

# 45 factsheet Drug Watch

## Mephedrone (4-methylmethcathinone/4-MMC)

**Street/common names:** Meph, Drone, MCAT, Meow meow, Magic, Bubble, Top Cat

Mephedrone is the most widely used of a range of synthetic cathinones that have similar stimulant and entactogenic ('loved up') effects to ecstasy. Its effects, particularly when injected, have been compared to cocaine. It is pharmacologically related to cathinone – an alkaloid found in the 'khat' plant (*Catha Edulis*) that has a long history of human use. Although mephedrone was first synthesised in 1929, its recreational use came to prominence in 2009 after being 'rediscovered' a few years earlier. Cheap, high purity mephedrone became readily available through internet sales and an unanticipated surge in its use coincided with a sustained decline in ecstasy purity. From 2010 it has been controlled under the Misuse of Drugs Act, since when it has become available through similar channels to other prohibited drugs such as MDMA, cocaine and the amphetamines. Within the British Crime Survey (2011/12), 'last year' use of mephedrone among 16 to 24 year olds was 3.3%, the same level as ecstasy. Far higher rates have been documented among samples of clubbers, who typically report much greater use of most legal and illicit drugs.

### Appearance

Usually a white/off-white powder with a distinctive smell that sometimes clings to people who use large quantities. It is mostly sold like other powders in 1 gram bags/wraps or less commonly in capsules or tablets. Analysis of seized and purchased mephedrone has shown that it is generally of high purity (>95%) although there are indications that purity has been reducing in some seizures.

### Cost

£10-20 per gram (street price). Much less if bought in quantity through on-line retailers/importation.

### Route of administration

Mephedrone is commonly snorted (which is often painful and damaging to nasal membranes) or swallowed (either 'dabbing' with a moistened finger

or wrapping in cigarette papers and 'bombing'). A growing number of areas in the UK report injecting.

### Dosage and onset and duration of effect

The typical amount of mephedrone consumed over an evening/night is about 0.5 to one gram, usually taken in doses every hour or two; however tolerance builds quickly (some users report using 4-10 g per night). When injecting, people sometimes use 0.5g or more at a time and often inject more frequently than is typical with heroin – often in excess of ten times daily.

### Oral

- Dose, 50-100mg (light) to 150-300mg (strong)
- Onset of effects, 15- 45 minutes
- Duration of effect, 3-4 hours

### Nasal:

- Dose, 15-25mg (light) to 75-125mg (strong)
- Onset of effects, 5-10 minutes
- Duration of effect, 1-2 hours

### Injection:

- Dose, 10-20mg (light) to 60-70mg (strong)
- Onset of effects, 2-3 seconds (rush) 5-10 minutes
- Duration of effect, 5 minutes (rush), 15-30 minutes

### Patterns of use

Like ecstasy, most mephedrone use is recreational and self-regulated without evidence of serious harms. However, users commonly find it more compulsive than ecstasy and a proportion progress to daily use with increased physical and mental health problems, tolerance and dependency. Harms and risk behaviours appear to escalate sharply for many people who begin injecting mephedrone. In parts of the country there are suggestions that injecting is being adopted by a new population of young injectors.

Mephedrone is often used with other stimulants, alcohol and cannabis, which can compound its risks.

### Drug effects (dose dependent)

Sought-after effects include:

- Stimulation, alertness, rushing
- Euphoria and hypersensitivity
- Empathy and warmth
- Well-being and confidence
- Increased libido and sexual disinhibition
- Talkativeness
- Time distortions
- Visual hallucinations
- Reduced appetite

Adverse effects include:

- Toxicity (sometimes fatal)
- Elevated heart rate (tachycardia) and palpitations
- Sweating, overheating, hot flushes, dry mouth
- Headaches
- Chest pain
- Nystagmus (eye jitters)
- Teeth grinding (bruxism) and jaw clenching
- Coldness or numbness in fingers or toes
- Blurred vision, dilated pupils
- Significant nasal irritation and tissue damage
- Agitation, aggression and paranoia
- Soft tissue and vascular damage (when injected)
- Strong, unpleasant odour

Residual effects include:

- Acute depression (sometimes associated with suicide)
- Insomnia and sleeping problems
- Fatigue and low mood
- Anxiety, agitation and paranoia
- Sore mouth or throat, sore nose and nose bleeds
- Soft tissue and vascular damage
- Nausea, vomiting, stomach pain
- Skin rashes and discolouration of skin
- Amnesia

Longer-term effects:

- Largely unknown as its widespread recreational use remains recent (<5 years).

### The Law

Since April 2001, mephedrone and all cathinone derivatives (except bupropion and those already controlled under the Misuse of Drugs Act, 1971, including cathinone itself) are Class B or Class A, if prepared for injection.