



Synthetic cannabinoids are functionally similar to Δ^9 -tetrahydrocannabinol (THC), the active principle of cannabis. Like THC, they bind to the same cannabinoid receptors in the brain and other organs as the endogenous ligand anandamide. More correctly designated as cannabinoid receptor agonists, they were initially developed over the past 40 years as therapeutic agents, often for the treatment of pain. However, it proved difficult to separate the desired properties from unwanted psychoactive effects.

In late 2008, several cannabinoids were detected in herbal smoking mixtures or so-called incense/room odorisers. Typical of these were Spice Gold, Spice Silver and Yucatan Fire, but many other products later appeared. They do not contain tobacco or cannabis but when smoked, produce effects similar to those of cannabis. These products are typically sold via the Internet and in 'head shops'.

Chemistry

Although often referred to simply as synthetic cannabinoids, many of the substances are not structurally related to the so-called 'classical' cannabinoids, i.e. compounds, like THC, based on dibenzopyran. The cannabinoid receptor agonists form a diverse group, but most are lipid soluble and non-polar, and consist of 22 to 26 carbon atoms; they would therefore be expected to volatilize readily when smoked. A common structural feature is a side-chain, where optimal activity requires more than four and up to nine saturated carbon atoms. The first figure shows the structure of THC, while the others show examples of synthetic cannabinoid receptor agonists, all of which have been found in 'Spice' or other smoking mixtures.

The synthetic cannabinoids fall into the major structural groups below:

DRUGS LIST SYNTHETIC CANNABINOIDS
Naphthoylindoles (JWH-018, JWH-073 and JWH-398)
Naphthylmethyloindoles (JWH-175, JWH-184, JWH-185, JWH-194, JWH-194-197 and JWH-199)
Naphthoylpyrroles (JWH-363-373, JWH-307)
Naphthylmethyloindenes (JWH-176)
Phenylacetylindoles (benzoylindoles, JWH-250)
Cyclohexylphenols (CP 47,497 and homologues of CP 47,497)
Gamma-Carbolines (CUMYL-PEGACLONE, SGT-151)
Tetramethylcyclopropylindols (UR-144, XLR-11, Xlr-12)
Adamantoylindoles (Am-1248)
Indazole carboxamides (CUMYL-5F-P7AICA or SGT-263, MDMB-CHMCZCA, 5F-AKB48, etc.)
Quinolinyne esters (PB-22)
Aminoalkylindoles (JWH-200)
Others cannabinoids (HU-210, 5F-PCN, SGT-F, SGT-P)

All Synthetic Cannabinoids can be identified by the Narco-Sens®

Narco-Sens® will not only tell it is a Synthetic Cannabinoid but also will tell you to which group the Synthetic Cannabinoid belongs.