

YOUNG PEOPLE AND DESIGNER DRUGS



DESIGNER DRUGS

Several new substances have emerged on the market over the past few years, and others have resurfaced. We're talking about designer drugs, which are very popular at parties and raves. They are also found in other areas, but how much do you know about them?

You have probably heard about speed, ecstasy, and crystal meth, among others. Designer drugs are often described as "new" or "trendy". They may arouse curiosity among you or your friends. Some people say that they are cool, and that they produce spectacular or even "mind-blowing" effects. But what exactly are designer drugs?

This document discusses the substances that are encountered most frequently, including amphetamines, methamphetamine, ecstasy, GHB, and ketamine. It talks about their effects, and the risks that are associated with these drugs.

**Designer drugs...
Let's talk
about it!**

Produced by the **Service de toxicomanie of the Ministère de la Santé et des Services sociaux**, in conjunction with:

• **GRIP Montréal**

To obtain a copy of this document, send your request by e-mail to: diffusion@msss.gouv.qc.ca

by mail to:
**Ministère de la Santé et des Services sociaux
Direction des communications
1075, chemin Sainte-Foy
Québec (QC)
G1S 2M1**

This document is available in the "Documentation" section of the website of the ministère de la Santé et des Services sociaux, at the following address: www.msss.gouv.qc.ca.

Masculine pronouns are used generically in this document.

Legal deposit
Bibliothèque nationale du Québec, 2007
National Library of Canada, 2007
ISBN 978-2-550-50185-5
ISBN 978-2-550-50186-2 (PDF version)

Ce document est disponible en français sous le titre ***Les jeunes et les drogues de synthèse.***

This document may be reproduced in whole or in part as long as the source is given.

© Gouvernement du Québec



A LITTLE HISTORY

Designer drugs have been around for decades. In fact, ecstasy, which is also known as MDMA, dates back to 1912, long before you were born!

These substances are usually developed by pharmaceutical companies, but the companies choose not to market them because their side effects are considered to be too severe, or because they do not produce any medicinal benefits. Other substances, like ketamine, are used in human or veterinary medicine.

The difference with today's designer drugs is that they are being widely used by people who take them just for fun. But is it really just for fun?

DESIGNER DRUGS – WHAT ARE THEY?

The expression "designer drugs" is used to designate chemical molecules that are created in a laboratory, as opposed to substances that come from nature.

For instance:

Marijuana is a drug that comes from a plant (*cannabis sativa*), which is harvested and not processed at all.

Cocaine and heroin also come from a plant, after the substance that affects the brain is extracted.

Designer drugs are produced by "cooks", which is the term that is used for the chemists who work "underground". While manufacturing these drugs, the cooks face huge risks, including explosion or fire, not to mention the considerable environmental pollution that they produce.

COMPOSITION OF DESIGNER DRUGS

Unlike designer drugs, the composition, production, and sale of legal drugs (alcohol, tobacco, and medications) is strictly governed by law. For example, the label on a bottle of alcohol lists the contents, the origin, and the percentage of alcohol.

Designer drugs used for recreational purposes are illegal. No matter what their shape, colour, or origin, it is impossible for the user to know exactly what is in them.

Any dose can contain:

- the desired substance in its pure state;
- the desired substance mixed with other products;
- a completely different substance from what was desired.

This means that the effect can be:

- non-existent;
- exactly what was expected, or at least similar;
- extremely severe – dangerous to the user, or even toxic.



THE LAW OF EFFECT (E=PIC)

Every person is different. Each person's experience when taking a drug is affected by their body, their mental state, the drug or product that is consumed, and the context. This is known as the Law of Effect (E=PIC).

Because it is not possible for the user to know what a designer drug really contains, it is also not possible to know what the effects will be.

Here are some of the factors that influence the effects of designer drugs:

The product (P):

- Quantity;
- Purity;
- Frequency of consumption;
- Tolerance to the product;
- Method of administration (ingested, smoked, injected, etc.);
- Combination with other products;
- Etc.

The individual (I):

- Height;
- Gender;
- Weight;
- State of physical or psychological health;
- State of mind;
- Past experiences;
- Etc.

The context (C):

- Location;
- Ambiance;
- Companions;
- Time of day;
- Etc.



AMPHETAMINES

Speed, pills, etc.

Amphetamines are found in the form of capsules, powder, or pills of various colours or shapes. They are often engraved with logos, which are constantly evolving.

Common physical and psychological effects:

Amphetamines produce a euphoric and stimulating effect, which means that they cause energy surges or a sense of physical and mental strength and well-being. They decrease the appetite and lessen the awareness of fatigue. They heighten vigilance and cause euphoria, logorrhoea (verbal diarrhea), agitation, and insomnia.

Amphetamines can also cause fever, heart problems, bruxism (grinding of the teeth), and nervous tics.

In some cases, when they are taken repeatedly or in high doses, amphetamines can cause convulsions, and even death.

Anxiety, hallucinations, irritability, panic, and mood swings are all possible side effects of amphetamines. Consumption can sometimes cause disorders such as paranoia or psychotic conditions (confusion, disorientation, delirium, and hallucinations).



METHAMPHETAMINE

Speed, meth, crystal meth, ice, etc.

Methamphetamine is commonly produced in the form of tablets (speed), capsules, powder, or crystals (crystal meth). Methamphetamine is often cut into drugs that are sold as speed or ecstasy!

Common physical and psychological effects:

When taken in small doses, methamphetamine produces euphoric and stimulating effects similar to those caused by amphetamines. However, methamphetamine is more powerful than amphetamines, and its potential to create dependency is higher.

Methamphetamine can also cause tremors, mental confusion, increased body temperature (hyperthermia), chest pain, hypertension, cardiovascular disorders, and convulsions.

The psychological effects of methamphetamine use are similar to those caused by amphetamines, including anxiety, hallucinations, irritability, panic, and disorders such as paranoia or psychotic conditions (confusion, disorientation, delirium, and hallucinations).

It is important to note that, because of the intensity of its

effects, methamphetamine can cause a state of overall exhaustion, aggression, and depression that can lead to suicidal thoughts.

Crystal meth

Pure methamphetamine is called crystal meth. It is produced in the form of crystals, which is why it is called crystal meth.

Beware! It is an established fact that regular users of amphetamines and methamphetamines can develop a dependency that is similar to cocaine addiction.

ECSTASY OR MDMA

E, XTC, pill, etc.

3,4-methylenedioxymethamphetamine (MDMA) first became popular with the onset of raves and the techno music trend. MDMA is a derivative of amphetamines, with the original molecule (amphetamine) having gone through so many changes that the stimulating effect has given way to hallucinogenic properties. MDMA is normally produced in the form of pills or capsules.

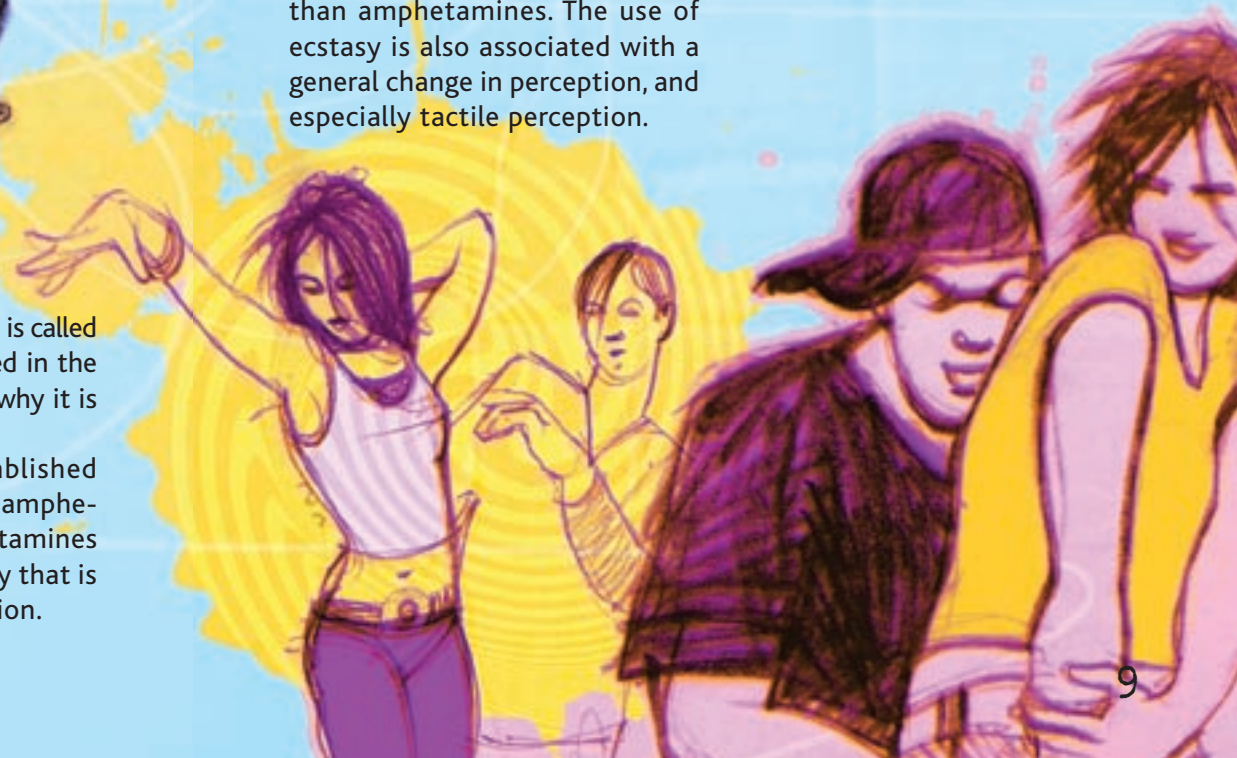
Common physical and psychological effects:

Ecstasy produces a stimulating effect similar to but less intense than amphetamines. The use of ecstasy is also associated with a general change in perception, and especially tactile perception.

Ecstasy can also cause severe hyperthermia (fever), dehydration, and urinary retention (it becomes impossible to empty the bladder). It is also extremely toxic to the liver.

MDMA is known for its empathogenic properties, which means that it gives users the impression that they can feel what other people are feeling.

Ecstasy can also cause sleep and memory disorders, and once its euphoric effect has worn off, depression sets in, which can last a long time in some people.



GHB

G, GH, juice

Gamma-hydroxybutyrate, or GHB, is produced in the form of powder or capsules, or as a clear odourless liquid. It sometimes has a slightly salty and soapy taste that disappears when it is mixed in a drink. You should be aware that a similar substance, called GBL (gamma-butyrolactone), is sometimes passed off as GHB, but the effects of GBL are more toxic.

Common physical and psychological effects:

GHB acts as a central nervous system depressant, which means that it slows down the various systems in the human body, including respiration, cardiac activity, locomotion, etc. GHB causes the user to relax so much that, according to some people, it has the same effects as drinking alcohol when taken in low doses.

However, GHB can also cause drowsiness, difficulty coordinating movements, pronunciation problems, vomiting, headaches, general anaesthesia (loss of consciousness), convulsions, hallucinations, a slow heart rate, low blood pressure, and difficulty breathing.

GHB causes a loss of inhibitions (eliminates shyness), decreased anxiety, and euphoria. It can also cause temporary amnesia (memory loss). If a user stops taking it abruptly, it can cause anxiety, insomnia, tremors, and muscle cramps.



KETAMINE

K, Ket, Special K

Ketamine is produced in the form of powder, liquid, or sometimes as a pill or capsule that is passed off as speed or ecstasy, although this is more rare.

Common physical and psychological effects:

A true anaesthetic that is used in human or veterinary medicine, ketamine disrupts the central nervous system, alters perception, and can cause hallucinations.

Ketamine users feel as though they are floating. This drug also causes disorientation, nausea, and dizziness, as well as anaesthesia (loss of sensitivity). It produces an analgesic effect (insensitivity to pain) and severe paralysis, while preserving a state of consciousness known as a K-Hole. BEWARE! This state is associated with a high risk of injury.

Ketamine can cause dissociation between body and mind, hallucinations (especially visual), amnesia, aggressive conduct, and paranoia. It can also cause anxiety, a sense of panic, and a state of psychosis (confusion, disorientation, delirium, and hallucinations).



POTENTIALLY EXPLOSIVE COCKTAILS!

Mixing designer drugs together or mixing them with other substances (such as alcohol) or medications such as antibiotics, antidepressants, cold medications, Ritalin, etc. can be very dangerous.

If the mixture produces:

- a combination of the effects of the two substances, this cocktail could cause an effect that is too powerful for your body to handle.
- a multiplication of the effects of the substances that are consumed, which means that the overall effect is more powerful than the sum of the effects of each substance, this overall effect is invariably extreme and impossible to predict.

For example:

Mixing GHB and alcohol can cause breathing problems, amnesia, a coma-like state, and ultimately death.



HAVING A DRUG PROBLEM...

The following are signs that someone may have a drug abuse or dependency problem:

- He or she spends a lot of time thinking about using drugs; or actually using, buying, or trying to find the money to buy drugs; or recovering from the effects of using drugs;
- He or she is no longer interested in favourite things, recreational activities, or friends who do not use drugs;
- He or she wants to reduce or control his or her using habits but can't seem to do it;
- He or she is taking more drugs more often;
- He or she uses drugs to feel better;
- He or she feels guilty for using.

Some young people may not develop a problem of abuse or dependency, but they still experience negative consequences after using certain products. Here are some examples:

- A sexually transmitted infection or blood-borne infection;
- An unwanted pregnancy as a result of unprotected sexual intercourse;
- Injuries as a result of a fight or accident;
- Health problems (digestive disorders, overdose, nasal irritation, etc.);
- Psychological problems (distress, anxiety, depression, suicidal thoughts, etc.);
- Problems at school (absenteeism, poor motivation, suspension, falling grades, etc.);
- Relationship problems with friends and family.

SOME PEOPLE MAY BELIEVE THAT THESE SUBSTANCES HAVE BENEFITS... BUT THERE ARE ALSO DRAWBACKS

Drug users are sometimes looking for specific effects when taking a drug, but there are two sides to every story. These are the drawbacks that we often tend to forget...

Health

As we saw with the Law of effect (see P. 6), every person reacts differently, both physically and psychologically, when they take a given substance.

But...

A person who has a heart or respiratory disorder, epilepsy, or a mental health condition like depression, sometimes without even knowing it, is more vulnerable. In a case like this, the user is at even greater risk.

Physical sensations

Some substances cause us to be less aware of fatigue, hunger, pain, etc.

But...

The body still needs rest, and pushing it to the very limit can have consequences. The body will eventually react and defend itself.

MAGICAL THINKING

Users might forget their problems and concerns, and are sometimes looking for a sense of well-being and a feeling of having their head in the clouds.

But...

When they come back down, they realize that their life is exactly the same as it was, and that escaping is not a long-term solution.

Friends

Using designer drugs can make it easier to meet people or to fit in with a group.

But...

When friends are only around when it's time to use drugs, it may be time to question the real value of their friendship.



DESIGNER DRUGS AND THE LAW

Like all other illegal drugs, designer drugs are governed by a Canadian law called the *Controlled Drugs and Substances Act*, which states that possession, trafficking or possession for the purpose of trafficking, production, and the import and export of designer drugs are illegal.

Penalties and punishments vary depending on the substance involved and the severity of the offence. It is also important to remember that possession of a small quantity of designer drugs can result in a severe penalty and a criminal record.

In the case of teens (aged 17 and under), the legal process is governed by the *Youth Criminal Justice Act* (YCJA). According to this Act, a teen who is found guilty of a crime is given a criminal record, which remains in the individual's file within the various organizations that are responsible for upholding the law, even after the file is closed.

Having a criminal record can have long-term repercussions, including not being allowed to enter certain countries, such as the United States.



DESIGNER DRUGS AND DRIVING

Driving a vehicle while impaired is considered to be a violation of the *Criminal Code*. Like alcohol and cannabis, designer drugs can affect the user's ability to drive a car. Among other things, using designer drugs can affect the driver's motor coordination and attention level. They can also increase reaction time.



FREQUENTLY ASKED QUESTIONS

Do drugs really “kill” cells?

Designer drugs do not literally “kill” cells, but they do damage certain parts of the brain, sometimes permanently. In addition, because nobody really knows what is in them, it is impossible to determine the actual level of toxicity. You can never know for sure what you are taking, so be careful!

Why is GHB called the rape drug?

There is not just one rape drug. There are many drugs that may make a person vulnerable, including GHB and alcohol. Because these substances alter a person’s senses or physiological or psychological condition, and can sometimes cause memory loss, they are often taken by the aggressor and the victim during a rape or other crime.

Why does speed have fewer effects on me now than it did before?

There are several possible explanations, including:

- The nature of the drug: is it really speed?
- The quantity: one pill may contain a dose that is stronger or weaker than another.
- Tolerance: your body is “used” to speed, even though its toxic effects have not changed.

Is it true that designer drugs are not “ecologically friendly”?

Yes. For example, five to six kilograms of toxic waste are released into the environment through the toilet or the sink in the production of one kilogram of methamphetamine (crystal meth). As a result, locations that serve as underground laboratories must be decontaminated after use... This is not very ecologically friendly!

WHAT CAN INCREASE THE RISKS?

Using designer drugs is always risky, but this risk level can increase if:

- you take large quantities;
- you combine substances;
- you take them too quickly;
- you are in a warm location;
- you are dressed warmly, and are wearing a tuque in a heated location...

All of these things increase your risk level!

**Not using is
the best way
to avoid the
risks!**

LET'S TALK ABOUT IT...

If you think you may have a drug problem, or if you want to help out a friend, don't hesitate to talk to an adult whom you trust: a family member, someone who works at your school or at your teen centre, a teacher, a nurse, a social worker, a coach, etc.

You can also contact the health and social services center (CSSS) in your area, and ask to meet with someone who can direct you to the appropriate resource.

In Québec, there are several types of services that specialize in substance abuse among youth. They are there to help you.



Need help or information? You can contact:

Tel-Jeunes

Montréal and surrounding area: 514-288-2266

Elsewhere: 1-800-263-2266

Toll-free, confidential service

24 hours per day, 7 days per week

www.teljeunes.com

Drugs: Help and Referral

Montréal and surrounding area: 514-527-2626

Elsewhere: 1-800-265-2626

24 hours per day, 7 days per week

Other sites:

www.dependances.gouv.qc.ca

www.parlonsdrogue.com

www.gripmontreal.org



BIBLIOGRAPHY

AGENCE DE LA SANTÉ ET DES SERVICES SOCIAUX DE LA MAURICIE ET DU CENTRE-DU-QUÉBEC (2006). *Les amphétamines*, Gouvernement du Québec.

CANADIAN CENTRE ON SUBSTANCE ABUSE (2005). *Factsheet: Methamphetamines*, Toronto.

DUBÉ, G., PICA, L., MARTIN, I. & ÉMOND, A., (2005). *Enquête québécoise sur le tabac, l'alcool, la drogue et le jeu chez les élèves du secondaire*. Québec : Institut de la statistique du Québec.

Fallu J.S., Rehm, J. & Zähringer, S. (2003). *Recension des écrits sur les drogues de synthèse en Europe avec un regard de plus près en Suisse et ses pays voisins : pharmacologie, prévalence, profils, facteurs de risque, méfaits et prévention*. Rapport de l'Institut suisse de recherche sur les addictions à l'Office fédéral de santé publique.

GOUZOU LIS-MAYFRANK, E., DAUMANN, J. (2006). *Neurotoxicity of methylenedioxyamphetamines (MDMA; ecstasy) in humans: how strong is the evidence for persistent brain damage?* *Addiction*, 101, 348-361.

LEBRUN, M-C., FRADETTE, J., FALLU, J-S. (2002). *Consommation de drogues de synthèse : effets, risques et pistes d'intervention*, L'Intervenant.

LÉONARD, L., BEN AMAR, M. (2002). *Les psychotropes-pharmacologie et toxicomanie*. Presses de l'Université de Montréal.

DEPARTMENT OF JUSTICE CANADA. (February 16, 2007). *Controlled Drugs and Substances Act*. [online: <http://laws.justice.gc.ca/en/ShowDoc/cs/C-38.8///en?page=1>].

DEPARTMENT OF JUSTICE CANADA. (February 16, 2007). *YCJA explained: resource manual for police*. [online: <http://www.justice.gc.ca/en/ps/yj/repository/workbooks/police/records/periods.html>].

PERREAULT, N., BÉGIN, H., MICHAUD, J., & DENONCOURT, I. (2006). *Drogues du viol et agression sexuelle : perception des jeunes du milieu collégial, Drogues, santé et société*, vol.4, no 2, 177-209.

RICHARD, D., SENON, J-L. & VALLEUR, M. (2004). *Dictionnaire des drogues et des dépendances*. Paris, Larousse.

HEALTH CANADA AND ROYAL CANADIAN MOUNTED POLICE (2004). *Drug Analysis Report on Designer Drugs Seized in Québec*.

msss.gouv.qc.ca

*Santé
et Services sociaux*

Québec  
 

06-001-32A