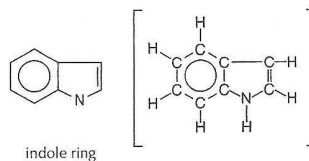


HL Mind altering drugs

THE INDOLE RING STRUCTURE

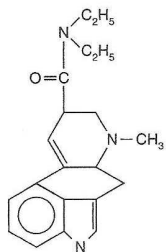
The hallucinogenic drugs LSD, psilocybin, and psilocin are all amines and contain the indole ring structure. Mescaline is also an amine and hallucinogenic and contains a structure similar to indole, except that the five-membered nitrogen ring is not closed.



LYSERGIC ACID DIETHYLAMIDE LSD

LSD does not occur naturally but is derived from ergot, a fungus that grows on wheat. Only 0.028 mg of LSD will produce a noticeable effect in most people. The short term effects, which last for about 12 hours, include restlessness, dizziness, the desire to laugh, and distortions in sound and visual perceptions. In some cases unpleasant hallucinations lead to feelings of despair and suicide may be attempted. LSD takers may believe they are able to fly and driving under the influence can be extremely dangerous.

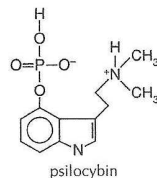
The long term risks include severe depression and the possibility of recurrences of LSD effects ('flashbacks') months or even years afterwards. There appears to be no lasting physical ill effects but LSD may cause psychological dependence. LSD has been used medically in psychotherapy, but is no longer used legitimately as it may lead to psychosis in susceptible patients. It is thought that LSD works by blocking the action of serotonin, one of the compounds responsible for transmitting impulses across synapses in the brain.



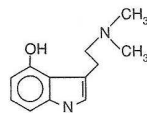
LSD

PSILOCYBIN

Psilocybin and the structurally related compound psilocin are found in the liberty cap mushroom *Psilocybe semilanceata* ('magic mushroom'). They are only mildly hallucinogenic causing slight alteration of perception and distortion of the senses together with feelings of exhilaration and insight. Although tolerance develops they are not addictive and it is not known if they can cause long term harm. The biggest dangers lie in the inability to recognize the mushrooms correctly, as similar-looking fungi are poisonous.



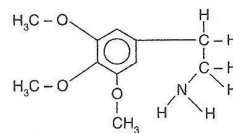
psilocybin



psilocin

MESCALINE

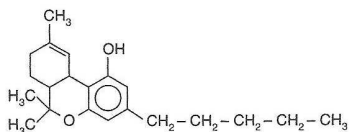
Mescaline is one of the oldest known hallucinogens. It comes from the peyote cactus found in South and Central America. Spanish explorers described the effects on the Mexican Indians in 1560 as 'terrible or ludicrous visions which lasted for two or three days'. Mescaline alters visual and auditory perceptions and appetite is reduced. It may cause unpleasant mental effects with people who are already anxious or depressed. Depending on how it is taken, other active substances in the plant may cause nausea and trembling. The effects of mescaline can be considerably enhanced when taken with alcohol. The long term effects are not clearly known but there is evidence that it could cause liver damage.



mescaline

MARIJUANA

Marijuana (also known as cannabis) is a mild hallucinogen made from the flowering tops, stems, leaves, and seeds of the hemp plant *Cannabis sativa*. Hashish, made from the resin of the plant is about five times stronger than marijuana. The active ingredient in marijuana is tetrahydrocannabinol (THC). The short term effects include a feeling of relaxation and enhanced auditory and visual perception. Loss of the sense of time, confusion, and emotional distress can also result. Hallucinations may occur in rare cases. It can have a synergistic effect and increase the risk of sedation with depressants. The long term effects include apathy and lethargy, and a lowering of fertility together with all the risks associated with tobacco smoking.



tetrahydrocannabinol (THC)

SHOULD MARIJUANA BE LEGALIZED?

Arguments for include:

- Medicinal use: research on the medical uses of cannabis is continuing but there is evidence that it is useful to prevent vomiting (anti-emetic), as a pain killer in cancer chemotherapy and AIDS, and for the treatment of glaucoma, epilepsy, Parkinson's disease, and Huntington's chorea.
- Lower crime rate – police freed to concentrate on other criminal activities.
- Freedom of the individual.

Arguments against include:

- Cost to society due to increased risk of heart disease and cancer through smoking.
- Claims by some that cannabis can lead on to harder drugs.
- Increased risk of dangerous driving while under the influence.