

# Crystal Methamphetamine

## LESSON OBJECTIVES

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- students will be able to recognize the health effects of crystal methamphetamine use
- students will be able to learn how crystal methamphetamine causes physical dependence in the brain
- students will be able to understand that psychological dependence results from crystal methamphetamine use
- students will be able to evaluate the level of risk in situations involving crystal methamphetamine
- students will be able to gain increased awareness of the norm of non-use (the majority of Alberta youth have never used crystal methamphetamine)

## CONTENT AND TIME (60-MINUTE LESSON)

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- 7.1 Introduction (10 minutes)
- 7.2 Activity: Crystal meth: Gossip or gospel (40 minutes)
- 7.3 Closure: Key Messages (10 minutes)

## REQUIRED MATERIALS

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HANDOUT 7.1: Truth or Tale tags

HANDOUT 7.2: Truth or Tale answer tags

HANDOUT 7.3: Truth or Tale teacher's answer sheet (numbered)

## Background information for teachers

Crystal methamphetamine (“crystal meth”) is a drug that is synthetically produced in labs. It is made from ingredients bought in local drug and hardware stores. Contrary to popular belief, crystal meth is not a new drug. It is the smokable form of methamphetamine (“meth”), a drug first produced in 1893. Meth is one of a group of drugs called amphetamines. Amphetamines are stimulant drugs, often called “speed.” The word “speed” can be used to describe the desired effects of the drugs—feeling alert and energetic, and having little interest in food or sleep. Crystal meth is popular because it can be smoked to give the user a rapid high, and the effects last longer than those of other stimulants. Using crystal meth can produce the following desired effects:

- High energy, lack of fatigue, wakefulness, enhanced performance
- Feelings of joy, power, success, high self-esteem
- Increased sexual desire and interest

Crystal meth use can also cause acute problems, which may include the following:

- Delusional thinking; paranoid, violent behaviour
- Itching, welts on the skin
- Impulsive decision-making
- Nausea, vomiting, diarrhea
- Increased blood pressure, heart rate, and body temperature; risk of stroke
- Uncontrolled body movements
- Seizures (can be fatal)

There are two distinct ways that people use crystal meth: chronic periodic use and bingeing.

In the first, the user takes “hits,” or puffs, of vapourized crystal meth from a pipe throughout the day, up to every half hour, and then stops in time to sleep at night.

People who binge use repeatedly several times a day for several days (usually three days or longer), and usually neither eat nor sleep for this time. The intensity of the euphoric effect decreases after the first

use. By the second day, most people become increasingly agitated, have pseudohallucinations (visual images that are frightening but that the person knows to be unreal), and sometimes have true hallucinations. Eventually, the person either becomes exhausted or the drug supply runs out (Brands, Sproule, & Marshman, 1998).

After a binge, many people report “tweaking,” a stage in which they feel uncomfortable, irritable and perhaps paranoid, and may become violent. This is at least partly due to the fact that they have not slept for days.

Those who abruptly stop after chronic use of high doses of methamphetamine will crash, that is, experience great fatigue and sleep for one to three days. This is part of withdrawal from the drug. They will awaken from this prolonged sleep feeling extremely hungry, and experiencing anxiety, cravings for the drug, extreme depression, and sometimes suicidal thoughts (Alberta Alcohol and Drug Abuse Commission [AADAC], 2003a). Those highly addicted may feel depressed and low in energy for up to six months (Wolkoff, 1997).

There is a high relapse rate with people who use crystal meth. While they are using the drug, the way their brain experiences pleasure is changing. When they stop using the drug, they may not feel ordinary pleasures in the same way that they used to. When compared to their memories of the euphoria induced by the drug, the temptation to use again can be very strong (AADAC, 2003c).

## 7.1 Introduction

(10 minutes)

Ask students to share “facts” they already know about crystal meth. If they can recall, ask them to discuss where they acquired this knowledge. Allow them to talk about some of the public perceptions of crystal meth without commenting on the accuracy of their statements at first. It may be that the students are unable to identify where they first heard these statements. This can be an opportunity for them to challenge their assumptions about reliable sources of information and decision-making that might be based on misinformation. Some common myths are discussed below:

Crystal meth is a new drug—MYTH. It is the smokable form of methamphetamine, a drug first produced in 1893 (Anglin, Burke, Perrochet, Stamper & Dawud-Noursi, 2000). Crystal meth has been in North America since the mid 1980s (Wolkoff, 1997).

Anyone who uses crystal meth more than once will become addicted—MYTH. We can say that crystal meth is highly addictive, but how addictive has not been established. Each of us has a different potential for addiction to a given substance, depending on our genetic makeup and life circumstances. (There are people who say they felt addicted the very first time they tried alcohol, smoking, gambling or any number of addictive drugs or activities: they are a tiny minority, and this is just as likely to be true of crystal meth as it is of other substances.) It may be tempting to try to scare kids away from trying illegal substances, but when we do this, we destroy our credibility with them; particularly, those who have tried the drug and those who have friends who use it (Ah Shene, 2003a).

Youth commonly use crystal meth—MYTH. Alcohol and cannabis continue to be the two most widely used drugs in Alberta, and that is true for youth as well as adults. The Canadian Student Tobacco, Alcohol and Drugs Survey (2016-17) found that only 1.2% of Alberta youth in grades 7 to 12 had used methamphetamine in the past year (<https://www.canada.ca/en/health-canada/services/canadian-student-tobacco-alcohol-drugs-survey/2016-2017-supplementary-tables.html#t16>). It is helpful for youth to know that most kids their age are not using illegal drugs and very few use synthetic drugs like crystal meth. When kids believe “everyone” is using a drug, they may start to think it must be safe and that using drugs is common.

## 7.2 Activity:

### Crystal meth: Gossip or gospel (40 minutes)

This activity examines some of the information/misinformation existing in a young person's social environment and how this can influence the decision-making process. In this activity, it is necessary for students to discuss their perspectives about crystal meth information with one another. Some of the information is correct, and some incorrect.

Truth or Tale Tags (found on page 7) can be copied and then cut into strips. Each strip should contain only one statement. Hand out one or two statements to each student (depending on the size of your class). There are 26 statements altogether.

Once the students have a statement, ask them to decide whether their statement is true or false. Give them only a few moments to decide. For some students, this lesson may be their first introduction to crystal meth.

Perhaps they have no background knowledge about these statements; in this case, ask them to guess. Others might have a very personal experience with crystal meth or other substances. Explain that this forum is a chance to learn about the realities of crystal meth. Ask students to be aware of the range of experience in the room. Not all people think about crystal meth in the same way; assure students that the classroom is a safe place to discuss the topic. Reinforce that this activity is not necessarily about whether young people know everything they can about crystal meth, but instead how they can make sense of the information around them (learn to think critically).

Next, ask students to move into groups of four or five. Have them combine their statements to create a pile they believe to be true and a pile of false statements. Allow groups time for discussion (10 minutes). Tell students that this discussion time is also time to prepare some rationale about why they feel the true statements are true and the false statements false; you are asking them to formulate their defense. Also, ask students to think about whether their belief in the truth of each statement changed when they joined a working group.

Give each group the opportunity to present their truths and myths about crystal meth. Once the groups state their findings, open discussion to the larger class.

- Are there any confusing statements?
- Does anyone have information to confirm or refute the group's findings?
- How confident were you about the truth or fiction of each of the statements?

Truth or Tale Answer Tags can be copied and cut into strips. Again, each strip should contain only one statement. The answers are not numbered. An answer sheet with numbers is provided for your reference. Spread the statements on tabletops around the classroom. Ask students to move around the room independently and find the answers that go with their Truth or Tale Tags. Ask students to comment on surprising, confusing or confirming findings.

## 7.3 Closure: Key Messages

(10 minutes)

Ask the students to debrief the activity with a rapid-fire response to the question, "Name one myth about crystal meth that has been dispelled." Challenge the students to include a piece of information clarified for them during the lesson. Encourage them to think of different examples from those already mentioned by other students.

# Truth or Tale Tags

1. Crystal meth is made from natural and highly controlled substances.  
\_\_\_\_\_
2. It is common for crystal meth to be prepared from ephedrine (a stimulant).  
\_\_\_\_\_
3. Crystal meth is classified as a depressant drug; that is, it slows down central nervous system functioning.  
\_\_\_\_\_
4. Crystal meth is a new drug.  
\_\_\_\_\_
5. Crystal meth is a synthetic drug, which means that it is a manufactured substance.  
\_\_\_\_\_
6. The effects of crystal meth are very similar to cocaine.  
\_\_\_\_\_
7. Crystal meth is the most commonly used drug in Alberta.  
\_\_\_\_\_
8. Crystal meth is the drug most associated with violent behaviour.  
\_\_\_\_\_
9. Crystal meth is so addictive that 70% of people will become addicted after using crystal meth once.  
\_\_\_\_\_

10. Because crystal meth is made in laboratories from chemical ingredients, it is a completely safe drug.  
\_\_\_\_\_
11. Since all ingredients in crystal meth are available at drug and hardware stores, it is not possible to get a criminal record for the possession of crystal meth.  
\_\_\_\_\_
12. Crystal meth is the drug most commonly used by Alberta youth.  
\_\_\_\_\_
13. In general, when people are withdrawing from crystal meth, they will experience the opposite effects of the drug.  
\_\_\_\_\_
14. Withdrawal from crystal meth is the same for everyone, regardless of how long they have used and how much was used.  
\_\_\_\_\_
15. Like all stimulants, crystal meth increases blood pressure, heart rates and breathing rates.  
\_\_\_\_\_
16. Crystal meth use causes people to feel fatigued and sleepy.  
\_\_\_\_\_
17. Chronic use of crystal meth can cause sleep problems and can change people's moods and mental state.  
\_\_\_\_\_
18. Crystal meth is popular with some people in the club scene for the high-energy rush it creates.  
\_\_\_\_\_
19. Smoking crystal meth can cause lung damage.  
\_\_\_\_\_



20. When a woman is pregnant, it is OK to use crystal meth because the drug is unable to pass through the placenta and affect the fetus.
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21. At higher doses, some users of crystal meth experience feelings of power and superiority.
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22. Sores on the skin, or itchy skin that can lead to scratching, sores and infection, apply only to heroin use and do not occur with crystal meth use.
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23. Methamphetamine gives a longer lasting high than other stimulants do.
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24. Toxic chemicals are used to manufacture crystal meth.
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25. If crystal methamphetamine is taken with other drugs, the risk of overdose increases dramatically; however, mixing crystal meth with alcohol is a safer choice.
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26. Crystal meth use causes long-term changes in the brain that can impact a person's mood, causing anxiety, depression and even thoughts of suicide.
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# Truth or Tale Answer Tags

**False** - Crystal meth is made from simple chemicals; it is a synthesized substance.

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**True** - Crystal meth is most commonly prepared from ephedrine and pseudoephedrine and other available ingredients.

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**False** - Crystal meth is a stimulant drug; that is, it speeds up central nervous system functioning.

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**False** - Crystal meth is the smokable form of methamphetamine, a drug first synthesized in 1893.

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**True** - Crystal meth is a synthesized drug usually made in illegal labs. Those who "cook" the drug may not be skilled, and you cannot predict what is in it.

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**True** - Like all stimulants, crystal meth speeds up the body and mind. However, the crystal meth high lasts longer than the high from cocaine.

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**False** - Alcohol continues to be the most commonly used drug in Alberta.

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**False** - Violent and aggressive behaviour can be an effect of crystal meth use; however, alcohol is the drug most associated with violence.

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**False** - Crystal meth is a highly addictive substance, which produces extreme cravings. However, it is difficult for reliable research to give an exact number to describe the addictive potential of a drug.

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**False** - Even when made in a reputable laboratory, crystal meth is a dangerous and addictive drug. When it is made in illegal and unregulated "drug labs," it is even more dangerous, because it is impossible to know what the strength of the drug is and what harmful impurities there are.

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- False** - Crystal meth is illegal and possession can result in criminal charges.
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- False** - In 2017, only 1.2% of Alberta youth in grades 7 to 12 had used methamphetamine in the past year. The most widely used drugs by young people continue to be alcohol and cannabis.
- 
- True** - The desired effects of crystal meth include high energy, high self-esteem, lack of fatigue and wakefulness. In withdrawal, the person is likely to experience low energy, anxiety, paranoia, depression, extreme fatigue and loss of motivation.
- 
- False** - Though there are many common symptoms, withdrawal can vary, depending on the amount used and the frequency of use. Every person is different, with a different potential for addiction that is dependent on a number of factors.
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- True** - Crystal meth does have many of the same effects as other stimulants, but may also cause permanent damage to the brain.
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- False** - Fatigue and sleepiness are not effects of crystal meth itself, but side effects of coming off the drug. Because the user's body has been at an elevated state for a prolonged amount of time, and because the body cannot sustain that level, it needs to rest and slow down. Sleeping for one to three days ("the crash") after binging is common.
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- True** - People who use crystal meth regularly (low or high doses) have trouble sleeping. When they do sleep, their sleep is disturbed and they wake up often. Regular high-dose use can lead to paranoid behaviour, severe agitation and social isolation.
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- True** - Because of the desired effects of the drug, crystal meth is often used in the club scene.
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- True** - Anytime a drug is used in the smokable form, lung damage can result.
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- False** - Babies exposed to crystal meth in utero are more likely to be born prematurely, have low birth weight, and may experience withdrawal symptoms.
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**True** - Feelings of power and superiority are desired effects of using crystal meth; hostility and aggression also occur.

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**False** - Itchy skin that can lead to scratching and further sores and infection is an observable effect of crystal meth use.

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**True** - The body breaks down methamphetamine more slowly than other stimulants, so the high lasts longer. This may also be the reason methamphetamine seems to cause more damage to the brain and body.

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**True** - To make crystal meth requires a number of toxic ingredients that cause cancer, burn skin on contact and damage vital organs. Some of the chemicals are flammable and can cause explosions and fires. When the manufacturers move on, they often leave behind a contaminated site; others who enter may suffer resulting health problems.

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**False** - Taking crystal meth with other drugs, including alcohol, greatly increases the risk of overdose and death.

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**True** - Crystal meth acts on the "pleasure centres" of the brain, increasing the activity of dopamine and serotonin. This can change a person's mood and mental state, including aggression, anxiety, depression, and suicidal thoughts.

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# Truth or Tale Teacher's Answer Sheet

1. **False** - Crystal meth is made from simple chemicals; it is a synthesized substance. (Ah Shene, 2003b).

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2. **True** - Crystal meth is most commonly prepared from ephedrine and pseudoephedrine and other available ingredients. (Ah Shene, 2003b).

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3. **False** - Crystal meth is a stimulant drug; that is, it speeds up central nervous system functioning. (AADAC, 2003b).

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4. **False** - Crystal meth is the smokable form of methamphetamine, a drug first synthesized in 1893. (Ah Shene, 2003b).

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5. **True** - Crystal meth is a synthesized drug usually made in illegal labs. Those who "cook" the drug may not be skilled, and you cannot predict what is in it. (AADAC, 2002a).

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6. **True** - Like all stimulants, crystal meth speeds up the body and mind. However, the crystal meth high lasts longer than the high from cocaine. (Ah Shene, 2003b).

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7. **False** - Alcohol continues to be the most commonly used drug in Alberta. (Ah Shene, 2003a).

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8. **False** - Violent and aggressive behaviour can be an effect of crystal meth use; however, alcohol is the drug most associated with violence. (Ah Shene, 2003a).

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9. **False** - Crystal meth is a highly addictive substance, which produces extreme cravings. However, it is difficult for reliable research to give an exact number to describe the addictive potential of a drug. (Ah Shene, 2003a).

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10. **False** - Even when made in a reputable laboratory, crystal meth is a dangerous and addictive drug. When it is made in illegal and unregulated "drug labs," it is even more dangerous, because it is impossible to know what the strength of the drug is and what harmful impurities there are. (AADAC, 2002a).
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11. **False** - Crystal meth is illegal and possession can result in criminal charges. (AADAC, 2003b).
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12. **False** - In 2016–17, only 1.2% of Alberta youth in grades 7 to 12 had used methamphetamine in the past year (Health Canada, 2018a). The most widely used drugs by young people continue to be alcohol and cannabis.
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13. **True** - The desired effects of crystal meth include high energy, high self-esteem, lack of fatigue, and wakefulness. In withdrawal, the person is likely to experience low energy, anxiety, paranoia, depression, extreme fatigue and loss of motivation. (AADAC, 2003e)
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14. **False** - Though there are many common symptoms, withdrawal can vary, depending on the amount used and the frequency of use. Every person is different, with a different potential for addiction that is dependent on a number of factors. (Anglin et al., 2000)
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15. **True** - Crystal meth does have many of the same effects as other stimulants, but may also cause permanent damage to the brain. (AADAC, 2003b)
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16. **False** - Fatigue and sleepiness are not effects of crystal meth itself, but side effects of coming off the drug. Because the user's body has been at an elevated state for a prolonged amount of time, and because the body cannot sustain that level, it needs to rest and slow down. Sleeping for one to three days ("the crash") after binging is common. (Brands et al., 1998)
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17. **True** - People who use crystal meth regularly (low or high doses) have trouble sleeping. When they do sleep, their sleep is disturbed and they wake up often. Regular high-dose use can lead to paranoid behaviour, severe agitation and social isolation. (Brands et al., 1998)
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18. **True** - Because of the desired effects of the drug, crystal meth is often used in the club scene. (AADAC, 2002a)
- 
19. **True** - Anytime a drug is used in the smokable form, lung damage can result. (AADAC, 2002a)
- 
20. **False** - Babies exposed to crystal meth in utero are more likely to be born prematurely, have low birth weight, and may experience withdrawal symptoms. (AADAC, 2003a)
- 
21. **True** - Feelings of power and superiority are desired effects of using crystal meth; hostility and aggression also occur. (AADAC, 2003a)
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22. **False** - Itchy skin that can lead to scratching and further sores and infection is an observable effect of crystal meth use. (AADAC, 2003d)
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23. **True** - The body breaks down methamphetamine more slowly than other stimulants, so the high lasts longer. This may also be the reason methamphetamine seems to cause more damage to the brain and body. (AADAC, 2003c)
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24. **True** - To make crystal meth requires a number of toxic ingredients that cause cancer, burn skin on contact and damage vital organs. Some of the chemicals are flammable and can cause explosions and fires. When the manufacturers move on, they often leave behind a contaminated site; others who enter may suffer resulting health problems. (United States Department of Justice, 2003)
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25. **False** - Taking crystal meth with other drugs, including alcohol, greatly increases the risk of overdose and death. (AADAC, 2002a)
- 
26. **True** - Crystal meth acts on the "pleasure centres" of the brain, increasing the activity of dopamine and serotonin. This can change a person's mood and mental state, including aggression, anxiety, depression, and suicidal thoughts. (Wolkoff, 1997)
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