Positive Choices
Drug and Alcohol Information
Get informed, stay smart, stay safe

Factsheet

Polydrug Use: Factsheet

Evidence ratings:

This resource has undergone expert review. See our Help/Q&A section for more details.

Year: Year 9–10, Year 11–12

Targeted Drugs: Drugs (General)

Tags: high-risk

Time Allocated: Partial lesson (under 45mins)

Origin: Australian

Cost:
Free

What is Polydrug use?

Mixing drugs or taking one drug when under the influence of another drug is known as polydrug use. Combining drugs in this way carries extra risks and can be extremely dangerous. The more drugs a person takes (or is affected by) at a time, the more chance there is of something going wrong.

An example of polydrug use would be smoking cannabis after drinking alcohol. Mixing alcohol with drinks that contain caffeine is another example.

What are the effects of Polydrug use?

The effect of mixing drugs depends on which drugs are mixed together. The effects of one drug are hard to predict and are affected by:

- The drug itself (e.g. its purity, amount used, frequency of use, how the drug is used, whether the drug has been cut, or mixed with another drug);
- The person who is using the drug (e.g. their mood, expectations, personality and individual characteristics);
- The setting (e.g. where the person is, the people they are with).

Using more than one drug at a time makes the effects even more unpredictable. On top of all the factors listed above, the effect of mixing drugs depends on which drugs are mixed together. Combining drugs that have the same physical effects (e.g. two or more stimulants, or two or more depressants) is especially dangerous. This is because it increases the impact on the normal functioning of the brain and body.

Below are some possible effects of combining different combinations of drug types:

Combining Stimulants e.g. cocaine and MDMA/ecstasy		Serotonin syndrome Psychosis Anxiety or panic attacks Heart problems
Combining Depressants e.g. benzodiazepines and alcohol		Accidents or injury through feeling 'out of it' Fatal overdose as a combination of depressants working together to slow down both the heart and breathing rate Nonfatal overdose, which can result in permanent brain damage

Combining Stimulants and Depressants

e.g. caffeine and alcohol

Heart problems

Respiratory infections and bronchitis

Dehydration, overheating, and kidney failure

Evidence Base

This factsheet was developed following expert review by researchers at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney, the National Drug & Alcohol Research Centre at the University of New South Wales, and the National Drug Research Institute at Curtin University.

Sources

1. MIMS online, 2012. MIMS online accessed 23 August 2012 via UNSW www.mimsonline.com.au.
2. Nichols, D.E., 1986. Differences Between the Mechanism of Action of MDMA, MBDB, and the Classic Hallucinogens. Identification of a New Therapeutic Class: Entactogens. Journal of Psychoactive Drugs. 18(4): p. 305-313.
3. Berney-Meyer, L., Putt, T., Schollum, J. and Walker, R., 2012. Nephrotoxicity of recreational party drugs. Nephrology. 17(2): p. 99-103.
4. Silins, E., Copeland, J. and Dillon, P., 2007. Qualitative review of serotonin syndrome, ecstasy (MDMA) and the use of other serotonergic substances: hierarchy of risk. Australian and New Zealand Journal of Psychiatry. 41(8): p. 649-55.
5. Darke, S., Kaye, S., McKetin, R. and Duflou, J., 2008. Major physical and psychological harms of methamphetamine use. Drug and Alcohol Review. 27(3): p. 253-62.
6. Farooq, M.U., Bhatt, A. and Patel, M.B., 2009. Neurotoxic and Cardiotoxic Effects of Cocaine and Ethanol. Journal of Medical Toxicology. 5(3): p. 134-138.
7. National Cannabis Prevention and Information Centre, 2011. Cannabis and tobacco use, National Cannabis Prevention and Information Centre, University of New South Wales: Sydney.