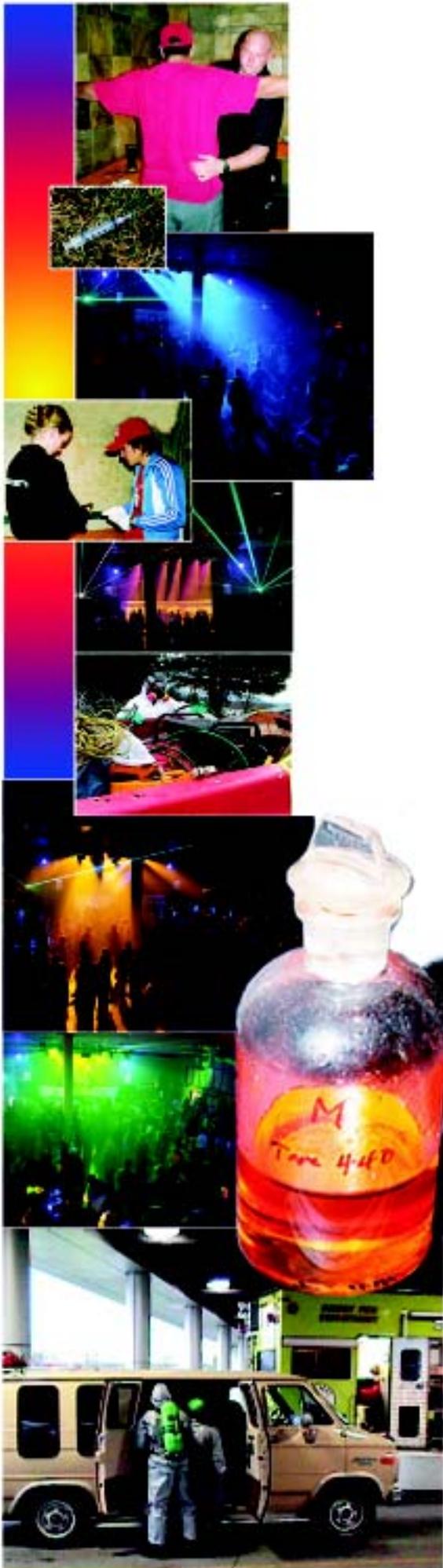




Designer Drugs and Raves

A HISTORY OF



Acknowledgements

This book would not have been possible without the assistance and contributions of the following individuals and organizations:

National Crime Prevention Council
ADIC
RCMP Drug Awareness Service, Vancouver
UBC Faculty of Pharmaceutical Sciences - Dr. Keith McErlane,
Karen Lo, Katie Ma and Rahim Kanji
Wayne Jeffery, RCMP Forensic Toxicologist
Scott Blessin, ER Plus Safety Services Inc.
Doug Culver, Cpl.
Russell Peel, UCFV
Professors Darryl Plecas and Yvon Dandurand, UCFV
Jenn Paul, UCFV
Salim Lakhani, Swing Kids Productions
Mike Leonard, Publishers Group, 2000
Scott MacKilican, photographer
Natasha Maxwell, BSc.



DESIGNER DRUGS AND RAVES Second Edition

Cpl. Scott Rintoul, RCMP Drug Awareness Service
Christy MacKilican, BA, RCMP Drug Awareness Service

Published by Addictive Drug Information Council (ADIC)

phone: (604) 264-2342
fax: (604) 264-2649

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Foreward

Today's youth are faced with numerous challenges. Unfortunately for many, one of these challenges will be the decision whether or not to experiment with drugs. Designer chemical drugs, frequently referred to as club drugs, are now readily available and not restricted to rave parties. The lack of accurate information concerning these drugs has contributed to the problem, both from an enforcement and prevention perspective.

The RCMP Drug Awareness Service, in concert with the Addictive Drug Information Council (ADIC), is committed to making our communities safe and healthy and to educate the public about designer chemical drugs and the consequence of their use.

In early 2000, the Drug Awareness Service of British Columbia published their first reference guide on this subject, Designer Drugs and Raves. Due to the high demand for that booklet and the rapidly changing drug scene, the Drug Awareness Service has now publish this new updated version.

Information contained in this booklet is based on the findings of an ongoing Drug Awareness intelligence probe into the rave scene and use of club drugs the Greater Vancouver Regional District.

The newly updated information package is intended to help educate police officers (both drug awareness and drug enforcement), and workers in the prevention field about the potential dangers of club drugs and the related threat to our youth. I encourage you to become familiar with this material and do what you can to help reduce the harm associate to substance abuse.



Richard Barszczewski, Insp
A. Officer in Charge
Drug Enforcement Branch
"E" Division



Preface

This is the second edition of a report on club and rave drugs, the production of which was stimulated by a demand for more information about this category of drug use. The drugs described in the report mostly have stimulant and/or hallucinogenic effects - although a few do not - and are often being used in combinations. The trend of increased use of stimulant/hallucinogen drug combinations in greater Vancouver has been concurrent with that occurring in other North American jurisdictions and elsewhere. As the authors of Designer Drugs and Raves point out, we need to consider a wider group of related drugs as well as settings other than raves so that we can better appreciate the risks of harm to which drug users and others are exposed.

As many of the drugs described in this report can be produced in clandestine labs with little chemist expertise, the significant demand for these drugs leads not only to use of specific drugs that are sought after - such as Ecstasy - but also results in street drug variability in purity and dose, and adulteration with other drugs that aim to mimic desired effects or side effects. The drug user is often not aware of what they are consuming. A knowledge base of the drugs that may be used in various settings is useful to those who may need to respond to situations arising from drug use that can result in harm to individuals.

This report provides a good knowledge base for club and rave drugs in the lower mainland of BC.

Mark McLean MD, MSc, FRCPC
Associate Medical Health Officer
Vancouver/Richmond Health Board



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Introduction

For three years now, the RCMP 'E' Division Drug Awareness Service has been conducting an intelligence probe into the Rave scene and chemical drugs. This has involved attending more than eighty raves, seizing drugs, working with security companies, first aid attendants, venue owners, promoters, ravers, and informants involved in the scene, and analysing media and research. A major component of this probe has involved testing samples of drugs confiscated from various rave events by security and police personnel. This has been done with the assistance of the RCMP Forensic Toxicology Labs and the University of British Columbia Faculty of Pharmaceutical Sciences. Out of this work has come presentations, brochures and now this information guide. The majority of the information contained in this book comes from the probe.

It is important to be knowledgeable about the rave scene, but also to be aware that chemical drug use is not isolated within this scene. These drugs are used anywhere from house parties to nightclubs to high schools and college and university campuses. Unfortunately, there is a lot of misinformation circulating about chemical drugs, particularly on the internet. Much of this information focuses on “safe” use of the drugs and promotes the belief that drugs such as Ecstasy are benign. Many individuals and organizations promote the use of these drugs for various reasons. This publication presents a non-biased, fact-based perspective.

Throughout this intelligence probe, numerous trends have emerged. These are discussed in detail throughout this publication. The rave and chemical drug scene is constantly changing. The fashions and music associated with rave events are becoming more mainstream, as are drugs once associated primarily with this scene. One major concern within this drug scene is the practice of polydrug use: using a second substance to renew or enhance the high of the original drug taken. Another concern is that drugs are being sold as ecstasy, when in actuality they are a mixture of substances, or another chemical drug. Drug dealers are not concerned with the safety of the users, only with making money and gaining customers. They will mix and sell any substance that is profitable. Currently, in attempts to deal with drugs and associated problems, many cities are looking to ban or regulate rave events.

Rave parties and chemical drugs are by no means a problem isolated in the Greater Vancouver Regional District, BC, or Canada; they are international phenomenons. The United Nations International Narcotics Control Board Report for 2000 (www.incb.org/e/ind_ar.htm) discusses these issues. It states that there is increasing abuse of MDMA in Canada which will result in increased deaths due to use of the drug. The report also discusses illicit MDMA and Methamphetamine labs which are often found in suburban neighbourhoods. The report also discusses the current focus on “harm reduction” and “drug testing” which sends an unclear message implying there is a possibility for “safe use” of these drugs when in actuality there is not. Chemical drugs are not benign; it is essential to be aware of their dangers.



Raves

The Rave - an overview of the phenomenon and related issues

What are they?

Rave parties can be described as many different things. Most notably, they are all night dance parties with loud techno or industrial music. Rave culture is very diversified, which makes it attractive to many youth, despite class or ethnic background. Unfortunately, drugs have become a very popular part of this culture as they can provide the feelings of openness and peace associated with the rave scene. They also provide the stimulation and energy levels needed to dance and participate all night. Recent rave-related deaths in Canada have raised the possibility of raves as a health hazard.¹ The origin of raves in Europe caused the stereotypical definition of a rave as a drug-saturated event. However, the evolution of raves is beginning to change this stigma. *Not all rave goers participate in drug use.* The fact that drugs are available at these events means they are a concern and awareness is necessary.

Rave culture has infiltrated today's popular culture through fashion, music and venues. Rave parties are increasingly moving into legal venues, particularly rave nightclubs in London and New York. Also, the music is going mainstream through use in movies, radio play on top 40 stations and use in advertising.² Just as the culture has become widespread, so has use of the drugs which were originally associated with raves. Designer drugs are used anywhere from nightclubs to college and university campuses, and house parties.

A designer drug is one made by slightly changing the structure of a controlled substance, thereby producing a chemical analog of the original drug. Synthetic drugs are those produced entirely by chemical laboratory reactions, whereas semi-synthetic drugs are those prepared by chemically modifying naturally occurring substances. Many designer drugs are produced, but only those that incorporate a unique blend of physical and psychoactive effects become sought after within the rave culture. A chemist's [illegal] objectives are to design new drugs that are more powerful and encompass this desired blend of effects. There are two general categories of designer drugs: the fentanyl analogues, which are heroin-like, and amphetamine related drugs, which are often known as methylated amphetamines, hallucinogenic amphetamines, or phenethylamines.³ Most designer drugs popular among ravers fall into the Phenethylamine category (i.e., MDMA, MDA, etc.).

As Rieder points out, clinicians and others in the emergency medical field need to be aware of Ecstasy (and other drug) use and its effects. Emergency room physicians are often the first to come into contact with someone suffering rave induced physical reactions such as hyperthermia, dehydration, electrolyte imbalance and drug use. After assessing the patient's ABCs and core body temperature, levels of consciousness and hydration need to be evaluated. Physicians should also be alert to the possibility of sexual assault.⁴

Rave events typically begin about 10:00pm and continue into the next morning, until about 8:00am. Visual aids such as laser and light shows, and glow sticks along with steady pounding music (0 to 400 beats per minute average of around 130 BPM) aid in an experience known as "synesthesia," a blending of the senses that causes users to hear colour and see music while under the influence of drugs. The main hours of a

rave are conducive for stimulatory hallucinogenics such as MDMA (known as Ecstasy, the most desired rave drug) and MDA. This is because of their mind-altering effects and endless energy supply, and the way they create feelings of *peace, love, unity and respect*; these latter four ideas are collectively known as PLUR which is an underlying theme to most raves.

The early hours of the morning at a rave give way to a different atmosphere in which the beat slows and the drugs change from stimulatory drugs to the hallucinogens (cannabis, LSD, mushrooms and sedatives/narcotic analgesics such as Valium, Advam, Codeine and Zamax). These drugs play the role of easily bringing down the high or stimulation ("sleep and chill"), thereby relieving the user from experiencing a sudden crash. After parties and after hours rave clubs also exist for this purpose; these may be house parties, beach gatherings or illegal clubs (unlicensed venues) that carry on in the morning after the rave is over. Legal clubs, such as *Sonar*, *White Sandz* and *7 Alexander* in Vancouver, are licensed clubs that operate during regular hours, sell alcohol and feature DJs and rave music.

Raves have made a concentrated effort to please the drug user under the influence. However, the music is of the highest quality with DJs from around the world; this alone is an attraction for those just wanting to dance and have a good time without the involvement of drugs.

Admission to these events is anywhere from \$10 advance to \$50 + at the door, which is similar to the cost of a rock concert or music festival. There are no age restrictions at these events, although some cities are considering bylaws which impose a minimum age. Alcohol cannot be purchased at organized, indoor raves. The absence of alcohol creates a relaxed atmosphere and, ultimately, a general lack of violence. This is in tune with the rave culture ideal of PLUR. This seems to be changing, however, with the increased popularity of "hip hop" music which is more nightclub oriented and therefore associated with consuming alcohol. Many outdoor raves and rave-themed private parties are also seeing an increase in alcohol consumption.

Indoor raves can attract between 300 - 5,000 people. Safe venues for these events include wedding halls, banquet halls, cultural centres and night clubs. However, not so safe venues include warehouses, old vacant buildings, and barns that do not have the ability to allow for emergency exits if needed. Outdoor Raves in BC have had attendance numbers from 1,000 up to 12,000 attendees as recently experienced in Chilliwack on August 26 of last year.



Raves - continued

RAVES – (cont'd from page 5)

Drug use is of a major concern to police. Any drug has the potential to cause problems, accidents and even death. All drugs modify brain function. Ecstasy affects the neurotransmitters in our brain called Dopamine and Serotonin. The modification of these neurotransmitters is directly related to feelings of euphoria and mood. The degree of harm from the use of these chemical drugs is not known at this time. Further scientific research is required. Experts in the field of addiction fear the worst stating that neurotoxicity can result from the recreational use of Ecstasy or other similar chemical drugs. (See Appendix IV) An overdose that could result in death is just the beginning. Other recognized concerns are driving while under the influence and dehydration, not to mention the future negative effects of drug use. Long-term usage of ecstasy has been linked to serotonin depletion, which has been linked to depression and suicide. The real danger of these designer drugs is the fact that users feel they are in control. Even with occasional or weekend use, users become addicted to the lifestyle.

An alarming trend surfacing now is the number of poly drug users while under the influence of Ecstasy. Many users will consume Methamphetamine, Marijuana, Magic Mushrooms (Hippy Flipping), LSD (Candy Flipping), GHB (Gamma Hydroxybutyrate), Ephedrine and/or Ephedra in combination with Ecstasy. Ecstasy users, and others, are also consuming large amounts of vitamins, herbal supplements and legal stimulants such as caffeine. The danger with this is that they are not following recommended dosages, but taking large amounts at one time, and believing this is safe. Also becoming popular recently are herbal "energy" drinks such as "Red Bull."

Also, drugs are sold and ingested without the user knowing what the substance actually is. The analysis of approximately 1,000 samples of suspected Ecstasy seized from rave parties over the past three years has confirmed many samples actually contained PCP, Ketamine, MDA and Dextromethorphan combinations mixed with Methamphetamine. All these drugs are sold as Ecstasy to unsuspecting buyers. The word Ecstasy is now synonymous for any chemical drug that has both a CNS stimulant and hallucinogenic property.

Bonded and certified Security Firms and First Aid professionals are being hired by the more reputable rave promoters to limit the amount of drug entry into these events and to attend to emergency situations. Police attendance in an enforcement role as well as assisting security when required is essential in ensuring safety for all. The rave scene is new and evolving. Organized, safe environments with the absence of drugs are the only way to attempt to gain public approval and support of these events.

Drugs that are associated to the Rave scene include stimulant and hallucinogenic drugs such as Ecstasy or MDMA (the most sought after hallucinogenic amphetamine chemical drug), MDA, PCP Ketamine and stimulant drugs such as Methamphetamine and Cocaine.

As a result of tolerance to certain drugs and/or the fact that Ecstasy is usually adulterated (less pure concentration), a disturbing trend today is poly drug use of hallucinogenic amphetamines such as Ecstasy and copy cat drugs including Phencyclidine and Ketamine. Users will knowingly or unknowingly use Phencyclidine and Ketamine in place of Ecstasy or will

use phencyclidine and Ketamine in combination with Ecstasy to enhance or prolong the experience. Ecstasy has a stimulant effect on its user. This stimulant effect is moderate to high, but it wears off after 1 - 3 hours. As a result of the effects of the stimulant properties wearing off many users who prefer the stimulant effects will also use Methamphetamine, Phencyclidine or Ketamine in attempts to maintain stimulation.

The prevalence of Ecstasy (and copy cat drugs that mimic the effects of Ecstasy including Phencyclidine, Ketamine and MDA) is now being seen in all communities and is becoming a recreational drug of choice for many youth who mistakenly believe or have been advised that Ecstasy is a benign drug. Unfortunately death has occurred in both Canada and British Columbia from complications involving Ecstasy and other related illicit drugs

The Raver

There is no set definition that all ravers fit into. Generally, there are drug users and non-drug users. The drug users tend to be younger in age and frequent the rave scene. Conversely the non-users are commonly older and tend to rave only once or twice per year, depending on the event. Raves attract people anywhere between the ages of sixteen to thirty and up, with the majority being between eighteen and twenty years old. Stereotypical ravers are known as Candy Ravers, Club Kids, Party Kids and Bar Stars.

The Candy Raver (see picture)

- ◆ a younger group
- ◆ originated in New York nightclubs
- ◆ dress in baggy clothes, wear candy necklace and jewellery, suck soothers, carry glow sticks, eat suckers, and wear stickers, sparkles and glitter
- ◆ takes on a Halloween aspect; they like to draw attention to themselves
- ◆ not all are drug users

The Club Kid

- ◆ wear expensive clothes, usually a lot of black or dark colours
- ◆ tend to hang out in gangs or groups
- ◆ drug use involves heroin, cocaine and alcohol
- ◆ week-night club parties

The Bar Star

- ◆ attend raves after clubs close

The Party Kid

- ◆ many do use, however they're into the scene for the music and the "vibes," not just the drugs
- ◆ listen to the music outside of raves



Rave Information

The local site www.loungex.com is a very comprehensive site, mainly geared toward providing information to the raver such as upcoming events, pre and post rave discussion and DJ profiles. This site also has a number of online message boards where ravers can discuss various issues. Another local website is www.teambardcore.com, which supplies a rave calendar, event photos and profiles of promoters and DJs. Another site is bcrave.com which provides a calendar, news and links to rave information. Two international sites focussing on the drug issues are www.dancesafe.com and www.ravesafe.com. DanceSafe operates in the GVRD, but the majority of their information comes out of the US. (For more information on these organizations see the *Safe Raves and Harm Reduction* section on page 42). One other site focussing on the drugs, Ecstasy in particular is ecstasy.org which provides info on MDMA, personal experiences, news and research. There is one local (GVRD) radio station with a program dedicated to rave music. The program is called "The G-Spot" and runs from midnight Friday to 6:00 a.m. on Saturday on 96.1 f.m. An excellent book on the evolution of rave parties and rave music in Europe and North America is *Generation Ecstasy: Into the World of Techno and Rave Culture* by Simon Reynolds.

Rave Music

Raves are associated with "techno" music, but this music is not exclusive to the rave scene. The rave scene developed out of an appreciation for techno and house music.⁵ "Techno" music was around before raves, starting in Detroit in the early 1980s developing out of disco, funk and rap.⁶ It is now part of mainstream listening. Many songs break Top 40 charts and receive regular airplay on popular radio stations and at nightclubs.

The music has also come to be associated with MDMA. This association is due to the "texture" of the music (the layering of various sounds and beats) and its repetitiveness, both of which coincide with the effects of the drug. This connection was unintended by the original creators of the music, but is emphasized by some of today's artists.⁶

"Techno" has become an all-inclusive term for a variety of electronic-based music styles. For an extensive overview of the various categories of "techno," look at *Isbkur's Guide to Electronic Music* on the web at www.newgrounds.com/frames.php?location=/portal/view.php?id=10479. This site gives a breakdown and brief description, as well as music samples, of many genres and their subcategories. The main types of "techno" are House, Trance, Jungle, Breakbeat, Techno and Hardcore, with subcategories including acid, hard, progressive, booty and anthem. Another good site with descriptions of the music plus an historical overview is www.plato.nl/e-primer.

As seen in the flyer on the next page, rave events showcase a variety of music types, often having a large main room along with smaller rooms. The genres of "techno" vary greatly in inclusion or not of vocals, the use of sounds, and the beats per minute (BPM). Ambient is atmospheric with BPM ranging from zero to seventy whereas Gabber can reach a BPM of 400, but is usually around 200. The average BPM of "techno" as seen in House, Trance and Jungle is around 130.⁷

Infrastructure of a Rave

Raves are an opportunity for promoters to make large amounts of money. Production companies are often operated by young entrepreneurs, eager to bring rave promotion into an industry of its own. As in any business, some operations are more professional than others. Many companies will hire security and first aid, and make every effort to comply with safety requirements; these companies are setting the standards for other operations to follow. Risk taking is a huge part of this business. Cost incurred for rave promotion include:

Location rental

- approximately \$1,000 to \$20,000 per event (i.e., banquet halls, outdoor field). Many locations require liability insurance, which is \$250 to \$500 a night for \$5 million coverage.

Security staff

- \$16 to \$20 an hour for a company, less if it is individuals.

Police

- Paid off-duty officers; expenses paid for by promoters.

DJ

- \$500 a night for a good local DJ. World famous DJs, such as Paul Oakenfold, Anne Savage Carl Cox or Lisa Lashes, can make more than \$1000 per night plus travel, accommodation and other expenses. A well-known DJ results in a greater attendance at the rave. The DJ is an integral part of the show, on par with bands at rock concerts. They create music by mixing up to four vinyl records together to create a sound of their own. Many of these DJs are world renowned and have worked with other artists such as Michael Jackson and Madonna.

Equipment

- \$1,500 to \$10,000+ for sound system and light equipment.

Concessions

- concessions maybe hired and profits shared. Profits from concessions can be quite substantial.

Advertising

- Flyers (see sample on page 8) advertise the company's logo, the date and the DJ line up. Unless the venue is new or exciting, they omit the location. Tickets are purchased at most alternate record stores for between \$10 and \$30. The location of the event is obtained by calling an information number on the flyer, beginning at 8:00pm on the night of the rave. Tickets at the door are between \$30 and \$50+ depending on the quality of the DJ and the location.





Rave Flyer

Vancouver-based companies who have publicly advertised as rave promoters:

G House Productions
www.summerlove.com
Conscious Groove
Swing Kids
ET Brothers www.etbros.com
Doh Boy Productions
Delicious Productions
Noble House
High End Productions www.high-endproductions.com
TLC (tender loving care)
Radiant Productions
Sweet
Pure Productions www.pure-productions.net
Exert Productions www.exertproductions.com
Miracle Productions crash.to/miracle
Twisted www.twisted.ca

RISK-FREE MDMA?

An internet search turns up many sites focussing on the “safe” use of MDMA or practices to “lessen” the risks. While most claim to neither promote nor condone drug use, they give tips ranging from wearing comfortable shoes to what supplements to take for enhancing your trip and minimizing the comedown. A common recommendation is to do only enough “E” to get high. The suggestions of what to eat and what supplements to take vary from one site to another; none of them are scientifically proven and all are based solely on personal experiences.

Preloading is the practice of what to ingest before dropping Ecstasy in an attempt to minimize the harm done to the body, while getting the most out of the drug. Recommendations include everything from eating a balanced meal, eating fruits and starches, avoiding oils and proteins, to not eating for 3-4 hours before dropping. Supplements suggested include CoEnzyme Q10, pantothenic acid, magnesium, 5-HTP, glutamine, Creatine, and a number of different vitamins. Vitamin C is an area of contention, with some saying take it to enhance Ecstasy’s effects and some saying not to as it will negate the effects of E.

Advice for what to take during a trip includes having a set eating schedule, as MDMA takes away appetite. Foods suggested are juice, fruits and simple starches. All sites caution about staying hydrated, but not overdoing it as this can cause hyponatremia. One site recommends drinking at least 500ml/hour and not more than 1000ml/hour.

Postloading is what to do to minimize the comedown from the Ecstasy high. As with preloading, there are numerous vitamins and supplements suggested. The most common is 5-HTP which supposedly replaces the serotonin depleted by Ecstasy. The use of Prozac (an anti-depressant) is also becoming common. Melatonin is also a common suggestion as it is meant to induce sleep.

Other “Safety” suggestions include knowing the dealer, being with someone who knows you’ve taken E, and having something comforting with you. A common suggestion is to have gum or a pacifier to deal with the jaw clenching and tooth grinding caused by MDMA.

All of these “safe” use suggestions are widespread and easily found on rave-related sites. None of them are proven to reduce the risks associated with drug taking.

Designer Drugs

All drug information in the following sections, unless otherwise stated, comes from these sources

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British Columbia.

MDMA 3,4-methylenedioxymethamphetamine "Ecstasy"

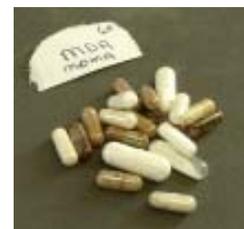
- Phenethylamine
- Stimulant with hallucinogenic properties
- Also known as 3,4-methylenedioxy-n-methylamphetamine

OVERDOSE CAUTIONARY AS REPORTED BY HOSPITAL EMERGENCY STAFF

BACKGROUND



MDMA is a synthetic amphetamine that falls under the Controlled Drugs and Substances Act (CDSA); it has been a restricted drug in Canada since 1976. It is structurally related to methamphetamine and mescaline. MDMA was first synthesized, but not marketed, in Germany in 1912 as an appetite suppressant. Some researchers believe MDMA can be used to increase the understanding of the human mind, as well as treat some mental illnesses; the drug was used to facilitate psychotherapy in the 1970s. There is currently no medical use for MDMA. Ecstasy is readily available [illegally] in many countries.



DESCRIPTION

(see colour section)

MDMA comes in tablets and capsules in a variety of colours, often with various scorings and logos. In its purest form, MDMA is a white powder, but with impurities it can vary from yellow or beige to a light brown or reddish colour. Users want tabs because they are seen as more pure (which is not necessarily true); caps are thought to be mixtures of various drugs, which they often are.

SLANG

Ecstasy, E, Love Drug, X, Adam, Clarity E-bombs

PACKAGING

Various quantities are found in regular pill bottles, foil packages, small plastic containers, zip lock baggies, candy containers or gum packages.

PRICE

\$20 to \$30 per capsule or tablet in Vancouver; \$30 to \$40 in the BC interior; \$25US in Bellingham, Washington.

CONSUMPTION

MDMA is taken orally (this is the most common method; the drug is taken in the form of pills or capsules), snorted this method is becoming popular among intense ravers), rarely injected, and can be used as a suppository ("hooping"). A dose of Ecstasy ranges from 50 to 120mg. Effects last from two to six hours, from a dose of 80 to 120mg.



Designer Drugs — continued

“Ecstasy” - con't from page 9

REACTIONS

Ecstasy creates feelings of wellbeing, energy and confidence; it also gives users a feeling of “personal insight.” It is a Central Nervous System (CNS) stimulant and hallucinogenic drug. Tolerance develops rapidly to the mental effects of Ecstasy. MDMA intensifies senses of touch and taste, and enhances interpersonal feelings. Use of Ecstasy leads to an increase in activity, which results in exhaustion and dehydration. Other effects include an increased heart rate, dry mouth and teeth grinding. Severe toxicity from MDMA include hyperthermia (overheating), tachycardia (abnormally rapid heartbeat), a breakdown of skeletal muscle with kidney failure, paranoia, anxiety and panic. (See Appendix IV for a summary of Ecstasy research and further resources.)

- MDMA is 60% stimulant and 40% hallucinogen.
- MDMA is a designer drug referred to as a methylated amphetamine or hallucinogenic amphetamine. It is the most popular and sought after designer drug in Canada.
- “Ecstasy has been shown to release serotonin and cause acute depletion of serotonin from most axon terminals in the forebrain.” (Julien, 1998: 358)
- Death has been directly related to the ingestion of MDMA. Death has resulted from kidney or cardiovascular failure induced by hyperthermia and dehydration. In March 1999, in New Westminster, British Columbia, a relatively healthy 21-year-old male died of a drug overdose at a rave party. He reportedly took two tablets of Ecstasy and three points of methamphetamine over a six to eight hour period. Death was from an overdose of methamphetamine.
- From 1998 to June 2000 in Ontario, fourteen people died from ingesting Ecstasy.⁸
- By 1997, there was a reported fifty-three deaths by acute toxicity from Ecstasy use in the UK.¹
- In 1994, the Drug Abuse Warning Network (DAWN) found 250 MDMA-related emergency department mentions from US hospitals participating in the study. In 1997, the number was 637, and 1,142 in 1998.⁹
- MDMA is a hallucinogenic drug with high doses; it is a psychedelic drug that alters consciousness. Extended use of Ecstasy leads to a “crash” resulting in depression, sleep, mental confusion and anxiety.
- A serious, but not focused upon, consequence of Ecstasy use is tooth damage. MDMA causes jaw clenching and tooth grinding which can result in cracked tooth enamel, worn teeth and jaw problems.¹⁰ Users will try to alleviate this by sucking soothers/pacifiers, suckers or candy.
- Vicks Hit - refers to inhaling or having someone blow Vicks VapoRub® or vicks nasal where the person will experience cool menthol sensation enhanced by being under the influence of Ecstasy.

MDMA has been confiscated in various forms from Lower Mainland raves. Mostly it has been found in various coloured powders in pills and capsules. Many pills have had scorings on them in the form of the Chinese ying yang, pyramids, the word “LOVE,” and other popular symbols such as the Nike swoosh, Much Music, Mitsubishi and smiley faces. The powders vary with no real pattern or consistency. Powders may appear fine or have a granular appearance. MDMA capsules have been obtained as a beige, red, brown, black and white colour. These capsules have been found concealed in extra gum packaging, vitamin bottles, ziploc baggies, and tic tac containers.

Drugs in the pill or tablet form generally indicate a more sophisticated drug operation, as the equipment for their manufacture is expensive (*this is by no means an indication of a higher quality product*). Empty capsules, on the other hand, can be bought in bulk fairly easily, and at a low cost.



Designer Drugs — continued

MDA 3,4-methylenedioxyamphetamine

- Phenethylamine
- Hallucinogenic with stimulant properties

BACKGROUND

MDA is a synthetic amphetamine that falls under the CDSA. It is a pure drug or metabolite of MDMA, and has properties similar to those of LSD and amphetamines. MDA was patented in 1956 as a cough suppressant, and in 1961 as a diet aid. MDA was apparently never used clinically for these purposes, but was used for a time as an aid to psychotherapy. It became a restricted drug in Canada in 1969.

DESCRIPTION *(see colour section)*

MDA is found in pills and capsules of a powder ranging from white to yellow to brown, depending on its purity.

SLANG

Body Buzz, Love Drug, E-Bombs, Buzz-bombs

PACKAGING

Various quantities of MDA can be found in regular pill bottles, foil packages, small plastic containers, zip lock baggies, candy containers or gum packaging.

PRICE

\$20 to \$30 per capsule or tablet

CONSUMPTION

MDA is usually taken orally. However, it can be injected. A typical dose is 100 to 200mg. Effects can last from six to eight hours.

REACTIONS

Users may have individual differences in their sensitivity to MDA. Effects of MDA tend to be similar to those of LSD, without its hallucinations and perceptual distortions. There is an intensification of feelings and heightened, but not distorted, sensory awareness. Users feel more empathy and emotional closeness. Moderate doses cause confusion, fatigue, anxiety or panic, and decreased concentration. Physical effects of MDA include increased blood pressure and heart rate, raised body temperature, and a dry nose, throat and mouth. A large dose of MDA can cause hallucinations, delirium, seizures and comas. The effects are described as “harsher” than those from MDMA.

- MDA is 70% hallucinogenic and 30% stimulant.
- MDA is a designer drug referred to as a methylated amphetamine or hallucinogenic amphetamine.
- MDA has been confiscated from Lower Mainland raves in both capsule and pill form. Like MDMA, there is no consistent pattern to identify it. MDA has been found in colours ranging from white to blue, red and brown. The consistency of the powder is also varied; it may be a fine powder or have clumps of crystals.



Designer Drugs — continued

2C-B 4-bromo-2,5-dimethoxyphenethylamine

- Phenethylamine
- Stimulant with hallucinogenic properties



BACKGROUND

2C-B is a synthetic drug produced through a complex chemical process. 2C-B is generally either an additive to pills sold as Ecstasy, or a “drug of deception” sold as Ecstasy.¹¹

DESCRIPTION

A bitter, white to beige, crystalline powder in capsule or pill form. 2C-B is not easily water soluble, requiring at least warm to hot water.¹¹

SLANG

Nexus, Herox, Synergy, Eve, Venus, 2B-Seen, Eros

PACKAGING

Various quantities are found in regular pill bottles, foil packages, small plastic containers, zip lock baggies, candy containers or gum packages.

PRICE

\$20 to \$25 per capsule or tablet

CONSUMPTION

2C-B is taken orally The onset of the drug is between 45 minutes and an hour with effects lasting from four to eight hours.

REACTIONS

The initial onset includes Central Nervous System (CNS) stimulation. The main site of the brain affected is the cerebral cortex resulting in increased motor activity, mental alertness and euphoria. 2C-B causes mild confusion and perceptual distortions, but not with mind-bending distortions as from LSD. High doses can cause out of body experiences. 2C-B appears to have sexually enhancing effects in both men and women.¹² The effects of 2C-B are dependent on the mind set and physical setting of the user; reactions may be different in the same user on separate occasions.¹² There is little information on the toxicity of 2C-B, but it is known to cause dehydration.¹¹ Tolerance may occur with frequent use.¹²

- 2C-B is highly dose sensitive; even proponents of its use suggest that users not overdose as the intense experience will be unpleasant, causing mild confusion, stupor and childlike interest in visuals.

MMDA 3-methoxy-4,5-methylenedioxyamphetamine

- Phenethylamine
- Stimulant with hallucinogenic properties

BACKGROUND

MMDA is a chemical analogue of MDMA (Ecstasy).

DESCRIPTION

MMDA, in its pure form, appears as a white powder; colour may vary due to impurities.

PACKAGING

Various quantities are found in regular pill bottles, foil packages, small plastic containers, zip lock baggies candy containers or gum packages.

PRICE

\$20 to \$25 per capsule or tablet

CONSUMPTION

MMDA is taken orally in pills or capsules, snorted, or mixed with a liquid.

REACTIONS

MMDA may produce nausea, sweating, fatigue and increased blood pressure. High doses can produce agitation, abnormally accelerated heart rate, and very high blood pressure.

- MMDA has been seized, from Lower Mainland raves, in combination with other substances.



PMA paramethoxyamphetamine

- hallucinogen with stimulant properties
- semi-synthetic amphetamine-type drug
- also known as 4-methoxyamphetamine¹³

BACKGROUND

PMA first appeared as a recreational drug in the 1970s when it was often sold as MDA; it seems PMA has never been sought after for itself, but sold in place of current popular designer drugs. It is now substituted for MDMA, as PMA is cheaper and easier to produce.¹⁴ PMA was popular in 1994 in isolated areas of the Australian drug abusing population, and is currently still used at Raves and clubs. PMA was seen in Canada briefly in the 1970s when there were eight deaths with PMA confirmed as the cause. Currently, it is legally produced for limited commercial applications and some research.¹³ Ecstasy tablets tested in Toronto have been found to contain PMA and there were at least two deaths in late 2000 in Ontario.¹⁴

DESCRIPTION

PMA can be found in tablet, capsule or powder form. A tablet like the one pictured to the left was found to be PMA in Illinois in April of 2000



SLANG

Death, Mitsubishi Double Stack, Chicken Yellow, Chicken Powder

PACKAGING

Various quantities are found in regular pill bottles, foil packages, small plastic containers, zip lock baggies, candy containers or gum packages.

PRICE

\$20 to \$25 per capsule or tablet

CONSUMPTION

PMA can be taken orally, snorted or injected.

REACTIONS

PMA has an hallucinogenic potency three times that of MDA. It causes excessive Central Nervous System (CNS) stimulation. Use of PMA can result in hallucinations, delirium, restlessness, agitation, muscle contractions, hyperactivity, rigidity, rapid heart rate, increased blood pressure, sweating, a high fever, seizures, coma and death. PMA can be lethal even at moderate doses. PMA provides only mild euphoria and a slight elevation in energy level.¹⁴

- Doses of PMA over 50mg are considered potentially lethal, especially when taken with other drugs or alcohol.¹³
- In May 2000, three deaths in the Chicago area of the US were associated with PMA ingestion.¹³

MDE 3,4-methylenedioxy-n-ethamphetamine

- Phenethylamine
- Stimulant with hallucinogenic properties

BACKGROUND

MDE is a chemical analogue of MDMA (Ecstasy).

DESCRIPTION

MDE is a brown powder

SLANG

Eve

PACKAGING

Various quantities are found in regular pill bottles, foil packages, small plastic containers, zip lock baggies, candy containers or gum packages.

PRICE

\$20 to \$25 per capsule or tablet

CONSUMPTION

MDE is usually taken orally as pills or capsules.

REACTIONS

The initial onset includes Central Nervous System (CNS) stimulation. The main site of the brain affected is the cerebral cortex resulting in increased motor activity mental alertness and euphoria. Mild confusion and perception distortions occur. High doses can cause out of body experiences.



Drug Analysis



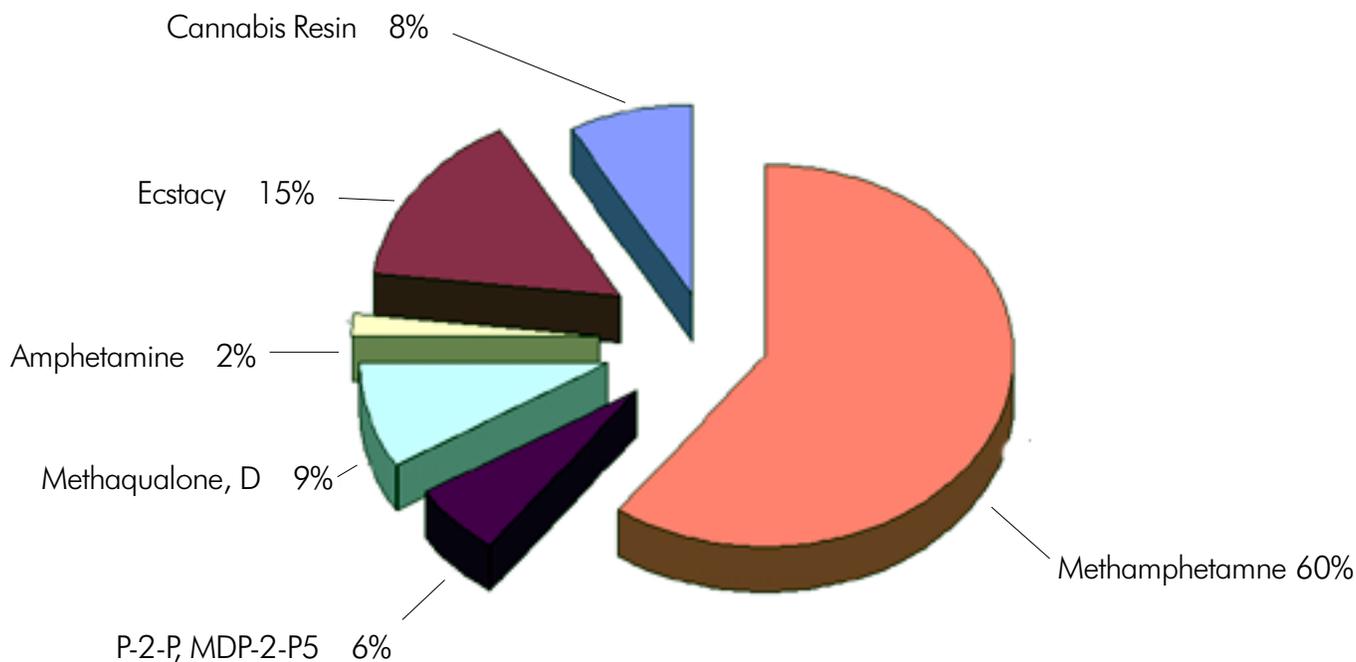
Since the Drug Awareness Intelligence Probe into Raves began, close to 1,000 samples of seized drugs have been analysed by the RCMP Forensic Toxicology Lab, BC Health Protection Branch, and the UBC Faculty of Pharmaceutical Sciences. For the past two summers, graduate students at the UBC Faculty of Pharmaceutical Sciences have been analysing seized drugs (a third will be done summer 2001). Along with providing Drug Awareness with the results of each analysis as they are done, the students have written full reports when their project is complete.

In Summer 1999, Karen Lo and Katie Ma completed "The Application of Liquid Chromatography/Mass Spectrometry in the Qualitative Analysis of Illicit 'Rave' Drugs." They did a qualitative analysis of 110 samples provided to them by the RCMP Drug Awareness Service. Lo and Ma used High Performance Liquid Chromatography (HPLC) combined with Mass Spectrometry (MS) to complete this analysis. MDMA was the predominant found substance, but only 20 samples were pure Ecstasy. Several samples contained a mixture of substances. For example, one capsule contained Methamphetamine, heroin, caffeine, ephedrine and MDMA. Another was made up of Dextromethorphan, ephedrine, methamphetamine, MDMA and caffeine. Other drugs found as components in the pills were cocaine and PCP.

In April 2001, Rahim Kanji wrote "Forensic Identification of Rave Drugs Using Liquid Chromatography and Mass Spectrometry;" a report on his work in Summer 2000. This was a qualitative analysis of 456 samples. Kanji determined what substances were present in the sal but not at what concentration/purity level. More than 400 were found be stimulants, 101 contained MDMA (not always pure), 79 MDA, and 85 methamphetamine. An interesting number is the 19 samples which contained cocaine.

The only other similar study was done by researchers at the Drug Dependence Research Centre in collaboration with DanceSafe and Drug Detection Laboratories in California. (Baggott, Matthew et al. 2000, "Chemical Analysis of Ecstasy Pills (Research Letter)." Journal of the American Medical Association vol. 284(17).) Samples were collected through DanceSafe; individuals could send in a pill, and \$100, for laboratory testing (gas chromatography -mass spectroscopy). One hundred and seven pills from across the US, mostly California, were analysed. Sixty-three percent of the sample contained some MDMA analogue. The researchers point out that due to the non-random sample and the cost for submitting a pill to be tested, these results may not accurately reflect what is actually being used.

Clandestine Labs 1991 - July 1999 in Western Region n=53



Intentional and Unintentional Poly-Drug Use Associated With Ecstasy Users



The following is the executive summary for a study done by the University College of the Fraser Valley in conjunction with the RCMP Drug Awareness Service's intelligence probe into the rave scene. The intent was to compare use patterns and beliefs with the drugs that were being seized and analysed. The full report is available from the Vancouver Drug Awareness office.

Russell Peel, Jenn Paul, Yvon Dandurand, and Darryl Plecas
Department of Criminology and Criminal Justice
University College of the Fraser Valley

Early this year a team of researchers from the Department of Criminology and Criminal Justice at the University College of the Fraser Valley undertook a study of rave goers in order to investigate the extent and nature of polydrug use at raves. In particular, the research team was interested in polydrug use associated with the popular rave drug, ecstasy. As part of the study, the researchers conducted structured, on-the-spot interviews with 304 attendees at five different large-scale raves held in Vancouver, British Columbia within the first three months of 2001. While those interviewed were sampled by a convenience method, the researchers are confident that they constitute a reasonable representation of rave goers generally. One in five of those approached to participate in the study, declined to be interviewed.

A main component of the study involved analyzing data from lab analyses of drugs seized by the Royal Canadian Mounted Police (RCMP) at various raves in the Lower Mainland of British Columbia. The lab analyses were undertaken as part of a Drug Intelligence Probe launched by the RCMP Drug Awareness Service in June 1998 in response to a growing concern over the adulteration of rave-related drugs. The availability of these lab reports provided the researchers with an important opportunity to compare rave goers' intended polydrug use with ecstasy, to the unintended polydrug use resulting from the adulteration of ecstasy actually used at raves.

Some of the findings of the study simply confirm some of the common assumptions about drug use among rave goers. For example, the researchers found that ecstasy is clearly the drug of choice. Among those interviewed, 58% reported that it was their "favorite" drug, and nearly half of this group (46%) cited it as the drug they used most. Half (51%) of those interviewed reported that they were using or planning to use ecstasy that very night.

One of the things the study found was that, while a significant number of ecstasy users engage in polyuse, the vast majority have an expectation that the drugs they use are pure. Specifically, 67% of those interviewed claimed they could be confident about the purity of the drugs they use because they trust or at least know the person (i.e., dealer, friend, manufacturer) they buy from. Another 6% of those interviewed said that they use a tester to ensure purity. Only 27% of those interviewed stated that they did not know whether or not the drugs they used were pure. In terms of intended polyuse, 18% of those interviewed who stated that they planned to use ecstasy that night, also planned to use it with another drug. However, for 85% of this group, the other drugs they planned to use were either marijuana, psilocybin, or alcohol - only 15% planned to mix ecstasy with methamphetamine or other drugs with which ecstasy is often adulterated.

Despite the fact that the vast majority of ecstasy users expect their drugs to be pure and don't plan to poly-use, the reality is that they commonly

poly-use unintentionally. This was clearly evident from the analysis of drugs seized at raves. Whatever was seized was hardly likely to be pure. In the case of ecstasy, the analysis revealed that it was in pure form in tablets only 24% of the time, and in capsules only 11% of the time. In fact, as the table below shows, only about half of the tablets seized and only a third of capsules seized even contain ecstasy. In the case of capsules seized, MDA was actually the most likely added ingredient, and in the case of powder seizures, methamphetamine was most common. Worse, as the table suggests, whether the form is tablets, capsules, or powder, any single "hit" could contain any one or more of a range of drugs. Ecstasy in tablet form, for example, was found in combination with one or more of eight different ingredients listed on the table. In capsule form it was mixed with one or more of nine different ingredients. In the final analysis, the results of this study are disturbing in a number of respects. The extent of self-reported ecstasy use at raves is disturbing enough, but the extensive and varied adulteration of ecstasy sold to unsuspecting users is even more serious - especially since it appears to be the norm. It calls into question the validity of many so-called safe-drug or harm reduction efforts. Indeed, given the extent and variation involved, it is hard to imagine how any ecstasy use differs much from the game of Russian Roulette.

PERCENTAGE OF TIME VARIOUS INGREDIENTS WERE PRESENT IN TABLETS, CAPSULES AND POWDER SEIZED AT RAVES*

INGREDIENT	% of seized tablets containing ingredient (N = 186)	% of seized capsules containing ingredient (N = 194)	% of powder seizures containing ingredient (N = 69)
Ecstasy (MDMA)	53% (8)	32% (9)	19% (5)
MDA	17% (9)	47% (10)	7% (5)
Ephedrine/Pseudoephedrine	15% (8)	29% (11)	1% (1)
Methamphetamine	12% (8)	28% (11)	43% (8)
Caffeine	10% (7)	18% (10)	14% (6)
Phencyclidine (PCP)	5% (4)	10% (9)	1% (1)
Ketamine	4% (5)	2% (8)	36% (7)
Cocaine	3% (6)	8% (7)	6% (1)
Dextromethorphan (DXM)	3% (6)	4% (7)	0% (n/a)
Codeine	3% (1)	1% (3)	1% (1)
Amphetamine	2% (2)	2% (7)	1% (3)
Methylenedioxy-amphetamine (MMDA)	0% (1)	7% (8)	1% (4)

* Number in brackets represents the number of different drugs found in combination with ingredient.

NOTE: Drug analysis provided by RCMP Forensic Toxicology labs, UBC Faculty of Pharmaceutical Sciences, and Health Protection Branch labs.

Clandestine Laboratories¹⁵



A clandestine lab is a secret or concealed location where controlled drugs and substances are produced. The first illicit amphetamine lab was seized in 1963 in Santa Cruz, California. The number of labs taken down in North America has been increasing ever since. Due to the increasing popularity of chemical drugs, labs producing them have increased. In Canada, law enforcement officers uncover all forms of clandestine labs including extraction, grow and synthesis.

British Columbia is internationally known for its marijuana production/cultivation operations. “BC Bud” has won Maribuana Bud of the Year awards in Amsterdam several times. Besides marijuana production, THC extraction labs are also on the increase with equally potent results. On March 11, 1997 an analyst with the Health Protection Branch analyzed Cannabis resin, seized from a small extraction lab, at 78% THC.¹⁶

With respect to synthesis labs, we are now seeing an increase in labs encountered in Western Canada. BC, for example, investigated eight synthesis labs in 1998. In 1999, BC investigated nineteen labs; in 2000 the number had climbed to 30. There have been more MDA/MDMA labs recently. In comparison, the State of Washington uncovered and investigated 125 labs in 1999. Of particular note is the fact that the labs uncovered in Washington were small, with an average yield of nine ounces; the labs in BC were much larger with the chemical yield capacity being in kilograms. In 2000, BC investigated thirty clandestine labs, the majority of which were Methamphetamine synthesis labs. The fact that there were more methamphetamine labs uncovered must not distract from the fact that in BC (and the rest of Canada) we are seeing an increase in Ecstasy and MDA labs. An alarming fact is that these Ecstasy and MDA labs are producing much higher yields than all the methamphetamine labs put together. To emphasis this point an Ecstasy lab uncovered in Chilliwack, BC in 1999, was calculate out to produce 200 kilo’s of Ecstasy. An MDA lab uncovered in Richmond, BC in June 2000 was calculated out to produce 100 kilo’s of MDA.

With the growth of the Rave party scene, and the appeal of club drugs in general, more chemical drugs are being used by young people, and seized by Police and Customs Officers. Chemical drugs are being seized in a variety of sizes, colours and forms. They are seen as pressed tablets or pills, as gelatin capsules, in paper decks or in small zip lock baggies. Intelligence suggests that many of the press tablets are coming to Canada from various countries in Europe and Asia. However, we are seeing increasing evidence that chemical tabs are being encountered in Canada more often than ever before (especially in BC).

Types of Clandestine Labs

There are three major types of labs: extraction, grow and synthesis.

- | | |
|---------------------|---|
| Extraction → | final product is extracted from raw materials through the use of solvents such as isopropyl alcohol, Coleman fuel, chloroform, and others.
<i>i.e. weed oil, pseudoephedrine</i> |
| Grow → | final product is grown to a mature plant
<i>i.e. cannabis, mushrooms, peyote</i> |
| Synthesis → | a mix of chemicals is allowed to react under controlled conditions, then the final product is salted or crystallized out of this solution
<i>i.e. amphetamine, methamphetamine, MDAM, MDA, GHB</i> |



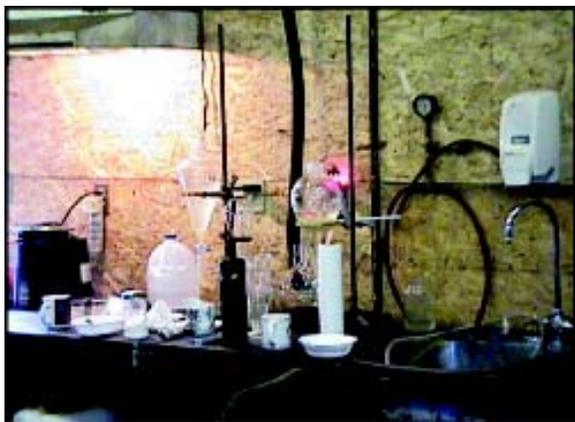
METHAMPHETAMINE SYNTHESIS LABS

We are well aware of the increased use of Ecstasy, MDA and other associated chemical drugs in BC (and Canada) and are beginning to see evidence that Methamphetamine, which is a very powerful and addictive stimulant, is becoming a very popular drug of choice by many users. At one time, methamphetamine was isolated to unique subcultures; this drug has now moved mainstream and we are seeing evidence that Methamphetamine is being used by many drug users seeking both stimulation and energy.

Equally noticeable is the increase in clandestine methamphetamine labs that police are uncovering. Methamphetamine labs in Canada and the U.S. account for the majority of methamphetamine that is used and trafficked in BC (Canada).

Methamphetamine is most commonly found to be produced by an ephedrine/pseudoephedrine reduction method. Methamphetamine can also be produced by the P2P (Phenylacetone) method but is not common. It should be noted however, that in April 2001 Canada Customs in Vancouver seized approximately 200 kilo's of P2P. This P2P was smuggled into Canada and was destined to a Canadian address. Aside from the P2P, Customs also seized several kilo's of Heroin. It is suspected that the purpose of the P2P was for the production of Methamphetamine. The amount of P2P seized would be equivalent to producing approximately 160 kilo's of methamphetamine.

Ephedrine/Pseudoephedrine can be obtained from many sources and is easily obtained as it is contained in many over the counter cold remedies. Other equally obtainable ingredients include, but are not limited to, hydriodic acid, red phosphorus, anhydrous ammonia, lithium metal, sodium metal, ether, iodine, aluminium foil, methylamine and sulphuric acid. Meth labs can be set up anywhere as you do not require much space. Not only do you not require lots of space, but the process once all precursors have been obtained will only take a few days. The process can be either heat induced or the chemicals simply allowed to react at room temperature. Once the process begins you can have the final product within only a few days.



Meth lab

PSILOCYBE GROWS

In order to understand how to cultivate Psilocybe mushrooms you must understand the life cycle of common fungi, (which includes the Genus Psilocybe), and methods of cultivation used in the mushroom industry that were adapted to this operation. Cultivating mushrooms in the laboratory is a multi step process that parallels the development of the mushroom life cycle (spores to mycelium to a radial growth pattern then a "biological switch" which causes primordial formation resulting finally in growth of the mushroom). The mass of mushroom mycelium is experientially expanded millions of times until mature fruiting bodies can be harvested and dried for sale or consumption. The mycelium is cultured initially in petri dishes containing a semi-solid agar medium. Agar is a seaweed compound that gelatinizes water. This solution is actually a jelly like "broth" of essential nutrients that is sterilized and poured into dishes prior to inoculation. These plates can be inoculated with spores alone or cloned from a select piece of tissue. Once the mushroom mycelium is grown out it can be transferred to the next stage using a cut wedge method whereby a small slice of the inoculated agar is cut out and transferred to grain spawn. A standard petri dish contains enough mycelial network to inoculate 10 quarts of sterilized grain spawn. If the mycelium is chopped and diluted it has the potential to inoculate 40- 100 quarts of grain spawn.

Grain spawn is the next step in the exponential expansion of the mycelial mass. The sterilized grain is a nutritional supplement and evenly distributes further growth. The 10 quart jars that are inoculated from each petri dish in step one are known as "grain masters." Once each one of these jars is grown out, it in turn can inoculate a further ten jars, or ten times its mass for three more generations. This results in a 1000X increase in mass using the "cut wedge" method. The spawn run takes 45-60 days, depending on environmental conditions. Grain spawn can be used to inoculate pasteurized straw, sterilized sawdust, or other agricultural waste products.

Straw spawn is inoculated with the third generation grain spawn. In this operation the straw spawn becomes the fruiting substrate or platform from which the mushrooms will arise. Once again the mass grows exponentially and when using the "bag culture" as observed in this operation, each petri dish results in 10,000 bags of inoculated straw medium. It is at this stage that primordia and, eventually fruiting bodies, will develop. The mature mushrooms will be harvested from this medium and then dried to form a final product.

The growth parameters for Psilocybe species are as follows. The spawn run is 45 to 60 days in duration. The primordia formation is a further 10 to 14 days. Fruitbody development occurs in 10 to 20 days and the cropping cycle will yield at least 2 crops, 3 to 4 weeks apart. This results in a crop rotation period of 86 to 122 days (3 to 4 months). Thus yielding a grower anywhere from 3 to 4 crops per calendar year.

Any crop failure in mushroom growing is usually as a direct result of contamination. The effort and expertise in growing mushrooms are equalled by the same knowledge and effort afforded in not growing contaminants. Contaminants include diverse species of fungi, mold, micro organisms and insects. Grow operations usually include tools and

continued overleaf

Clandestine Laboratories — continued

Psilocybe Grows - con't from page 17

equipment specifically used in mushroom cultivation operations to minimize or eliminate contamination. In a mushroom grow lab there should be no visible contamination present. Any visible contamination is a sign to wear protective clothing.

The mushrooms are picked and, in most operations, dried on racks. There are several other methods of ensuring that the mushrooms are dried. Psilocybe mushrooms can be consumed fresh or dried but have a very limited “shelf life” as a fresh product. Once properly dried they are essentially preserved and will last for an extended period of time, however, the psychoactive ingredient will degrade with time. It is in the dried state that Psilocybe mushrooms are usually presented by traffickers. There is a very good likelihood that the spawn itself could be sold to other growers.

GHB SYNTHESIS LABS

GHB is produced in clandestine lab operations and requires no scientific expertise or laboratory skills. GHB is produced by the addition of sodium

hydroxide to Gamma- butyrolactone (GBL). GBL is an industrial solvent quite often used as a floor cleaner and is readily available throughout Canada at most chemical distributors. Sodium hydroxide quite simply, lye. Lye can be purchased at most grocery stores in the same aisle as other “cleaning products.” When these two benign products are mixed together in proper proportions, they form GHB. Lab operators often add excess NaOH (sodium hydroxide) to ensure that all of the GBL has reacted. The sodium remains unreacted and this gives the final solution a salty taste. These chemicals are usually mixed in any glass container without heat or additional chemicals. Occasionally lab operators will use pH paper to test the acid/alkaline content and subsequently neutralize the solution, because quite often the final solution is strongly alkaline.

It is the lack of lab equipment and specialized precursors that make these labs so difficult to uncover, and allows the “cooks” to set up shop anywhere. GHB can even be produced right in the trunk of a vehicle parked outside of a Rave. Even though it is a simple process, the two precursor chemicals are hazardous and should be treated with the same caution used in handling hazardous materials from more sophisticated clandestine lab operations.

Safety Precautions

It is important to be aware of the dangers which may be present when taking down a clandestine lab. There are a number of safety precautions which should be taken. Your safety, and the safety of others, should be your first priority.

ALWAYS...

- ✓ look for booby traps
- ✓ remove all prisoners/suspects from the vicinity
- ✓ remove all their clothing and place it in plastic bags as exhibits for analysis,
- ✓ wear protective clothing
- ✓ have a trained chemist assist you in your search
- ✓ photograph/film the complete setup before removing any items
- ✓ have trained Ident members check items for prints
- ✓ sample and destroy
- ✓ **seize:** precursors, intermediaries, final products, equipment, notes, manuscripts, bills, chemistry books, recipes, computer equipment, personal effects.

NEVER...

- ✗ go indoors unless necessary
- ✗ turn on the lights immediately
- ✗ wear shoes with metal cleats
- ✗ turn off water sources
- ✗ smell any products
- ✗ spill ANYTHING
- ✗ store chemicals/contaminated equipment in exhibit lockers
- ✗ transport chemicals in a police vehicle - EVER



Clandestine Lab Indicators

Drug dealers and manufacturers have common habits which are easily observable by the average citizen. Being aware of these signs as possible indicators of a clan lab can help in identifying and taking down these labs.

- X-3 blacked out windows, or curtains always drawn
- X-3 chemical odour coming from the house or apartment, garbage or detached building
- X-3 garbage frequently has numerous bottles and containers such as: acetone, toluene, muriatic acid, red phosphorous, ephedrine, methanol, sodium hydroxide, ammonia, etc.
- X-3 metal drums and boxes with labels removed or spray painted over
- X-3 setting out their garbage in another neighbour's collection area
- X-3 unfriendly and appear secretive about their activities
- X-3 paranoid or odd behaviour such as watching cars suspiciously when they pass by the residence
- X-3 coming outside to smoke cigarettes
- X-3 expensive security
- X-3 frequent visitors, often in expensive vehicles
- X-3 frequent late night activity
- X-3 unemployed, yet drive expensive cars, seem to have plenty of money, pay bills in cash

Dangers of Clandestine Labs

As the number of clandestine labs encountered increases, so must the awareness of the dangers associated with these labs. The greatest danger associated with clandestine labs is the “unknown”; educating yourself as much as possible is vital. Some potential dangers are explosives, flammables, toxic chemicals, and booby traps. The distinctive dangers and special circumstances surrounding clandestine labs must be appreciated.

There are no standard recipes for drugs produced at clandestine labs. Very few lab “cooks” are legitimate chemists; often they get their recipes from friends or off the Internet. There are only three main requirements for a lab: electricity, cold water and ventilation. This requirement of minimal equipment combined with accessible knowledge increases the dangers of these labs as it means anyone can set one up.

Solvents	➔	toxic, flammable, explosive, displaced oxygen
Chemicals and gases	➔	corrosive, carcinogenic, displaced oxygen, toxic
Drugs	➔	overdoses from inhalation/absorption (ie LSD, fentanyl)
Booby traps	➔	hazard to life, destroy evidence



Chemicals Found at Clan Labs

The list of chemicals which could be found at a clandestine lab site is extensive. Many of these chemicals, as well as the equipment needed, are available from legitimate sources. It is vital to know your chemicals and their dangers before sampling, moving or examining anything; have a Health Canada chemist assist you.

Some of the Chemicals You Might Find at a Clan Lab:

Acids	hydrochloric, sulfuric phosphoric, acetic, hydriodic, formic
Bases	sodium hydroxide, potassium hydroxide, ammonium hydroxide
Solvents	methanol, iso-propenol, ethanol, chloroform, ether, benzene, toluene, pyridine, methylene chloride, tetrahydrofuran, carbon disulfide, acetone, petroleum spirits, white gases
Catalysts & Reducing Agents	lithium, aluminum hydride, sodium hydride, sodium borohydride, palladium black, zinc, tin foil, magnesium, mercuric chloride
Pre-cursors	P-2-P, piperonyl acetone, ephedrine, phenyl acetic acid, piperonyl, benzaldehydes, methyl amine, lysergic acid
Reagents	phosphorous pentachloride, thionyl chloride, sodium acetate, sodium chloride, sodium sulphate, red phosphorous

Other Associated Drugs

Methamphetamine

- Central Nervous System (CNS) stimulant
- Synthetic

BACKGROUND Methamphetamine is produced in laboratory settings in the US and Canada. Ephedrine reduction is the most common method of production; methamphetamine can also be produced using pseudoephedrine. The US Drug Enforcement Administration estimates there are more than 300 ways to manufacture Methamphetamine.

DESCRIPTION Methamphetamine can be an off-white crystalline powder, brown granules, or transparent crystals.
(see colour section)

SLANG Meth, Crystal, Speed, Glass, Ice, Shards, jib, Crank, Peanut Butter.

PACKAGING The powder is folded in paper flaps ($\frac{1}{10}$ gram to 8 balls), capsules, plastic baggies ($\frac{1}{10}$ gram to $\frac{1}{4}$ pound), or manufactured into tablets (5mg, 10mg, 15mg) - Users prefer to purchase “shards” because they are more likely to be a pure drug as it cannot be cut with an adulterant.

PRICE \$10 to \$15 for 1/10 of a gram.

CONSUMPTION Methamphetamine is taken orally, snorted, injected (experience will last two to four hours, but can last up to twelve hours depending on how the Meth was manufactured and the purity), or smoked (experience will last eight to sixteen hours). Smoking Methamphetamine is known as “chasing the dragon.” This is done by heating the powdered substance on foil and inhaling the train of smoke through a straw.

REACTIONS Reactions closely resemble those associated with cocaine use. Methamphetamine works by enhancing the release of the brain neurotransmitter norepinephrine, which is involved in the transmission of sympathetic nerve impulses. Meth acts on the cerebral cortex of the brain, which accounts for the increased motor activity, initial rush, high euphoria, anxiety, depression, mental confusion, aggressiveness, increased respiration and body temperature, restlessness and poor judgement. High doses of methamphetamine can cause delusions and visual and auditory hallucinations (an amphetamine psychosis). These high doses lead to long-lasting decreases in dopamine and serotonin in the brain; these effects appear to be irreversible. Users are extremely paranoid and violent. After the effects wear off, the “crash” includes deep depression, followed by fatigue, headaches, and decreased energy. This depression can only be ended by reabsorption of methamphetamine. Methamphetamine is very addictive, and can result in users developing a tolerance very quickly, requiring ever more to achieve the desired effects. The drug tricks the body into thinking it has endless energy supplies, resulting in the user burning up all of the body’s reserves. After the drug wears off, the user experiences a crash or intense feeling. Users sometimes go on binges, staying up three to ten days at a time; this puts intense strain on the body.

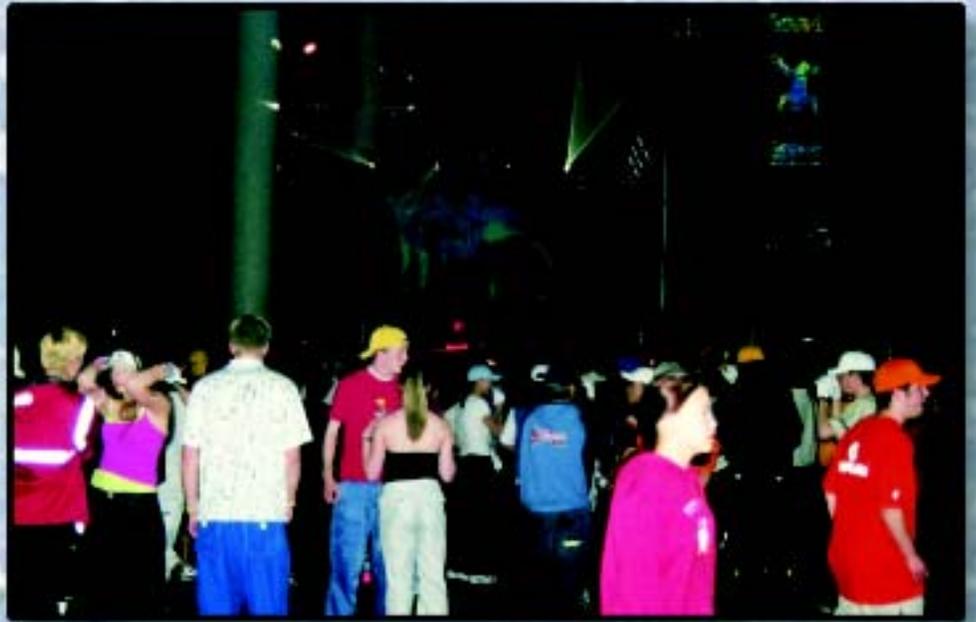
- Methamphetamine is very popular at raves, and has been confiscated at several events across the Lower Mainland. The powder tends to be a granular texture with an off-white to yellow colour (there is no standard for recognition). Methamphetamine has most commonly been found concealed as powder wrapped in paper flaps, or packaged in small colourful baggies.
- Two recent studies in the American journal of Psychiatry demonstrate the possibility of permanent neurotoxicity caused by methamphetamine abuse.^{17,18} Poor motor and memory performance were attributed to significant dopamine transporter reductions in methamphetamine abusers. This reduction was seen even in the users who had been abstinent for at least eleven months, suggesting these reductions to be long term, and possibly permanent. Meth abuse was also shown to produce changes in the function of dopamine and non-dopamine-innervated brain regions.



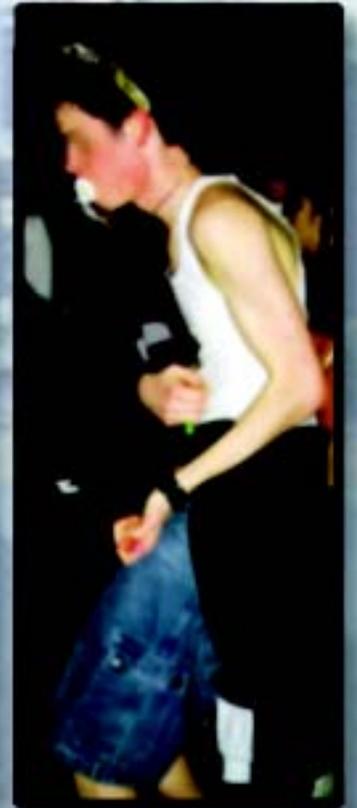
Local Rave Scenes



"Searched at the entrance"



A DJ at work



Rolling on "E"

An Assortment of Drugs in Pill Form

*These drugs are sold as Ecstasy,
but may contain one or more of the following:*

- ❖ MDMA
- ❖ MDA
- ❖ PCP
- ❖ Ketamine
- ❖ DXM
- ❖ Caffeine
- ❖ Methamphetamine



Various Capsules

As with pills, these drugs are sold as Ecstasy, but often contain one or more of the following:

- ❖ Ketamine
- ❖ DXM
- ❖ Caffeine
- ❖ Methamphetamine
- ❖ MDMA
- ❖ MDA
- ❖ PCP

They may also contain Ephedrine, Cocaine, and even Heroin

LSD and MDMA



Heroin capsule with MDMA



Vials of GHB



PCP Capsules

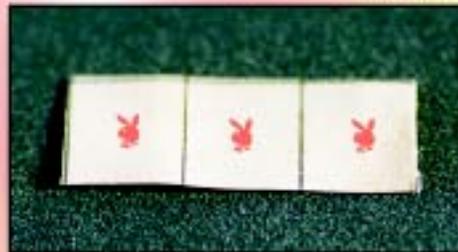


Psilocybin mushrooms:
dried, ground up, and put in gelatin capsules



Ketamine Powder

LSD Blotters



Methamphetamine (shards, crystal)



Marijuana Bud (right)
and Joints (below)

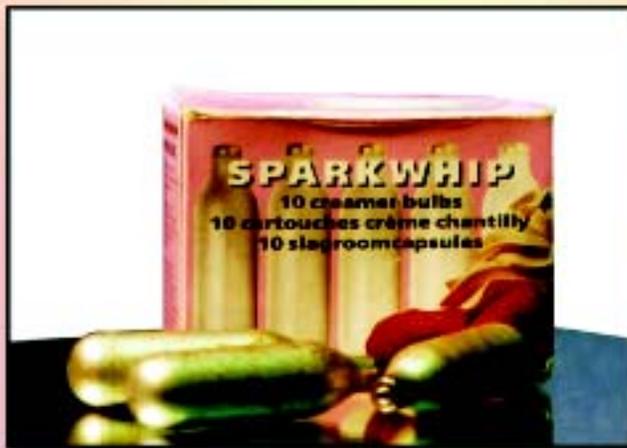


Legal Highs

Off-the-shelf pharmaceuticals used for questionable purposes...



Used for "VICK'S HIT"



Nitrous Oxide Whippets sold for use with whip cream dispensers, but used to inhale N₂O



Ecstasy Pre- and Post Loading Supplements



An herbal energy drink being sold at raves



Various forms of Ephedrine



"Dealers Stash"

Samples of the packaging used by drug traffickers



Tools of the Trade

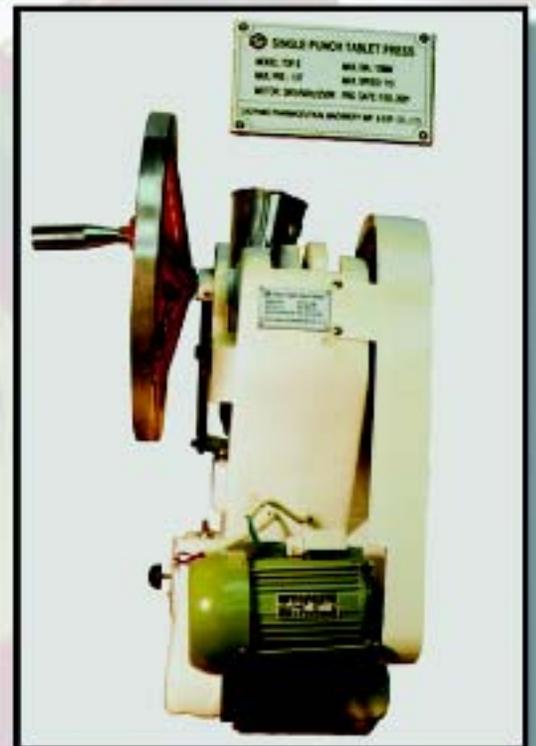
A working model of a single tablet pill press, seized from illicit drug producers. Also shown - various clandestine laboratory equipment and supplies.



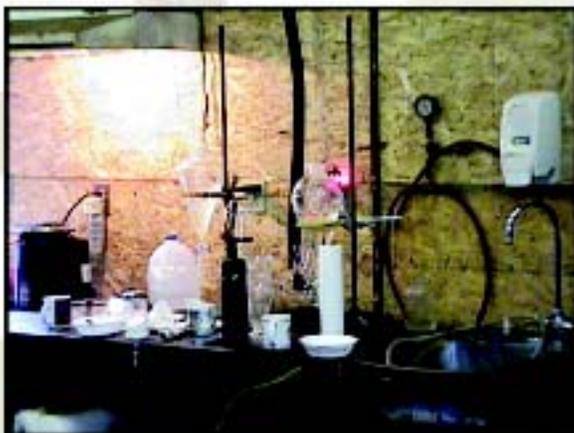
Psilocybin Mushrooms being grown in a lab



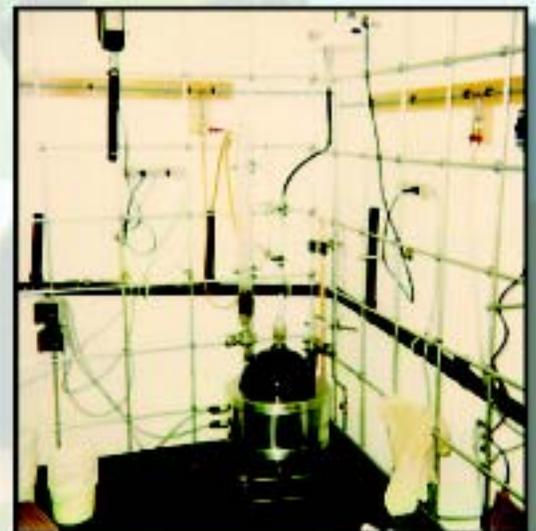
↑ Precursors



Pill Press for making Ecstasy tablets



Metamphetamine Lab



MDMA Lab

Other Associated Drugs — continued

LSD d-lysergic acid diethylamide

- Hallucinogen
- Semi-synthetic

BACKGROUND

LSD was first produced in 1938 by Albert Hoffman, who was hoping to find a circulatory stimulant; no medical uses were found. The drug's hallucinogenic properties were later discovered by accident. A number of psychologists and psychiatrists believed LSD was a key to increasing understanding of the human mind. Societal abuse eventually replaced legitimate studies. Dr. Timothy Leary popularized LSD use. LSD is now produced in clandestine laboratory settings, usually in the USA (Northern California) or Canada; it is a complicated production process involving a number of dangerous (flammable, explosive or toxic) chemicals. There is currently no generally accepted medical use of LSD.

DESCRIPTION

(see colour section)

LSD is a clear, odourless, colourless, and tasteless liquid. It degrades when exposed to sunlight or when placed on paper. Therefore, LSD is not put on blotters very far before its use.

SLANG

Acid, Hit, Purple Haze, Trip, Microdots

PACKAGING

LSD is seen as a liquid, pills, tablets, blotter papers (which usually have some sort of cartoon picture or drawing), powder, or anything that will absorb a liquid; usually wrapped in aluminium foil.

PRICE

\$5 to \$10 per hit

CONSUMPTION

LSD is taken orally (generally by placing a blotter paper on the tongue) which leads to a rapid onset of effects. It can also be mixed with foods, injected, or used in eye drops. An LSD experience lasts from eight to twelve hours. LSD is not typically used on a daily basis, due to tolerance. Doses are very potent and measured in micrograms (20Fg will cause an effect). An effective dose of pure LSD is so small it is virtually invisible.

REACTIONS



LSD acts on several sites in the brain, such as the hippocampus (essential in memory formation and recall), cerebral cortex (coordinates higher nervous activity) and cerebellum (coordinates muscles and maintains body equilibrium). LSD use results in the displacement of the neurotransmitter serotonin, which, ultimately, is the basis for hallucinations. LSD can be considered a stimulant or depressant depending on the dose and user. As a dose increases, the effects become more intense. Users may experience different reactions in different drug taking episodes. Low doses produce relaxed feelings with noticeable changes in auditory and visual perceptions, dilated pupils, a dazed appearance, rapid irrational speech, nausea, poor memory, and talkativeness. LSD in high doses will result in impaired distance perception, loss of sense of time, intense visual effects, illusions and hallucinations, nausea and unpredictable behaviour. LSD can cause the user to feel what is known as "synesthesia," where they "hear colour and see sounds." Sometimes a user will experience what is known as a "bad trip." This could involve feelings of extreme fear, anxiety and paranoia, and the risk of physical injury from reacting in a state of panic. Flashbacks are common with LSD use; they occur after the effects have worn off and the user tends to feel normal. The flashbacks are sudden recurrences of the effects of the LSD and can occur weeks, months or years after usage. LSD users quickly develop a tolerance to the drug (after three to six days of continued use) and must abstain for a period of days to feel the effects again.

- Effects of LSD are dose related, as well as dependant on the physical setting, and user's past drug experiences and current mind set.
- LSD has been confiscated in the form of blotter papers perforated on the edges. The papers fit together to form a graphic. The hits, or papers, have generally been wrapped in paper, or been several carried in a small plastic container. They have also been found wrapped in foil to avoid absorption into the skin by direct handling.
- Along with tolerance to LSD itself, "cross-tolerance" develops from LSD use. This means the effects of other hallucinogens (mescaline, psilocybin, other lysergic derivatives) also become tolerated by the body. No effects will be experienced until after a period of abstinence.
- Using LSD in conjunction with MDMA is referred to as "candy-flipping." This is quite popular amongst ravers.



Other Associated Drugs — continued

GHB gamma-hydroxy-butyric-acid

- Central Nervous System (CNS) depressant

OVERDOSE CAUTIONARY AS REPORTED BY HOSPITAL EMERGENCY STAFF

BACKGROUND

Developed in 1961 in France, GHB has been used as an anaesthetic and in the treatment of major depressive illnesses, alcohol withdrawal, and narcolepsy. The side effects from use were too severe. Thus, its medical use has ceased, except in some European countries where it is still used clinically. Sold in health stores until 1980, athletes used GHB as it was thought to stimulate human growth hormones and aid in fat reduction. GHB is still popular among athletes (body builders), thinking it improves their quality of sleep. GHB is now produced synthetically, and is easily produced from butyrolactone and sodium hydrochloride.

DESCRIPTION

(see colour section)

GHB can be found in a pill or white powder form, but is generally mixed with liquid (water). Liquid GHB is clear and odourless, with the viscosity of light mineral oil. Both powder and liquids are salty tasting.

SLANG

Liquid Ecstasy, Grievous Bodily Harm, Georgia Home Boy, Easy Lay, Liquid X, Saltwater, Goop, Scoop

PACKAGING

GHB in the powder form can be found in small plastic baggies; in its more common liquid form, GHB is put into small glass or plastic vials (5ml, 10ml, 25ml).

PRICE

\$10 to \$20 per vial (4 to 5ml)

CONSUMPTION

GHB is taken orally. Effects last approximately two to four hours, and can last up to six hours, from a normal dose; another dose must be taken to sustain the effects.

REACTIONS

GHB is a dopamine enhancer. Low doses of GHB can cause amnesia, nausea, vomiting, drowsiness, dizziness, hypertension, a lack of coordination and impaired judgement. Higher doses can lead to respiratory depression, lack of consciousness, a slowed heart rate, seizure like activity, and coma. GHB relaxes inhibitions and increases the libido, which is why some consider it to be a date rape drug (not to be confused with Rohypnol). GHB is considered to give an alcohol like high without the hangover effect.

- Consuming GHB with alcohol intensifies the CNS depressant effects.
- GHB can be used to facilitate sexual assault. If this is suspected, blood samples sent for analysis should request specific testing for GHB.
- GHB in both white powder and liquid form (more common) has been confiscated from raves in the Lower Mainland. GHB has been found in combination with alcohol and Ketamine. Depending on the purity of the sample, the viscosity of the liquid tended to be thicker, or heavier, than water.
- GHB is often concealed in glass vials or has been poured into water bottles (security at raves does not permit open beverages into the event for this reason).
- GHB powder was found in small, clear, plastic baggies; it appeared white and powdery, with very fine crystal appearance.



Other Associated Drugs — continued

Methaqualone (Quaalude)

- Sedative / hypnotic

BACKGROUND Methaqualone was first introduced in 1965 under the brand names Quaalude, Sopor, Parest and Mecquin as a safe substitute for barbiturates. In the late 1970s and early 1980s, Methaqualone saw a rise in popularity and illicit use. This was in large part due to its undeserved reputation as an aphrodisiac. Due to extensive illicit use and numerous deaths attributed to it, Methaqualone was removed from sale in 1984 in the US. Legitimate use was discontinued in Canada as well and Methaqualone is now placed on the Controlled Drugs and Substances Act (CDSA).

DESCRIPTION Methaqualone has been seen as a large round tablet with the scoring of “Lemmon 714.”

SLANG Ludes, Quay, Quad, Mandrex, Luding Out (taking Methaqualone with wine)

PRICE \$20 to \$30 per tablet

CONSUMPTION Methaqualone can be ingested orally as pills or capsules, or injected.

REACTIONS Methaqualone rapidly produces mild euphoria, as well as an overall sedative effect and suppression of inhibitions. Tolerance develops rapidly to these sedative and euphoric properties. Consumption of Methaqualone can cause physical and psychological addiction. Use leads to increased pulse, coma and possibly death. Abrupt abstinence from Methaqualone leads to psychotic symptoms and potentially life-threatening seizures. Many deaths have been reported as directly related to Methaqualone overdose.



- One sample of Methaqualone has been seized from a rave in the Lower Mainland. It was a large pill with “Lemmon 714” marked on it. A Methaqualone and Ecstasy lab was dismantled in the Montreal region, June 1999; chemicals were seized that would have produced several thousand Methaqualone pills.
- There have been instances where 300mg of Diazepam, with identical markings, has been substituted and sold as Methaqualone.

GHB Kits

Kits containing the chemicals necessary for producing GHB are easily found on the Internet, as are recipes for mixing these chemicals. Prices for the chemicals and kits range from \$15.00 to \$300.00. Most sites have some form of disclaimer stating they are not responsible for how the buyer uses the product, including any illegal uses. Sites advertise these products as nutritional supplements, dietary or sleep aids, or cleaning chemicals (this latter being prominent in the USA where GHB is now a Schedule 1 restricted drug).



Other Associated Drugs — continued

Psilocybin Mushrooms (phosphorylated 4-hydroxydimethyltryptamine)

- **Hallucinogen**

BACKGROUND

There are about seventy-five different species of psilocybin mushrooms from three genera. Psilocybin mushrooms grow wild in BC on the West Coast, and are also grown indoors. (See Clandestine Lab Section: Psilocybe Grows) Six species grow wild in the Pacific Northwest; indoor mushrooms are usually *Psilocybe Cubensis*. The chemical structure of psilocybin is similar to that of LSD, but is 1/100 of the potency. It can be produced synthetically but is a difficult and costly process. Synthetic Indocybin was marketed briefly for limited use as a psychiatric research drug, but ceased in 1965. There is no medical use for psilocybin mushrooms. Their popularity has been brought on by Terrence McKenna, a well-known advocate of natural highs, and through several websites.

DESCRIPTION

(see colour section)

They are small mushrooms containing psilocybin/psilocin. Psilocybin mushrooms are normally preserved by drying. Pure form psilocybin is a white crystalline material. There is a threat of mistaken identity with mushrooms, as many poisonous mushrooms are very similar in appearance to psilocybin mushrooms.

SLANG

Shrooms, Magic Mushrooms, Mush, Chocolate

PACKAGING

Psilocybin is found as either fresh or dried whole mushrooms, or ground into a powder and put into gelatin capsules. Whole mushrooms are generally packaged in plastic ziploc bags.

PRICE

\$12 to \$15 per gram

CONSUMPTION

Mushrooms are taken orally (caps and stems are eaten, or taken ground up in capsules) or smoked (mixed with marijuana). They can also be brewed in tea or put into foods. The effects will last up to six hours. A single dose ranges from one to twenty milligrams, with the usual being four to ten. Mushrooms vary greatly in strength; there is no consistent potency.



REACTIONS

Indoor grown mushrooms are always more potent and larger than those found in the wild. Mushrooms produce relaxed feelings, with changes in auditory and visual perception, irrational speech, poor memory, and a dazed appearance. Perception of time and space may be distorted. The effects are similar to LSD, but described as more natural and smooth. Effects have been described as “dreamy” and “drifty.” Users often experience nausea and other physical symptoms before the mental effects take over. Psilocybin can also increase a user’s heart rate and blood pressure. There is no evidence of physical or psychological dependency (tolerance develops rapidly, therefore daily use is unlikely). The main dangers of psilocybin are psychological: the possibility of a “bad trip” leading to feelings of fear, anxiety and disorientation. There are no known deaths from an overdose of psilocybin, but the drug’s psychic effect may provoke risky behaviour.

- Mushrooms are frequently collected at raves in the Lower Mainland. They have been found ground up and put in gelatin capsules, and in baggies as whole pieces of mushrooms.
- As with LSD, cross tolerance with other hallucinogens develops with the use of psilocybin. A period of abstinence is necessary to feel the effects of the drug.
- Using mushrooms in conjunction with MDMA is referred to as “hippy-flipping.” This is quite popular amongst ravers.



Other Associated Drugs — continued

DXM dextromethorphan

- Non-narcotic which produces narcotic effects
- Synthetic

OVERDOSE CAUTIONARY

The effects of DXM can be blocked by “Nalaxone” (Narcan), which is considered a pure opioid antagonist that reverses the respiratory depression that follows an overdose.

BACKGROUND DXM is an effective over the counter cough suppressant found in brand names such as Robitussin, Dimetane and Comtrex; it is included in many non-prescription preparations, which often have DM in their name.

DESCRIPTION DXM can be a liquid or a powder in tablet or capsule form.

SLANG Robo-dosing, White Diamonds

PACKAGING DXM is usually mixed with a stimulant such as methamphetamine, caffeine or ephedrine. A normal dose is 120mg per twenty-four hour period; abusers will take 300 to 900mg at one time.

PRICE \$20 per pill

CONSUMPTION Taken orally

REACTIONS DXM causes euphoria, auditory and visual hallucinations, and a loss of coordination. Many users liken the effects to those of LSD or mushrooms. A user will experience four plateaus: slight intoxication, hallucination, strong intoxication and hallucination, and sub-anaesthetic. Suddenly stopping chronic use of high doses of DXM may lead to withdrawal symptoms of dysphoria (feeling unwell and unhappy) and sleep difficulties.

- DXM has been collected from Lower Mainland raves in the form of tablets. Those pills were diamond and square shaped. The diamond tablets were analysed as DXM combined with caffeine or methamphetamine. They have also been seized in capsule form.



Other Associated Drugs — continued

PCP 1,1 -phencyclohexyl piperidine hydrchloride (phencyclidine)

- Dissociative anaesthetic
- Psychedelic anaesthetic

BACKGROUND

PCP is a synthetic drug that falls under the Controlled Drugs and Substances Act (CDSA). It is produced in clandestine labs in the USA and Canada. Developed by the Parke-Davis company in 1957 under the name “Sernyl,” PCP was tested as a general anaesthetic, but, due to unfavourable side effects, the drug was pulled from the medical investigative industry in 1965, and was never marketed to the health industry. It was later reintroduced as having use in veterinary science as Sernylan, but illicit use began and legitimate manufacture was discontinued. The only supplies of PCP now are illegal; there are no products containing PCP legally marketed for human use. Its illicit manufacturing process is relatively simple.

DESCRIPTION

(see colour section)

Pure PCP is a white crystalline powder, which is soluble in water. It is odourless with a metallic or bitter taste. Purity of PCP varies from being cut with diluents or adulterants such as stimulants, also from poor manufacturing.

SLANG

Angel Dust, Peace Pill, Elephant, Kools, Sherms, Ozone, Rocket Fuel, Embalming fluid.

PACKAGING

On the street, PCP is seen in tablets, capsules or powder in a variety of colours. PCP is often sold as another substance, such as synthetic THC, LSD or Methamphetamine, to unsuspecting buyers. The unexpected effects can be dangerous.

PRICE

\$20 to 25 per capsule

CONSUMPTION

Smoking PCP is the most common form of ingestion; this is done by sprinkling the powder on marijuana and rolling it into a joint; the peak effects will occur in about fifteen minutes. PCP is also taken orally (slower absorption), snorted or injected. Effects will last from two to five hours; a large dose can last up to forty-eight hours.

REACTIONS

PCP is a stimulant, depressant and hallucinogenic. It is a dissociative anaesthetic, which means it can induce a state of mind-body dissociation, along with inhibited logical thinking, euphoria, anxiety, and a decreased awareness of pain. PCP causes combative behaviour. A user’s blood pressure will usually increase, but respiration does not decrease. The effects of PCP vary from one user to another and from one drug taking episode to another. Reactions to high doses of PCP include convulsions, respiratory depression, cardiovascular instability, kidney failure and prolonged comas. Deaths from an acute overdose have occurred after estimated doses of 150 and 200mg. PCP is stored in the fat cells of the body and is released over time. Levels of intoxication can last for days, or even weeks. Because of this, PCP flashbacks are true chemical flashbacks caused by residual amounts of PCP being released from the body. There is a prolonged recovery phase after PCP usage, which is marked by confusion and delusions; this may last for up to two weeks. Physiological dependence and tolerance are observed as is emotional addiction.

- Not all people react the same way to this drug.
- PCP must be considered a very dangerous drug.
- Effects of PCP are dose related. They also depend upon the user’s past drug experience, current set and setting, and mode of ingestion.
- PCP was confiscated in large amounts during the late summer period of 1998. This coincided with the take down of a large clandestine laboratory, which was manufacturing Ecstasy in North Vancouver. PCP was often being sold as Ecstasy. Since this period, there has been a tapering in the amount of PCP being found.
- PCP has been, and continues to be, found in white powder capsules, and has been found mixed with marijuana in joints.
- PCP is easily obtained in the Lower Mainland.



Other Associated Drugs — continued

Ketamine

- Dissociative anaesthetic
- CNS Depressant

BACKGROUND Ketamine is a compound related in chemical structure and mechanism of action to PCP²², and structurally unrelated to any other psychedelic agents. It was first synthesized by the pharmaceutical company Parke-Davis in 1963 as an anaesthetic for veterinary surgery. It began to be abused as a recreational drug in the 1970s. Ketamine is manufactured as a veterinary drug under the names Ketalan (Parke-Davis), Ketajet, Ketaset (Fort Dodge) and Vetalan.

DESCRIPTION Ketamine is most commonly found as a white powder that is soluble in both water and alcohol, but may also be found as a clear liquid. It is odourless and tasteless.²²
(see colour section)

SLANG “K”, Special K, Super K, K-hole, CVR (chemical virtual reality)

PACKAGING The powder is found in small ziploc baggies.

PRICE \$10 to \$40 per capsule, liquid or paper

CONSUMPTION Ketamine can be ingested, injected intramuscularly or intravenously, smoked like “crack” or snorted. Depending on the route of administration, Ketamine can begin to act within two minutes after being taken. On average, reactions begin to occur between five and ten minutes after dosing, and last for about two to four hours. An average injected dose would be about 50 milligrams; a snorted dose ranges from 60 to 200 milligrams.

REACTIONS Ketamine can produce hallucinations, euphoria, a floating sensation, confusion, dizziness, slurred speech, and a loss of sense of time and identity. Use leads to a feeling of disconnection of the mind and body. Ketamine causes intense visual distortions and an inability to feel pain. An average size dose does not usually lead to unconsciousness. A high dose can lead to respiratory depression, convulsions, combative behaviour and even comas. Regular users may experience flashbacks. Ketamine is very psychologically addicting. It is not known if tolerance develops, however, anecdotal evidence suggests that it does.

- Ketamine mixed with other drugs, including alcohol, is extremely dangerous and offers little psychedelic value. Because of Ketamine’s anaesthetic abilities, it is a very potent drug.
- Harm from accidents is a concern with Ketamine use, due to the “intensity of the dissociative state and loss of physical control.”¹¹
- A study on the effects of Ketamine found that immediately after ingesting the drug, users were profoundly impaired, as compared to controls, on a number of cognitive measures. There was also pronounced dissociation. Three days later, the drug users still showed impairment, particularly with working memory.¹⁹
- Through the investigation, Ketamine has been successfully obtained in both powder and liquid forms. The liquid form was found to be in combination with GHB. The powdered Ketamine was confiscated as a white powder wrapped in foil and in ziploc baggies. Ketamine is becoming very common, and can be easily obtained.
- Ketamine can be used as a date rape drug. In September 2000, a local university had an incident where a female student was found unconscious on campus; her unconscious state was found to be the result of ingesting Ketamine. No assault occurred, however due to her unconscious state, one could have easily happened.



Other Associated Drugs — continued

Fentanyl

- Synthetic Narcotic (Opioid)

BACKGROUND

Fentanyl is a powerful and quick acting synthetic narcotic producing effects similar to heroin, but hundreds of times more potent; street fentanyl can be 100 to 200 times more powerful than regular heroin. Fentanyl is 80 to 100 times more potent as an analgesic than morphine. Once marketed under the trade name Sublimaze, Fentanyl is used extensively for anaesthesia and analgesia. Introduced to the medical community in 1968, by 1979 Fentanyl's illicit chemical analog (alpha-methyl fentanyl) hit the streets as "China White," or "synthetic heroin." In 1983, an even more powerful analog, 3-methylfentanyl, was introduced with an effective dose of only 0.05mg. Fentanyl is produced by the pharmaceutical industry, and in illicit laboratories for street sale.

DESCRIPTION

Fentanyl is visibly comparable to heroin by colour and texture (white, crystalline powder in pure form).

SLANG

China White, China Town, China Girl, Synthetic Heroin

PACKAGING

Ziploc baggies or paper flaps.

CONSUMPTION

Fentanyl is usually used intravenously, but can be smoked or snorted.

REACTIONS

Fentanyl acts on the brain in much the same way as heroin (experienced users reportedly cannot tell the difference); the main difference is the potency. Users will experience nausea and vomiting, constipation, decreased blood pressure, constricted pupils, depression, drowsiness, muscle rigidity, respiratory depression, sweating and confusion. Their psychological reaction could be one of either euphoria or anxiety. A user may overdose unexpectedly on a potent dose not diluted enough. This may lead to loss of consciousness and breathing which may be treated with Nalaxone. Physical and psychological dependence develop with the use of Fentanyl, as does tolerance. Cross-tolerance to the analgesic effects of other opiates also occurs.

- Fentanyl has had many deaths attributed to it.
- To date, no Fentanyl has been collected from Lower Mainland raves.



Other Associated Drugs — continued

Cannabis (Marijuana)

- Sedative-Euphoriant-Psychedelic

BACKGROUND



Cannabis is a green leafy bush with small oval seeds, long thin leaves, flowers varying in colour from light-green to brownish-green, and a distinct, skunk-like smell. The plant is not native to North America, but was likely brought by European settlers and used for its hemp fibre. It was not until the 1960's that the use of cannabis as a psychedelic became widespread. Cannabis is the most frequently used illicit drug in North America. The psychedelic effect of marijuana comes mostly from delta-9-tetrahydrocannabinol (delta-9-THC or THC); its chemical structure is unique. There are no generally accepted medical uses for cannabis. High grade marijuana will yield 12% to 20% "THC".

DESCRIPTION

(see colour section)

THC is a sticky, sap-like substance, found in the resin on the plant. Dried marijuana plants are typically dull green or brown. Cannabis can be processed as marijuana, hash or hash oil.

SLANG

Grass, Weed, Reefer, Mary Jane, Ganja, Joint, Buds, Dope, Pot.

PACKAGING

Marijuana is most often seen in plastic ziploc baggies, or small plastic film cannisters.

PRICE

\$10 per gram

CONSUMPTION

Users most often smoke marijuana (in hand-rolled joints, pipes, bongs, or blunts). Smokers inhale deeply, then hold their breath to maximize the absorption of THC. An average dose as a result of a group smoking one joint is between 0.4 and 10 milligrams. Cannabis is also consumed orally, usually through being put into baked goods, such as brownies.

REACTIONS

Consumption of cannabis leads to an increased heart rate, moderately increased blood pressure, reddening of the eyes (not blood shot), a slight decrease in body temperature, and dry mouth and throat. It also reduces judgement, decreases attention span and impairs motor coordination. Cannabis use may accentuate feelings of hunger. Smoking marijuana adversely affects the respiratory system; acute, chronic bronchitis symptoms can develop. The strength of psychological effects will depend on the dose administered. These will range from feelings of well-being, euphoria and relaxation to mood changes, a distorted sense of time and occasionally sudden anxiety or panic. Pseudo-hallucinations occasionally occur at higher doses. Tolerance develops to the psychoactive effects with regular use; use may also lead to psychological and mild physical addiction. Stopping long-term, regular use suddenly can result in withdrawal symptoms such as sleep disturbances, anxiety, restlessness, sweating, and nausea.

- Cannabis use may trigger latent schizophrenia, which may be experienced indefinitely.
- There are no reports of users dying as a result of overdosing on cannabis. However, the drug contributes indirectly to deaths through incidents such as car accidents.
- Some users believe smoking marijuana a few hours after ingesting Ecstasy brings back the MDMA high.
- Researchers in a 1999 study in the Netherlands on the effects of marijuana on driving stated: "THC effects are dose-related and persist unabated or even increase during 2 ½ hr after dosing," and "Poor attention to the driving task and deficient control over the vehicle's speed and lateral position were the most frequently observed signs of the subjects' impairment." (Robbe, H.W.J. and J.F. O'Hanlon. 1999. "Marijuana, Alcohol and Actual Driving Performance." *Institute for Human Psychopharmacology, Maastricht University.*)



Other Associated Drugs — continued

Nitrous Oxide N₂O

- Inhalant / anaesthetic gas
- CNS depressant

BACKGROUND

Nitrous Oxide has been around since the eighteenth century; it was first discovered in 1772, but not used for pain relief until the mid-1800s. N₂O has been used in various industries: surgical, dental, dairy farming, diving and auto racing. It is still widely used in dental surgery; use as a medical gas is declining. Nitrous Oxide has since taken on recreational abuse.

DESCRIPTION

(see colour section)

N₂O is a colourless gas that is a weak anaesthetic, but strong analgesic, and may have irreversible damages if abused.

SLANG

Nitro, Laughing Gas

PACKAGING

Nitrous Oxide comes in various forms including: whippets (small cylindrical dispensers, as used in whip cream cans), crackers (made solely for recreational purposes; can be metal or plastic), balloons, charging bottles and tanks.

PRICE

\$10 per box of ten whippets

CONSUMPTION

N₂O is usually inhaled from either a whippet or cracker, or through continuous breathing of the gas. Many users hyperventilate a minute or two before inhaling.

REACTIONS

Nitrous Oxide, although classified as a weak anaesthetic, can produce frightening effects. To achieve the desired effects, it must be inhaled at concentrations of 50% or greater, simultaneously mixing at least a 20% concentration of Oxygen to avoid hypoxia (decreased O₂ content in the blood, which may lead to unconsciousness or irreversible brain damage). The stimulatory effects occur within eight to ten seconds of inhalation, with maximum effects lasting only two to three minutes. N₂O results in mild euphoria, loss of motor control, nausea, possible frostbite (gas from the tanks is extremely cold), and behavioural disinhibition. Long term exposure to Nitrous Oxide can lead to central and peripheral nerve cell and brain cell damage, due to a lack of sufficient Oxygen. There is a degree of psychological dependence that can develop with use of N₂O.

- Nitrous Oxide has been confiscated from Lower Mainland raves in the form of whippets.
- Nitrous Oxide carries a risk of suffocation: inhaling highly pure N₂O (97% in whippets) deprives the body of Oxygen.



Other Associated Drugs — continued

Caffeine (legal high)

- Stimulant

BACKGROUND Caffeine was identified in 1821 as the active ingredient of coffee. It is found in more than sixty plant species, and is most commonly found in a number of beverages (coffee, tea, pop) and chocolate. It is also found in non-prescription products such as “Stay Awake,” “Wake-up” and “Alert.” Caffeine is the most commonly used stimulant drug in the world (82 to 92% of North American adults regularly consume some form of caffeine). Caffeine is also found in over the counter headache relief such as ASA, acetaminophen, and codeine combinations. It may also be an ingredient in street stimulant preparations (i.e. with ephedrine).

DESCRIPTION In its pure form, caffeine is an odourless, silky, white powder or a white, crystalline powder.

SLANG Buzz Bombs

PACKAGING Pills in bottles.

PRICE \$10-20 per bottle

CONSUMPTION Caffeine is mainly taken orally, but may be taken intravenously, intramuscularly or rectally. It is readily available and socially acceptable in beverages and foods. Caffeine pills, or “wake-ups,” are common at raves, as is caffeine in combination with other drugs such as ephedrine and Ecstasy. Effects take about fifteen to forty-five minutes for onset, and peak at between thirty minutes and an hour.

REACTIONS The effects of caffeine at low doses are increased alertness, increased heart rate and blood pressure, and a temporary reduction in fatigue. High doses of caffeine can cause mental confusion, nervousness, insomnia, rapid heart beat and body twitching. Tolerance does develop, but varies individually; most regular users do not feel the need to increase their daily dose. Decreasing or abruptly stopping use can result in withdrawal symptoms including: headaches, drowsiness, fatigue and decreased activity and alertness. Former users may also have nervous and jittery feelings while going through withdrawal. Caffeine is known to be fatal at a dose of ten grams (about 100 cups of coffee), but this occurrence is extremely rare. The International Olympics Committee has banned the use of large amounts of caffeine by athletes.

- Caffeine pills are confiscated at almost every Lower Mainland rave. As previously stated, they are often found in combination with other substances.
- Despite being a popular belief, caffeine is NOT an antidote to alcohol intoxication.



Other Associated Drugs — continued

Ephedrine/Pseudoephedrine (legal high)

- Stimulant
- Decongestant

BACKGROUND

Ephedrine and Pseudoephedrine are found in nasal decongestants and pill preparations. Ephedrine is a naturally occurring stimulant from the plant *Ephedra equisetina*. Pseudoephedrine is a synthetic stimulant found in medications such as “Sudafed.” Ephedrine has mild anorexic effects, and is also used for the symptomatic relief of asthma. Both substances are banned by the International Olympics Committee and other sport’s bodies.

DESCRIPTION

(see colour section)

Pure ephedrine sulphate is a white, crystalline powder with a bitter taste.

PACKAGING

Ephedrine and Pseudoephedrine are commonly found in pill form and vary from white to red and orange or brown in colour. The relative size of the pills confiscated in the Lower Mainland is large.

PRICE

\$15 - 20 for a bottle of 100 25mg tablets

CONSUMPTION

These substances are taken orally as pills or capsules.

REACTIONS

Ephedrine is used medicinally as a nasal decongestant, but is also taken in higher doses to produce hallucination and stimulation similar to that of caffeine. High doses can also cause anxiety, restlessness, dizziness, sweating, increased heart rate and blood pressure, and confusion. It is also sold as weight loss pills. Ephedrine/Pseudoephedrine is very common in the rave scene, and usually seen in combination with other stimulant drugs. Most often it is combined with caffeine and aspirin in what is known as the “ECA stack” (20mg E, 20mg C, 325mg A). The body can develop a tolerance to the “stack” over a one to three week period, at which time the body needs to start to recuperate from an overactive metabolism. The “stack” is popular since it is a very cheap combination and results in an increase in energy.

- Ephedrine and Pseudoephedrine are considered safe alternatives by ravers, but they very much resemble other drugs. These drugs have been obtained from numerous raves in various forms and colours.
- Those who use these substances (and other legal alternatives) do not follow the recommended dosages, but are taking numerous pills at once.



Other Associated Drugs — continued

Ephedra

- Herbal Stimulant

BACKGROUND Ephedra is an unattractive shrub that grows around the world and contains the alkaloid ephedrine (the active ingredient). *Ma Huang* is the Chinese variety, which is the most popular, as it is also the most potent. Ephedra sales and marketing are limited to a specific dose, or quantity, as its consumption has been abused and can lead to many illnesses. Ephedra is the key ingredient in many legal highs.

DESCRIPTION Ephedra is seen in pills and capsules, and can also be a tea.

SLANG Those products that contain over the specified doses are referred to as: Herbal Ecstasy[®], Cloud 9[®], and Ultimate Xphoria[®].

PACKAGING Ephedra is generally in pill form, in a variety of colours from white to red and blue.

PRICE \$10-15.00 per bottle

CONSUMPTION Ephedra is taken orally.

REACTIONS In excess, ephedra can produce an increase in heart rate, metabolism and blood pressure. It can also lead to insomnia.

- Some ephedra pills seized at Lower Mainland raves have had characteristic markings in the shape of a butterfly or the letter “e.”



Drug-Facilitated Sexual Assault

Drug-facilitated sexual assault is a real problem, the full extent of which is difficult to measure. Many victims do not report incidents immediately, or at all, making it difficult to accurately measure the occurrence of this type of assault.²⁰ This type of assault is often called “date-rape,” which is misleading, as drug-facilitated sexual assaults can occur anywhere including parties, bars and clubs as well as on dates.²¹ The drugs most people associate with drug-facilitated sexual assault are Rohypnol, Ketamine and GHB. However, many drugs are used as sexual assault facilitators including: alcohol, amphetamines, barbiturates, benzodiazepines, cocaine, marijuana, opiates and prescription sedatives.²¹ All of these substances can impair judgement and motor coordination, and cause memory problems, disinhibition, confusion and drowsiness.

Rohypnol (Flunitrazepam) is a sedative-hypnotic which causes muscle relaxation and amnesia; it can be lethal when mixed with alcohol. Some slang terms are “rophies,” “roofies,” “roach” and “rope.”²¹ Roche, the company which manufactures this drug has recently added a blue dye to it and made it less water-soluble, making Rohypnol more noticeable if it has been added to a beverage. Rohypnol is not manufactured or marketed in Canada or the US.²² There is one confirmed report of Rohypnol being used in sexual assault in Canada.

GHB (Gamma-hydroxybutyrate) is a Central Nervous System (CNS) depressant which causes amnesia, nausea, vomiting, drowsiness, dizziness, hypertension, a lack of coordination, impaired memory and impaired judgement. (See page 30 for full information).

Ketamine is a dissociative anaesthetic and CNS depressant which can lead to hallucinations, euphoria, confusion, dizziness, slurred speech, and a loss of sense of time and identity. (See page 35 for full information)

Safe Raves and Harm Reduction

There are a number of organizations in North America and around the world which promote harm reduction and what they call “safe raving.” One of the largest, and the one that operates within Greater Vancouver, is DanceSafe (www.dancesafe.org). They are a non-profit, harm reduction organization, with their head office in Oakland, California.

DanceSafe has local chapters in thirteen North American cities; Vancouver and Calgary (www.Calgaryravesafe.com) are the only Canadian city to date. The organization involves young people from the Rave scene as volunteers who man booths at raves and other events. These volunteers hand out information on drugs, safer sex and other health and safety issues relevant to ravers (i.e. impaired driving, hearing damage). In the US, DanceSafe provides a pill testing service where an individual can send in a pill for laboratory analysis to determine the constituents and purity of it. Pills are not returned, but results are posted on the Website. DanceSafe also sells “Ecstasy Testing Kits” which indicate the presence of a drug in a pill; these are similar to RCMP field tests (see Appendix II).

DanceSafe operates under the harm reduction idea that youth are going to experiment with drugs so there is no point in trying to stop them,

HOW TO KEEP YOURSELF SAFE^{21,22}

1. Do not leave your beverage unattended.
2. Do not take beverages, including alcohol, from anyone you do not know well, or feel you cannot trust.
3. At a bar or club, accept drinks only from the bartender or server.
4. Go with friends and agree to look out for each other. Anyone who is extremely intoxicated after consuming only a small amount of alcohol may be in danger.
5. Never go out with, or home with, anyone you do not know well.
6. Never leave a friend who is displaying effects of a date-rape drug.

WHAT TO DO IF YOU SUSPECT YOU HAVE BEEN DRUGGED²⁴

1. If you feel dizzy, confused or other unexplained symptoms after drinking a beverage, get to a safe place by calling a friend, family or the police. If you think you’ve been drugged, go to the hospital emergency room as soon as possible.
2. If you suspect you have been drugged and sexually assaulted, go to the hospital emergency room. Contact a sexual assault centre or crisis hotline for information and support.
3. Police can be contacted immediately or from the hospital; request a substance test as soon as possible.
4. Try to keep a sample of your beverage for analysis.



rather, safe drug use practices should be encouraged. DanceSafe states they neither condone nor condemn the use of drugs. They claim many are going to choose experimentation despite the risks. Therefore, they are trying to educate people about those risks so they can make healthy choices.

Another large organization is Rave Safe (www.pcb.co.za/users/ravesafe/home.htm), which started in South Africa in 1993. They are also involved in drug education and harm reduction through handing out information at rave events. They believe everyone is entitled to honest information about drugs and their effects in order to make informed decisions. Rave Safe’s motto is “Knowledge is Power.”

In Toronto there is the Toronto Raver Info Project (TRIP). This group is made up of ravers who want to educate about and promote healthy partying. TRIP wants to help ravers be as healthy as possible while using drugs. One of their education initiatives is on how to be careful in purchasing drugs. Another initiative is their “Overdose Card” that outlines how to spot and deal with an overdosing individual (www.city.toronto.on.ca/drugcentre/overdose.htm).



Rave Bylaws, Permits and Regulations

A number of cities in the Lower Mainland, and across Canada have imposed city bylaws or regulations pertaining to Rave parties. These include Richmond, Vancouver, Toronto and Calgary. Other cities around BC and across Canada are looking at doing the same. The main purpose is to ensure safe, legitimate events. These regulations are not an attempt to eradicate raves from the cities. All the cities' regulations have some major components in common such as medical, safety and security requirements, review process, and licensing specifications.

RICHMOND EVENT REGULATION (RAVES) BYLAW 7141, JULY 2000

Some components of this bylaw include: a \$100.00 fee for promoter's permit, a ten day review process, requisite Richmond business license, specified first aid, security, cleanup and parking provisions, and provision of additional police forces (at promoter's expense). There are two bylaw approved venues in Richmond for Rave parties. A Rave, as defined in the bylaw, is basically a dance or other entertainment performance with 50 or more people, any time between 2:00am and 6:00am (full definition is included in the bylaw). As of January 2001,

Bylaw 7141 is still in effect but a new bylaw, 7202, has been proposed as a replacement. The suggested amendments include: limiting the number of events to three each month on Saturdays only, requiring one million dollar liability insurance purchased by the promoter and five million dollar coverage by the banquet hall owners, both of which must name the City as covered by the policies, increasing the processing time for applications would to six weeks, holding public consultations on proposed new rave sites, and charging a flat fee of \$5400 for additional RCMP services.

- www.city.richmond.bc.ca/council/meetings/072400/072400_bylaw7141.pdf

- www.city.richmond.bc.ca/council/general_purposes/2001/011501/011501_item3.pdf

VANCOUVER LATE-NIGHT DANCE PARTY REGULATIONS, BYLAW 8138 (S. 19.2 IN LICENSING BYLAW 4450)

The City of Vancouver Rave bylaw is included in the City Licensing Bylaw. Applications for permits are reviewed by the Festival Expediting Staff Team (FEST Committee), which includes members of the City of Vancouver Film Office, Permits and Licenses Department, Planning Department, Vancouver Police, Vancouver Fire and Rescue, and Vancouver Richmond Health Board. Applicants must submit business licenses, security plans, insurance coverage, and a reference letter from the proposed venue. Promoters are required to provide a minimum of six weeks notice to FEST, and submit to criminal record checks. The fees for applying are: \$200.00 for events with less than 350 attendees, \$350.00 if attendance is 350 to 749, \$600.00 for events with 750 to 1999 people, and \$800.00 for Raves expecting 2000 or more.

- www.city.vancouver.bc.ca/fire/services/permits.html

- www.city.vancouver.bc.ca/bylaws/12353v8.pdf

TORONTO PROTOCOL FOR SAFE OPERATIONS OF A RAVE, DECEMBER 1999

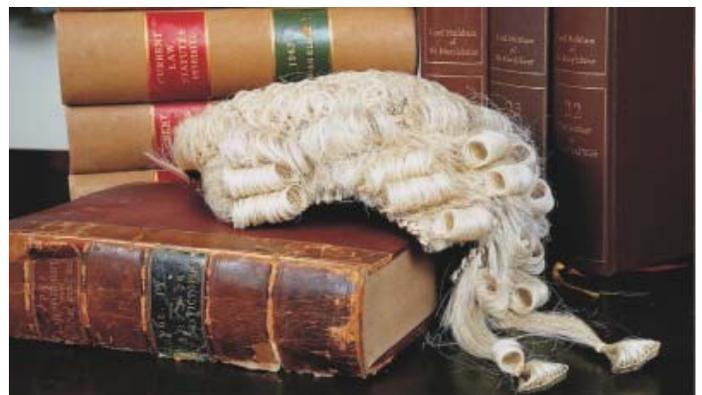
Toronto has a Dance Safe Committee which is made up of City Council members, departmental staff, rave promoters, security, ravers, lawyers and others. In recognizing the need for governmental bodies to regulate raves, they developed the Protocol, which was approved by Council on December 15, 1999. It contains an extensive list of regulations including: zoning of the venue, access to water, toilets and fresh air, security requirements, ambulance services, and drug and health education provisions. In June 2000, the Coroner released a report on the inquest into the rave death of Allen Ho in October 1999. This report included 19 recommendations on raves. These included: a minimum age of 16 for rave attendees, entrance refusal for all who show up in possession of drugs, development of educational strategies (including harm reduction based strategies), and the need to have a paid uniformed officer at the entrance. The focus of the recommendations was on providing safe venues for these events. (www.city.toronto.on.ca/drugcentre/ravewise/inquestrecom.htm). Most recently, Ottawa City Council adopted a set of regulations concerning raves in their city. These regulations were modelled after those in Vancouver and include a permit process, contracted police and security at all events, a minimum age limit of 16 years, and than all liabilities are the responsibility of the promoters. (www.city.ottawa.on.ca/calendar/ottawa/citycouncil/occ/2001/04-11/psb/psb_rprt1.htm) There is currently a Private Members Bill (Bill 73) in Ontario Provincial Legislature, which will regulate raves in the province if passed.

- www.city.toronto.on.ca/drugcentre/ravewise/ravewise.htm

CALGARY EXTENDED DANCE EVENT BYLAW #34M2000, JULY 2000

The City of Calgary has defined Raves as gatherings lasting more than five hours with the primary purpose of listening and dancing to music. Promoters need to acquire a license before they can sell tickets to the event. Applications must be made 45 days in advance of the party, and a \$250.00 fee paid. This license is valid for one party only. Promoters must submit a detailed event plan including provisions for security and medical services.

- www.gov.calgary.ab.ca/cityclerks/documents/bylaws



Appendix I - Drug Prices

DRUG	PRICE	PER UNIT
MDMA	\$20-30	capsule or tablet
MDA	\$20-30	capsule or tablet
2C-B	\$20-25	capsule or tablet
MDE	\$20-25	capsule or tablet
Methamphetamine	\$10-15	1/10 gram
Methaqualone	\$20-30	tablet
GHB	\$10-20	vial (4-5ml of liquid)
LSD	\$5-10	hit

DRUG	PRICE	PER UNIT
Mushrooms	\$12-15	gram
DXM	\$20-30	tablet
PCP	\$20-25	capsule
Ketamine	\$10-40	capsule, liquid or paper
Nitrous Oxide	\$10	box of whippets
Ephedrine	\$15	bottle
Ephedra	\$8-15	bottle

Note: The prices listed above are for the Lower Mainland region of British Columbia.



Appendix II - Field Testing

Field tests consist of sulphuric acid, to which the substance in question is added. They are known as Marquise or Heroin Tests. Appropriate care should be exercised in its use. Spills should be neutralized with baking soda and washed with lots of water. Note the colour change that occurs in the **first ten seconds**.

DRUG	COLOUR
Amphetamine	Orange-brown
Methadone	Colourless
Morphine	Magenta
Benadryl	Yellow
MDMA	Black
Speed/Methamphetamine	Orange-brown
Cocaine	Colourless

DRUG	COLOUR
MDA	Violet/black
Caffeine	Pale Yellow
Codeine	Red/violet
Heroin	Magenta
PMA	No Reaction
PCP / Ketamine	No Reaction

- This testing only indicates the presence of a drug. It does not show percentage, purity, combinations or other side products. •

**FIELD TESTS GIVE THE USER/TESTER A FALSE SENSE OF SECURITY.
THE ONLY ACCURATE WAY TO TEST STREET DRUGS IS IN A LABORATORY.**

Appendix III - The Law



CONTROLLED DRUGS AND SUBSTANCES ACT (CDSA)						
<i>Offence</i>	<i>Schedule I</i>	<i>Schedule II</i>	<i>Schedule III</i>	<i>Schedule IV</i>	<i>Schedule V</i>	<i>Schedule VI</i>
SUBSTANCES	Heroin PCP Cocaine Morphine Methadone Opium Codeine DXM*	Cannabis Cannabis Resin	Ecstasy MDE MDA MMDA 2C-B Psilocin LSD GHB Methamphetamine Methaqualone PMA DOB STP DOM Amphetamines Mescaline	Barbiturates Anabolic Steroids Librium Valium	Chemicals (<i>Drugs that cannot be abused</i>)	Precursors Ephedrine Pseudoephedrine P2P
POSSESSION	Contrary to S. 4(1)	Contrary to S. 4(1) (if hash > 1g, marij. > 30g no fingerprint)	Contrary to S. 4(1)	Legal	Legal	Legal
DOUBLE DOCTORING	Contrary to S. 4(2)	Contrary to S. 4(2)	Contrary to S. 4(2)	Contrary to S. 4(2)	Legal	Legal
TRAFFICKING	Contrary to S. 5(1)	Contrary to S. 5(1)	Contrary to S. 5(1)	Contrary to S. 5(1)	Legal	Legal
IMPORTING EXPORTING	Contrary to S. 6(1)	Contrary to S. 6(1)	Contrary to S. 6(1)	Contrary to S. 6(1)	Contrary to S. 6(1)	Contrary to S. 6(1)
POSSESSION FOR EXPORTATION	Contrary to S. 6(2)	Contrary to S. 6(2)	Contrary to S. 6(2)	Contrary to S. 6(2)	Contrary to S. 6(2)	Contrary to S. 6(2)
PRODUCTION	Contrary to S. 7(1)	Contrary to S. 7(1)	Contrary to S. 7(1)	Contrary to S. 7(1)	Legal	

* DXM - excluded from Schedule I; often DXM is found in combination with methamphetamine which is listed.

** Ketamine is not listed in the CDSA as a scheduled drug. It is listed in the Food and Drug Act (FDA) as a Schedule F substance; regulations prohibit sales by anyone other than a pharmacist, physician, etc. Contravention of the FDA regulation is an offence under S. 31 of the FDA, Section C.01.041. (1.1) of the FDA Regulations.

Appendix IV - Ecstasy Research

Research on MDMA is a recent event when compared with the study of other drugs. Most Ecstasy studies have been done within the last ten years. This means that the knowledge base on the effects of Ecstasy is relatively limited. Another problem concerning MDMA research is that most of the studies done have used animals as test subjects. This is due to ethical problems involved with testing the effects of illegal substances on humans. Those studies done on human ecstasy users often use small, non-random samples of polydrug users without a proper control group, making the results questionable. There is a need for longitudinal scientific study.

Two of the most recent studies on Ecstasy have involved aspects of users' memory. Researchers in Toronto¹ studied 15 users over the course of a year. Participants completed neuropsychological tests at the beginning and end of the one year period. These tests focussed on episodic (remembering things seen or heard earlier) and prospective (remembering to do a common or particular task) memory. The greatest memory deficits were seen in their episodic memory. A study with similar results comes from the UK.² This research compared Ecstasy users and nonusers on memory impairment. The users were found to have significant impairments in prospective memory, which would have an effect on everyday functioning.

The biggest area of study is on the possibility of neurotoxicity caused by MDMA, in the form of serotonin damage or depletion. Serotonin is a brain chemical that functions as a neurotransmitter and is directly related to mood. This type of neurotoxicity has been seen in primates; there is also evidence of this effect in humans, specifically on central 5-HT system function.^{3,7} NIDA sponsored research used brain imaging to show damaged serotonin releasing neurons, with heavier users showing

more damage.⁵ An autopsy of a chronic user showed a 50 to 80 percent depletion of serotonin.⁸ Studies have also shown that a higher body temperature increases the neurotoxicity of MDMA.⁶ Due to the nature of rave parties, this information is of great concern. Raves are in crowded venues, with patrons involved in intense dancing which leads to higher body temperatures. It is not yet known whether this serotonin damage is permanent, or what the long term psychological and behavioural effect might be.

An exact toxicity threshold for MDMA cannot be determined as there is no average response to any particular dose of MDMA.⁶ Acute toxicity is seen in states such as hyperthermia, convulsions, kidney failure and hyponatremia.^{6,11}

Studies have also looked at possible cognitive, behavioural and emotional problems resulting from Ecstasy use. Gouzoulis-Mayfrank, E. et al. found recreational MDMA users to perform worse than non-using controls in attention, memory, and general intelligence tasks.⁴ Significant impairments in verbal and visual memories have also been noted.^{6,9,10} Significant mood changes have also been observed.^{7,9}

Deaths can be caused by a number of different toxicities resulting from Ecstasy use. These include hepatic (jaundice/hepatitis), cardiovascular, cerebral (hyponatremia/seizures), and hyperpyrexia (heatstroke). Deaths have also been attributed to the depression felt after taking Ecstasy and risk-taking behaviour due to use.¹¹ There has only been one reported Ecstasy related death in BC. However, there are more across Canada. In Ontario, there have been fourteen Ecstasy related deaths since 1998. Six of these deaths were in the Greater Toronto Area and were caused solely by pure Ecstasy; no other drugs were present.¹²

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Appendix V - For More Information

WEBSITES

RCMP “E” Division Drug Awareness Service	www.rcmpda.com
Drug Education and Awareness for Life (DEAL)	www.deal.org
National Institute on Drug Abuse (NIDA)	www.nida.nih.org
NIDA Club Drugs	www.clubdrugs.org
Prevention Source BC	www.preventionsource.bc.ca
Street Drugs	www.streetdrugs.org
MDMA (Ecstasy) Research Articles	www.erowid.org/chemicals/mdma/articles
Office of National Drug Control Policy (US)	www.whitehousedrugpolicy.gov

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CONTACT

RCMP ‘E’ Division Drug Awareness Service	(604) 264-3029 (ph.) (604) 264-2649 (fax) www.rcmpda.com
RCMP Forensic Toxicology Lab	(604) 264-3501
Poison Control BC (Emergency Help)	(604) 682-5050 (Lower Mainland) 1-800-567-8911 (Provincewide)



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- 13 MMDA (3-methoxy-4,5-methylenedioxyamphetamine)
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- 14 PMA (paramethoxyamphetamine)
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- 43 Rave Bylaws, Permits and Regulations
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- 7 Rave Infrastructure
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- 42 Safe Raves and Harm Reduction



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Rave culture in British Columbia (Canada) is growing. Equally growing is the increase in Drugs that once were only associated to this culture. We now see evidence on a daily basis that these drugs (Ecstasy, MDA, Methamphetamine, PCP, Ketamine, GHB, Magic Mushrooms, LSD, Marihuana) have gone mainstream. The drugs discussed in this publication can be obtained anywhere including Raves, Night Clubs, House parties, schools and on the street.

This book will give an in-depth understanding of Raves, the drugs, and the health risks, so you can effectively enforce laws, create regulations, counsel and treat individuals who have become dependent upon the culture and or drugs.

Produced by ADIC and RCMP Drug Awareness Service, Drug Enforcement Branch
"E" Division, British Columbia, Canada

PROVINCIAL OFFICE Phone: (604) 264-3029 Fax: (604) 264-2649
visit our homepage at: www.rcmpda.com

