

DRUG MISUSE: NOVEL PSYCHOACTIVE SUBSTANCES

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INTRODUCTION

There isn't a term to cover them all, most of the drugs aren't new not that novel they aren't all used in clubs or at parties and a lot of them aren't legal anymore.

A lot of these drugs are synthetic and so are easy to manipulate.

They aren't similar and aren't easy to group together, but they do share characteristics with other drugs we know about.

These are drugs used by a wide range of people for different reasons so popularity can go up in one population while others move on to other drugs.

We're going to concentrate on drugs which are currently popular with people who are homeless – Mephedrone and "Spice".

HOW BAD ARE THEY?

Legal, Designer or Synthetic **MUST** mean the drugs are safe.

We don't know ... There isn't much experience of this kind of use and there isn't much research.

We do see drug related hospital admissions and deaths.

We do know a lot about the consequences of taking too many drugs, injecting and we know a lot about unsafe sex.



MEPHEDRONE



MEPHEDRONE (MKAT. MEOW) (1929)

This is probably the most frequently injected of all the new drugs. As well as new users some heroin injectors have switched to mephedrone, because it's cheap, relatively pure and easy to get hold of (until recently it was also legal).

Heroin isn't as popular any more and mostly it is of disappointing quality. People are aware of what heroin did to their parents and peers - it doesn't appeal so much to new users.

Not to be confused with METHADONE!



MEPHEDRONE – WHAT IS IT?

Mephadrone is a cathinone – this is a stimulant somewhere between a lot of coffee and a bit of speed.

Khat is also a cathinone – this is where mephedrone comes from

Mephedrone is different to Khat because it's not a straight forward cathinone, it has some additional bits too, which is why it has a different kind of feel – in the same way that ecstasy (MDMA) is mostly amfetamines, but not quite.



MEPHEDRONE EXPERIENCE

Euphoria, stimulation and an increased sense of empathy. The effects are quite short lasting, but can produce much longer residual effects.

Use also produces extremely strong cravings to use more and more – which encourages bingeing. Like crack does.

Chemical smelling sweat.

There is an overlap in effect with Mephedrone, ecstasy and Methamfetamines, which isn't a surprise because chemically, they all look a bit alike.



MEPHEDRONE – PRESENTATION

Agitation, seizures, shaking and tremors (Parkinsonian).

Headaches and Anorexia (reduced appetite).

Blue or cold fingers (peripheral vasoconstriction).

Users who snort, often report nosebleeds.

**Injectors report more damage, more track marks,
abscesses and collapsed veins.**



MEPHEDRONE - PHARMACOLOGY

Mephedrone is a neurotransmitter reuptake inhibitor - reduces the brain's ability to remove dopamine, serotonin and noradrenaline, causing an increase in concentration – this is similar to how crack works.

Having too much of a neurotransmitter is toxic.

E.g: Methamphetamine increases the release of, and inhibits the reuptake of Dopamine which burns out Dopamine receptors leading to a permanent down regulation – the brain is less receptive to dopamine.

MEPHEDRONE INJECTING

Typical stimulant pattern and effect but worse...

Mephedrone injectors usually report that their veins seem to go very quickly, they are more likely to get track marks and infections.

Unlike heroin you can overcook mephedrone and this causes it to thicken, making it more likely to clog veins.

Rotating site is still advisable, but injectors will damage them all far more quickly.



CANNABIS, SKUNK, SYNTHETIC CANNABINOIDS



CANNABIS

In the 60s, cannabis never did anyone any harm at all...

However, these days...

1. We know more about it (links to psychotic illness)
2. Modern Cannabis is a completely different beast

This is why....



CANNABIS CONTAINS TWO KEY COMPOUNDS*

Delta – 9 -Tetrahydrocannabinol (THC)

All the good effects and all the bad effects...

Cannabidiol (CBD)

Reduces the bad effects of THC and is generally thought to be protective.

*Actually around 400 compounds

CANNABIS PHARMACOLOGY

THC binds to Anandamide receptors (Sanskrit for bliss)

There are two THC receptors

CB1 (brain – Pain, cognition and reward)

CB2 (immune system and spleen)



SKUNK

Skunk usually refers to strains with a high concentration of THC.

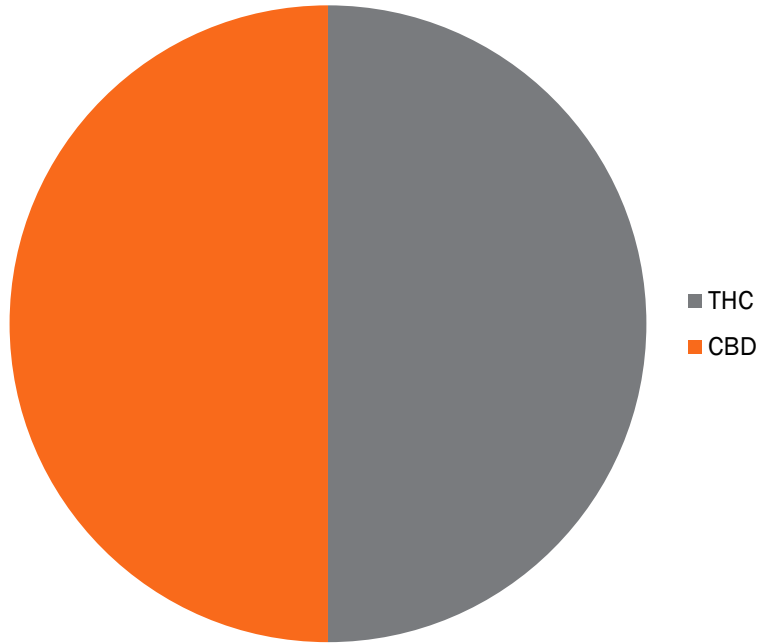
There is a limited amount of space for THC and CBA, as the THC increases the CBA is reduced, so smokers experience more of the bad effects

Growers/ Importers/ dealers maximise THC to improve value and sales

So modern cannabis is not the happy grass of the 60s



THC VS. CBD



SYNTHETIC “CANNABINOIDS”

These are NOT Cannabis

Legal (until 01 April 2016) – easy to buy

Chemicals which mimic THC (cannabinimimetic)

Often sprayed onto combustible leaf and sold and smoked like cannabis

Cheap - £5 a packet and average use is 1-2 packets daily

Spice has a much higher affinity for CB1/CB2 receptors

Full agonists (THC - partial agonist).

Synthetic so not well managed – disassociation and reuptake

ANECDOTAL EXPERIENCE

Really potent “head blown sideways”.

Increase in paranoia, aggression and agitation.

Users complain of depression and increase in psychotic symptoms.

Intense craving and compulsion to use.

Withdrawals.

There is no CBD protective effect in synthetic cannabinoids.

Enough of an overlap in effect to allow self detox from opiates.

More like a stimulant than cannabis.

Increased use in prisons – undetectable in drug screens.

Nobody seems to actually like it...



WHAT TO DO...

If you don't know, ask

Treat the person not the drug

Safer injecting

Be honest – if you don't know, say so. Giving people irrelevant advice tends to put them off.

More traditional drugs are still in use

Heroin, crack, ketamine, benzodiazepines, amfetamines.

Single drug use is rare, so take a full history (including alcohol, OTC and GP meds)



REFERENCES

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