Cocaine

Cocaine has become widely available in Europe in the past few years, though in contrast to the USA, the free base form ("Crack") is rare. The leaves of the South American coca plant are processed into cocaine. Based on surveys, about 2% of the population consumes cocaine regularly.

Two mechanisms of action are caused by cocaine at a cellular level that are experienced in different ways. A local anesthetic (pain killing) effect results from the blockade of Na+ canals. The psychomotor effects of cocaine result from the inhibition of the reuptake of monoamines in the brain. This inhibition leaves more dopamine, noradrenalin and serotonin between the neurons and results in a suppression of fatigue, insomnia, loss of appetite, increased libido, hyper activity, and a feeling of increased performance. With higher doses symptoms such as euphoria, hallucinations, anxiety, irritation, and seizures can result. Increased blood pressure and tachycardia are also common. In the past years, there has been an increase in the number of heart attacks in young people. Studies have shown that this raise in rate is not simply a result of the increased rate of other conditions such as obesity, metabolic syndrome, smoking, and stress that increase the risk for cardiovascular problems, but is also a result of cocaine abuse among young people. Cocaine abuse during pregnancy results in many risks for the fetus and woman. The rate of deformities in the nervous system and extremities, placental pathologies (e.g. Placenta praevia and Abruptio Placentae), and premature birth are increased. After many years of abuse, psychotic and paranoid personality changes can be observed with acoustic and visual hallucinations, anxiety attacks, psychoses, and/or depression. The cell toxic action of cocaine is also evident in the periphery, most often in necrosis of the nasal septum after nasal consume.

Cocaine is usually consumed nasally, but the psychoactive actions can be much more potent when inhaled in the free base ("Crack") form or after intravenous injection of cocaine-hydrochloride. Since the high produced by cocaine last for only 30-60 minutes, it is commonly consumed in "binges" where dose after dose is consumed in short intervals.

Withdrawal symptoms that result after regular cocaine abuse are primary mental. They include decreased drive, fatigue, depression (ranging from depressive mood to clinical depression), increased hunger, decreased blood pressure, cocaine craving and a massive need for sleep.

The therapy of choice for cocaine addiction is behavioral therapy, which yields positive long-term results. There is unfortunately no treatment option that specifically targets cocaine addiction or the withdrawal symptoms. Psychotic symptoms can be treated with benzodiazepines. Antipsychotic medications are usually poorly tolerated after cocaine abuse and the myoclonic threshold is lowered. This is also typical after long-term abuse of amphetamines and methamphetamines.

In the early 1980s, cocaine was seen as a drug for the upper class and was very expensive. The increased availability of cocaine has lowered the prices, made possible to a large extent through the opening of Eastern European markets of to the drug mafia. This has made cocaine more accessible and its abuse is now common in almost all social classes and professions. Predictions indicate that this trend will continue in the years to come.