Paramethoxyamphetamine (PMA)

What is PMA?

PMA is a methoxylated phenethylamine derivative. It is related in chemical structure and pharmacological properties to methylenedioxyamphetamine (MDA), methylenedioxymethylamphetamine (MDMA), methylenedioxyethylamphetamine (MDEA), and mescaline. Although often sold as 'ecstasy', PMA is structurally most similar to mescaline and subsequently has strong hallucinogenic properties.

PMA was first encountered in the illegal drug market in the 1970s. Within a few years, PMA had been associated with several fatalities in Canada and subsequently earned the street name 'death'. PMA resurfaced in the 1990s in Australia and was again associated with a number of fatalities, particularly in South Australia. These deaths primarily occurred amongst people who thought they were consuming ecstasy.

PMA is also known as: 4-methoxyamphetamine, 4-MA, 'death', 'Dr Death'

Pure PMA is a white powder, but forms found on the street can also be beige, pink, or yellowish. It may knowingly be used on its own in order to increase the effects of MDMA; however, more often than not, PMA is sold as 'ecstasy' in either pill or capsule form. In these cases, it comes in a variety of different colours and with a variety of different logos, and is usually indistinguishable from ecstasy. This can be extremely dangerous since PMA has a higher potency (i.e. effects at lower doses) and a more delayed onset of activity than MDMA, and as such it is easier to overdose on PMA. High dosages of PMA can lead to sudden, large and potentially fatal increases in blood temperature, body temperature and blood pressure.

How many people use PMA?

There are no reliable estimates regarding rates of PMA use in Australia. The **2015 Ecstasy and related Drugs Reporting System (EDRS)** found that 1% of regular psychostimulant users had knowingly used PMA in the past six months. Rates of use in the general population are unknown, although are expected to be quite low.

However, only a small proportion of PMA use is likely to be intentional. Given that PMA is often sold as ecstasy, it is difficult to determine the number of people who may have unknowingly ingested PMA.

What are the risks?

PMA can be particularly dangerous when it is consumed unintentionally as 'ecstasy'.

Some of the documented harms associated with PMA use include:

- nausea & vomiting
- renal failure
- convulsions, coma & death
- hypertension
- muscle spasms
- increased blood temperature
- increased blood pressure
- increased body temperature
- increased pulse rate
- respiratory failure