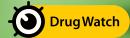
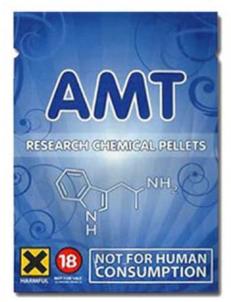
Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014







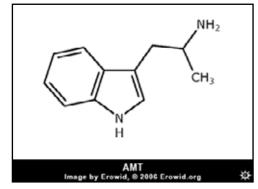
**Drug overview:** Alpha-methyltryptamine ( $\alpha$ MT/AMT) is a new psychoactive substance (legal high). It is a long acting, synthetic psychedelic and euphoriant<sup>1</sup>. 5-IT is the positional isomer of AMT<sup>2</sup> and it is difficult to distinguish between the two chemicals in routine GCMS analysis.

**Chemical name(s):** Alpha-methyltryptamine/ (IUPAC) 1-(1H-indol-3-yl)propan-2-amine.

**Classification:** Psychedelic<sup>3</sup>. It can also be described as a tryptamine<sup>1</sup> and euphoriant<sup>4</sup>.

**Background:** AMT was originally developed as an antidepressant in the 1960s

by the company UpJohn<sup>5</sup>. It was sold as a pharmaceutical drug under the name Indopan in the Soviet Union<sup>6</sup> in 5 and 10 milligram tablets<sup>7</sup>. In the 1990s AMT resurfaced as a drug of recreational use made available over the internet. It was first seen in the UK in February 2011.



**Street/brand names:** AMT has been sold on its own in powder, tablet or capsule form. It has been sold under different names (for example under the street name of Disco Biscuits), and has been found in at least two different types of unmarked pills<sup>23</sup>.

**Appearance:** AMT<sup>6, 8</sup> is an off white or yellowish/orange powder. The consistency can be either clumpy or fine. It is also found in tablet form. These are commonly referred to as pellets to avoid accusations that they are medicinal products. They are small blue pellets typically containing 30mg freebase powder<sup>6</sup>. AMT is also found in freebase form.

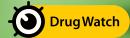
AMT or 5-IT has been discovered in tablets sold as Ecstasy including pale pink tablets with a cherry logo<sup>9</sup> and white tablets with a Mitsubishi logo<sup>10</sup>. Due to the complications of distinguishing between AMT and 5-IT in analysis it is not confirmed which is the active ingredient in these tablets

**Cost:** Pellets cost approximately £5 per 30mg pellet<sup>11</sup>. The powder form (purity unknown) costs approx £30 per gram and is available in amounts from 100mg at £7.50. The unit price decreases significantly with large quantities, e.g. 1000 pellets costing £1500, 100 grams costing approximately £875.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





**Route of administration:** AMT is often consumed orally, either by swallowing pellets, wrapping powder in a cigarette paper (bombing) or by taking a small bit of powder from tip of a moistened finger (dabbing). The powder form can be smoked; the onset is much faster by this method.

It is possible to inject this substance or administer rectally, although these methods appear to be rare for this substance. Due to the intensity and or dose/response curve for AMT, IV administration would likely be very dangerous.

#### Dosage:12

	Oral	Smoked	
Threshold	5-15mg	2mg	
Light	10-20mg	4-5mg	
Common	20-40mg	6-10mg	
Strong	40-60mg	10-20mg	
Heavy	60-100mg		

Pellets are reported to contain a dosage of 30mg<sup>11</sup>.

**Onset, duration and after effects:** <sup>12,13</sup> Oral doses have an onset of 30-120 minutes and peak at 3-5 hours. The duration is generally 10-14 hours although higher doses can last longer. After effects can be felt for a further 1-5 hours. As the effects can take over 2 hours to fully develop orally, it is not uncommon for users to re-dose in error thinking they have not taken enough initially. Users generally advise waiting at least 2.5 hours before re-dosing to avoid unwanted effects, or over-dosing.

When smoked, the onset is significantly quicker at 10-30 seconds with typical duration between 8-12 hours.

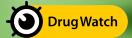
**Brain chemistry:** AMT is a reuptake inhibitor and releasing agent of serotonin, norepinephrine (noradrenalin), and dopamine <sup>16</sup>.

**Typical effects and side effects:** <sup>13,14,15</sup> These are some of the typical effects and side effects experienced by people who use AMT, not everyone will experience all effects listed and many can be dose dependent.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





Physical		Mental	
Increase in energy	Dilated pupils	Mood enhancement	Empathy
Increased heart rate	Blurred vision	Visual patterning	Music appreciation
Decreased appetite and difficulty eating	Vision obscuring visuals at high doses	Closed eye visuals (CEV)	Mild open eye visuals (OEV)
Restlessness	Nausea and vomiting	Anxiety	Paranoia
Yawning	Muscle aches	Agitation	Panic
Impaired coordination	Headache	Mental confusion	Repetitive thoughts
Jaw clenching	Insomnia	Racing mind	Disturbed dreams

**Comedown effects:** 14,15 Some users report experiencing a stimulant-like comedown, where they may feel an energy drain, low mood or experience flu-like symptoms and general tiredness/lethargy. This typically happens a day or two after use, which some users call the "Tuesday blues". Some anecdotal reports suggest AMT has less of a hangover than drugs such as MDMA although this is not an indication of long term safety.

**Patterns of use:** Patterns of use appear to be similar to drugs such as LSD. There seems to be little tendency to re-dose quickly unless a user believes they have not taken enough to experience full effects.

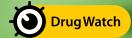
Some users report "topping up" with other substances such as cannabis or other psychedelics or stimulants which some believes enhance effects; however side effects are much more likely when people mix AMT with other substances.

**Long term effects/known harms:** AMT is a relatively unknown substance and indeed little is known about the long-term effects and potential harms. AMT has the potential to cause serotonin toxicity<sup>17</sup> especially at high doses or when mixed with other substances especially stimulants. AMT in conjunction with anti depressant/anxiety medications (SSRI/SNRI) has the potential to precipitate this condition.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





**Serotonin toxicity** can be fatal if not recognised and dealt with both quickly and effectively. Symptoms include *hyperthermia* (overheating), *hyperteflexia* (over responsive reflexes), *clonus* (involuntary muscular contractions and relaxations), *hypertension* (high blood pressure), *dysphoria* (mental distress) and *mydriasis* (dilated pupils). Due to muscle tension being triggered by the condition, there is a potential of developing *rhabdomyolysis* (muscle tissue breakdown) which can cause severe kidney damage and can be fatal. It is therefore dangerous to restrain individuals, as increased agitation will lead to increased muscle tension trying to break free from restraints. Treatment can include cooled IV fluids, benzodiazepines to control agitation, rapid cooling via ice packs, oral cyproheptadine (anti-histamine with anti-serotonergenic properties) and anti-psychotic medication in severe cases<sup>18</sup>. Perceptual effects of serotonin toxicity can last up to 24 hours; there is also the possibility of 'rebound effects' more than 12 hours after initial symptoms.

Two alerts regarding AMT were issued in 2012 after information was received regarding deaths in the United Kingdom and Norway. Two cases indicated that AMT was the only drug found in the system and the other included multiple substances<sup>19</sup>.

**Legal Status**: AMT is currently not controlled under the Misuse of Drugs Act<sup>20</sup>.

From 15th November 2011, new psychoactive substances that cause concern can be subject to a Temporary Class Drug Order<sup>21</sup>. Temporary Class Drug Orders can be made by the Home Secretary if a drug is not classified under the Misuse of Drugs Act 1971. Orders can be made if the Advisory Council for the Misuse of Drugs (ACMD) have been consulted and decided an order should be made or if they have advised the Home Secretary that an order should be made. A TCDO may apply to AMT in the near future. The positional isomer 5-IT is subject to a TCDO and will be controlled by the Misuse of Drugs Act shortly.

**Note:** As has been found with other new psychoactives / legal highs, products are not always as advertised. A batch of AMT analysed by TicTac Communications Ltd (see image) was found to contain no AMT; its contents consisted of MPA (methiopropamine), 5/6-APB and caffeine<sup>22</sup>.

The information in this briefing has been collated from a variety of sources including expert users

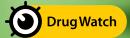


and information from users via relevant websites and drug forums. This information sheet is to be used as a rough guide only; there is little scientific or medical evidence available on the substance and much of the information has been obtained from service users' reports.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





**Harm reduction:** All drugs have the potential to cause harms and some of these can be very serious and rarely, life threatening.

If you choose to use AMT taking some simple steps can reduce some of the risks and help you stay safer.

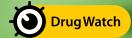
- Ensure the environment (setting) is safe and comfortable for the duration of the trip experience, this includes physical surroundings, music, being with trusted company and removing any potentially dangerous objects e.g. knives
- Try a small test amount and wait three hours before taking any more
- Avoid mixing with other substances including alcohol
- If friends are displaying symptoms of serotonin toxicity such as overheating and extreme mental distress, do not restrain people or hold them down as this can exacerbate the condition
- Control quantities taken in one session
- Try not to use alone and tell friends what you are taking
- Use in company of someone who is not using (a "sitter")
- Avoid consuming food immediately before using due to issues with nausea and vomiting
- Avoid if you have any history of mental health issues
- Carry condoms/dams and practice safer sex
- Seek help from medical support quickly if you nexperience any negative side effects
- AMT use can result in serotonin toxicity (see section on page 4 for details)
- It is imperative not to confuse with 5-me0-AMT or other tryptamines which are incredibly potent as would likely result in an overdose if taken at same dosages as AMT

**Overdose & Emergencies:** See DrugWatch Information Sheet for further information.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





As unconsciousness or overdose is possible try to make sure a friend is around who is not using the drug. If a user becomes unconscious call an ambulance, then place them in the recovery position to prevent choking (see images below).

**Please note:** if someone is displaying symptoms of serotonin toxicity (see page 4) it is not recommended to force them into the recovery position. Call an ambulance immediately.



Start by placing their arm as if they are waving.



Place the other arm across their chest and hold their hand against their cheek.



Lift up the knee that is furthest from you. Continue to hold their hand in place.



Turn them on their side by pulling the knee towards you and down.

Where to get help: We would advise anyone experiencing issues from AMT or other substances to seek medical support via their GP or the NHS. There are a wide range of local drug services throughout the UK, to find out what is available in your area please use the links below:

England: Find Support | Frank Scotland: Scotlish Drug Services

Wales: Dan 24/7

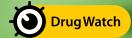
Northern Ireland: Public Health Agency

**DrugWatch** is currently an informal association of charities, organisations and individuals who share an interest in establishing a robust early warning system in the UK for all types of drugs. A list of current members, and a selection of drug briefings can be found <a href="here">here</a>.

Version: 1.5

Original version: 09/02/2014 Revision date: 18/03/2014





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Special thanks go to Alice Bowman who produced an initial draft, which this briefing was based on.

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