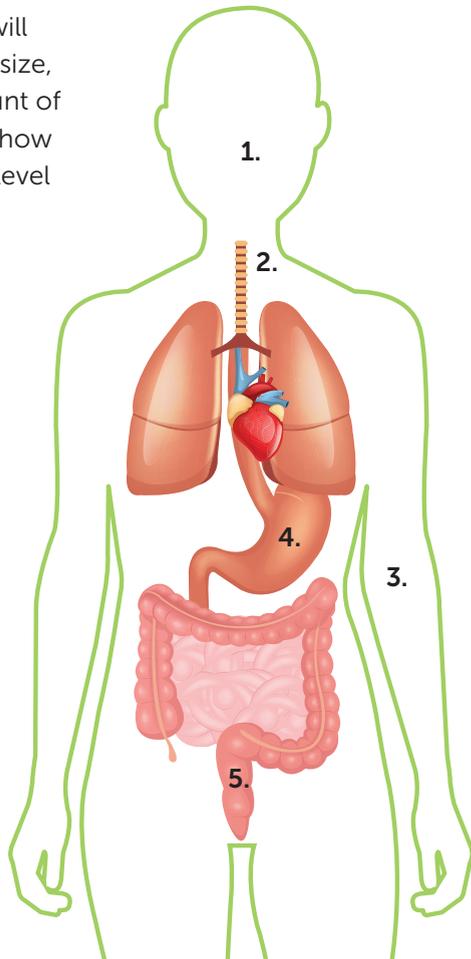
- You have an increased risk of contracting a blood borne virus, such as hepatitis B, C and HIV;
- Frequent injecting into the same vein can cause inflammation, which can lead to collapsed veins and abscesses. Abscesses can be aggravated by the toxic chemicals in the meth.
- You are at risk of pulmonary embolism, which is a blockage in the main artery of the lung, or one of its branches. This is usually caused by impurities and contaminants in the solution not being adequately filtered out.

Using a wheel filter can help to remove impurities that cause infection

How long does **METHAMPHETAMINE** last in the body?

The onset and duration of euphoric effects of meth depend on the way it is taken. The come down period for all routes is generally between 2 and 6 hours, and the after effects generally last for up to 24 hours from the time of taking the drug.

The elimination time will depend on your body size, metabolism, the amount of meth you have taken, how often you use it, your level of hydration and how healthy you are.



- 1. Snorting Meth** - Meth is snorted through the nose. It travels from the lungs into the bloodstream and to the brain. It takes 3-10 minutes to take effect and the euphoric effects generally last from 2-4 hours, with the come down and after effects lasting up to 12 hours.
- 2. Smoking Meth** - Odourless vapour inhaled through a glass pipe. Meth quickly travels from the lungs into the bloodstream and to the brain. The user experiences an intense rush that lasts for a few minutes. The euphoric effects generally last between 1-3 hours, and the come down and after effects can last up to 24 hours.
- 3. Injecting Meth** - Injecting is the fastest way to get meth into your bloodstream and the user experiences an intense rush, or flash, that lasts for a few minutes, similar to smoking. The euphoric effects can last between 4-8 hours and the come down and after effects can last up to 24 hours.
- 4. Ingesting Meth** (taking it orally) - Meth enters the bloodstream through the digestive system. The drug takes longer to take effect via this method (15-70 minutes) but the high can often last longer than other methods. The after effects can last up to 24 hours and sometimes longer.
- 5. Anal Administration of Meth** (plugging or shafting) - A solution of meth and water is inserted into the rectum. A syringe (without the needle) is often used for this. The meth is absorbed through the anal cavity walls directly into the bloodstream. Onset is usually between 2-20 minutes, depending on how clean the rectum is. Euphoric effects can last 3-5 hours and the after effects, as with other methods, up to 24 hours or longer.

Tips for safer METHAMPHETAMINE injecting

Injecting meth, like any injecting, has its risks. Some are because of the strength and toxicity of the meth you are injecting, and others are related to the way you inject. Here are some things you can do to reduce those risks.

Tip 1: Ensure the meth you buy is safe

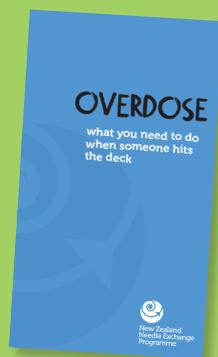
Know your dealer. Avoid buying meth from people or sources you do not know as it may be stronger than you are used to, contaminated, or cut with toxic substances. If you are not sure, we recommend that you inject a small amount to start with, so that you can tell what the effect will be.

Tip 2: Keep yourself safe

Use with a friend. Using alone means no one will be there to help if anything goes wrong. Read up on our 'Overdose' booklet so that you are prepared if something does not go to plan.

Don't be in a hurry to inject. Take your time with the process to avoid complications.

Avoid injecting into your neck or groin.



Tip 3: Keep everything clean

Wash your hands (hot water and soap is best) and dry them thoroughly before touching any sterile equipment. If you don't have access to soap and water, the next best thing is to clean your hands with an alcohol swab or with hand sanitiser.

Wipe your injection site with an alcohol swab (one swipe in one direction), or with soap and water if a swab is unavailable, to remove any bacteria from your skin. Swabbing is important as getting bacteria into your blood stream can cause serious health problems.

Tip 4: Take care with mixing

When mixing meth with water, make sure it is sterile. If you don't have access to sterile water, use water that has been boiled for at least **ONE** minute and left to go cold. If you do not have sterile or boiled water, bottled water or cold tap water are an acceptable option only if you use a filter, such as a blue wheel filter, to take out any bacteria. Don't use water from the hot tap as it may contain bacteria from the hot water cylinder.

Tip 5: Always use new sterile equipment

Use a brand new sterile needle and syringe each time you inject.

Use a different **new needle** for mixing and drawing up. Needle tips can be damaged/barbed if used for mixing and can damage your veins if you also use them for injecting.

If you have to try a few times to find a vein, always use a new needle for each attempt. An 18 gauge needle is ideal for drawing up and a 26-30 gauge for injecting.

Tip 6: Don't share needles, syringes or any other injecting equipment

Always use new, sterile and disposable gear. Never re-use or share any equipment, not even with your partner.

Blood and bacteria that remain in a needle and syringe after someone has used it can be passed on to anyone else who uses that equipment. The same applies to steri-cups, spoons, and filters. This is how viruses such as hepatitis C and HIV can be transmitted from one person to another.

If you're using with someone else, make sure their equipment is separate from yours so that accidental mix-ups and sharing don't occur.

Tip 7: Front-loading and back-loading

Front-loading (through the tip of the syringe) and back-loading (through the back end of the syringe with the plunger removed) are only okay if all equipment is new and sterile. There is a very high risk of contamination due to the equipment being exposed to unsterile surfaces such as your mouth, jeans, and table tops, when multiple pieces of equipment are taken apart and put down.

Tip 8: Always filter your drugs

Always use a filter to clean up your hit. Ciggy filters will only prevent undissolved particles and other debris from entering into your syringe and then your veins. If you use a ciggy filter, make sure you remove the paper first.

We recommend that every hit be put through a low micron filter, such as the blue wheel filter, to remove bacteria. This is especially important if you haven't used sterile or boiled water. Wheel filters work better if you prime them by wetting them first.



Tip 9: Look after your veins

It is very important to look after your veins to ensure that they will be able to be used long term. Here are some things that you can do to make them last longer.

- Keep hydrated. Drinking 20 minutes before your hit will help to plump up your veins and will prevent them moving around.
- Always clean your injection site to reduce the chance of bacteria entering your blood stream.
- Filter all your hits.
- Put your hit away slowly. The slower the better.
- Apply a healing cream like Arnica or Hirudoid to the surrounding area after injecting.
- Change injection sites to reduce your risk of infection and to give the previous site a chance to recover.

Tip 10: Dispose of all your injecting equipment in a sharps container.

If you look after your veins they will last longer.

Hydrate. Filter. Swab. Inject slowly. Rotate your sites.

Risky BEHAVIOURS

Bingeing

Some people go on meth binges that can last for several days or longer. During these binges, people often skip sleeping and eating, and they use meth repeatedly until the supply runs out or they are unable to continue.

People can be impatient and impulsive after a few days of bingeing and their ability to make sensible choices is sometimes affected. This can put them at risk of unsafe injecting behaviours, such as sharing equipment, not making sure injection sites are clean or that equipment has not been exposed to contamination. If binge use is likely to occur, we recommend that you have a good supply of new equipment and cleaning materials on hand.

It is best to avoid bingeing though, as it is likely to have a negative effect on both your physical and mental health.

Unsafe sex

During the meth high, some people will be more sexually aroused. Others will use meth specifically to enhance sexual experiences. It is more likely that people will have unsafe sex (such as not using condoms) during a meth high because they have reduced inhibitions. Having a good supply of condoms, lubrication etc. available is recommended.

Chemical exposure

Some of the chemicals used to produce meth are highly toxic. Exposure during the 'cooking up' process can be very dangerous to anyone involved, especially children, pregnant women and people with physical health problems. Places where meth is cooked can stay contaminated and continue to affect the health of people using the area. There is also the risk of explosion if the chemicals are incorrectly managed.

Because of this, it is very important to have a good understanding of the chemical processes involved in meth production. You should never be involved in cooking meth when you are intoxicated on any substance, tired or impatient, because you need to be able to focus on the task and not get distracted.

Staying healthy when using METHAMPHETAMINE

- Keep **hydrated** – make sure you drink plenty of fluid. This also helps with access to veins.
- Avoid sugary drinks to relieve dry mouth symptoms as this can cause or aggravate tooth decay.
Water is better.
- Try to **eat** even if you do not feel hungry. Try not to eat too much sweet food though as it can also affect your teeth.
- Remember to clean and floss your **teeth**.
- If you've been picking at **sores**, make sure you clean the spots with an antiseptic solution so that they don't become infected.
- Look after your **mental health**.
 - Make sure you get plenty of sleep – being awake for days on end can cause you to become paranoid, anxious and irritable.
 - If you notice you are angry or paranoid, or people point it out to you, take a break. Get some sleep, or go somewhere quiet and away from stimulation and conflict.
 - Don't forget to take your prescribed medication.
 - Talk to someone you trust.



OVERDOSE

You can be at risk of overdosing on meth - if you use large amounts; when your tolerance is reduced; if you use a stronger batch than you expected; or when you have also used other substances (such as alcohol).

It is important to be aware of the signs and symptoms of a meth overdose as the sooner you (or someone you are with) receive help the higher your chances of survival.

Signs and symptoms of a meth overdose:

- Your heart is beating faster or slower than usual, or it is beating irregularly.
- You have chest pains.
- You are having difficulty breathing, or you are breathing rapidly.
- You are overheating, but not sweating.
- It is difficult, or painful, to urinate.
- You feel agitated (very irritable and upset), paranoid, or both.
- You start feeling anxious, or have a feeling like something awful is going to happen, or you feel scared without a reason.
- You experience hallucinations.
- You have a seizure.

If you experience these symptoms, you may be at risk of having a heart attack or a stroke, or becoming unconscious. This could be fatal. **Call 111 and ask for an ambulance.**

If the person you are with is unconscious and not breathing, start CPR compressions (chest presses), giving 100-120 compressions each minute until the ambulance arrives.



If the person is breathing put them in the recovery position.

Information on both CPR and on how to put someone in the recovery position can be found in the booklet 'Overdose – what to do if someone hits the deck'. This is available at your Needle Exchange or on the NZNEP website www.nzne.org.nz. **Read it before you need it.**

Stopping METHAMPHETAMINE use

Most substances used repetitively over time cause changes in your body and brain chemistry. You may adapt to having meth on board and need larger doses to produce the same euphoric effect. This is called 'tolerance'. After you stop or reduce your use, you may experience withdrawal symptoms.

There are a lot of different factors affecting how long withdrawals last, and how intense they will be. They include how much and how often you use; how long you have been using; and if you have any physical or mental health problems. They also include your beliefs and attitudes about withdrawing. If you think you will be able to cope, you are more likely to, but if you think you won't be able to cope, you most likely won't cope as well.

The table **on the opposite page** shows the likely progression of withdrawal symptoms.

Common Methamphetamine Withdrawal Symptoms

Days since last use	Symptoms
1-3 days	Crash: <ul style="list-style-type: none"> • Exhaustion • Many hours asleep • Depression
2-10 Days <i>Common</i>	Withdrawal: <ul style="list-style-type: none"> • Strong urges to use, cravings • Mood swings, tearfulness, anxiety, irritability, feeling drained • Agitation • Sleep problems • Poor concentration • Aches, pains and headaches • Diarrhoea • Hunger • Loss of libido • Paranoia • Hallucinations
<i>Very uncommon</i>	
7-28 days	Most symptoms settle but some people could still be having: <ul style="list-style-type: none"> • Mood swings • Depression • Sleep problems • Loss of libido • Cravings
One to three months, sometimes much longer	Over time as brain chemistry adjusts: <ul style="list-style-type: none"> • Sleep patterns improve • Energy levels get better • Mood settles

Cravings, paranoia, low mood, and anxiety problems can sometimes continue for months after stopping use. Medication may be required to relieve some of these symptoms over time.

How to get help for METHAMPHETAMINE use

Information and Treatment Referral

If you want help to stop using methamphetamine talk to your GP or someone at an addiction service. The Alcohol and Drug Helpline provides confidential advice and can refer you to an addiction service provider in your area. You can call them on 0800 787 797.

Self-help tools:

- P**d off: A guide for people trying to stop using Meth/Ice/Speed. Matua Raki. www.matuaraki.org.nz
- MethHelp. An online tool with information and stories. www.methhelp.org.nz

Contact your New Zealand Needle Exchange Programme outlet for confidential information about obtaining needles, syringes and other injecting equipment and advice on safe injecting. NZNEP staff will also be able to give you information about treatment services available. Visit the NZNEP website for information about Needle Exchanges in your area at www.nznep.org.nz

**It is really important to always swab or clean
your injection site**

Always use sterile injecting equipment

USE A NEW FIT FOR EVERY HIT

Visit your local NZNEP Outlet for equipment
and education to reduce the harms
associated with injecting substance use



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