

Cocaine Information Fact Sheet

Scientific Name:

Benzoyl-Methyl-Ecgonine.

Other Common Names:

Coke, Big C, Rock, Crack Base, Snow, C, Nose Candy, White Lady, Toot, Charlie.

Description:

Cocaine is a psychoactive, stimulant drug that is highly addictive. It is an alkaloid which is chemically a salt (cocaine hydrochloride).

Numerous research studies investigating how cocaine impacts the brain and leads to addiction has produced highly detailed explanations. The ventral tegmental (VTA) nerve fibres in the midbrain extend to the part of the brain that manages reward or the nucleus accumbens. Normally, the neurotransmitter dopamine is released during “rewards” like eating or having sex and travels across synapses (gaps between nerve cells) to the nucleus accumbens. The dopamine binds to dopamine receptors, another type of neuron, sends a signal which increases neural activity, and is subsequently removed. Cocaine works in the VTA region of the brain, interfering in the binding-release process. It effectively blocks the removal of the dopamine, thus amplifying signals or neural activity. This increases drug tolerance because it takes more and more of the drug to achieve the same level of “reward” or feelings of pleasure.

Cocaine users describe its effects as feelings of euphoria, reduced fatigue, increased energy, and greater mental alertness. They often become talkative. The drug lessens feelings of hunger and reduces the need for sleep. Though often pleasurable in the early stages of use, its addictive nature means people develop a tolerance, and the feelings of pleasure decline. This may lead to increases in the dose amount whilst trying to experience the same level of pleasure. However, some people become more sensitive to the effects of cocaine and do not have to increase the dosage.



Some cocaine users will use the drug on a binge. A binge is when the drug is taken repeatedly and each dose is higher in pursuit of the “high.”

Source:

Cocaine (C₁₇H₂₁NO₄) is extracted from the leaf of the Erythroxylon, a coca plant. The plant is native to South America.

Forms:

There are two forms of cocaine: powder and crystalline.

The powder form is ingested in three ways. The first way is through the nose (snorted), and the drug is absorbed through the nasal tissue. The second way cocaine powder is used is by dissolving it in water and injecting it with a needle directly into the bloodstream. Much less frequently, cocaine is ingested by dissolving it in water and taking it by mouth.

“Crack” cocaine is a cocaine product made from powder cocaine in a way that produces a crystal rock form. The powder is usually dissolved in water and baking soda (sodium bicarbonate), boiled, and cooled. The purpose is to free the base cocaine from the hydrochloride (salt). The solids that separate during the process are then cut up into “rocks.” The rocks are smoked using a small glass pipe which has the nickname “straight shooter.” Heat is applied to the rock from below which produces a vapour that is inhaled.

Freebase cocaine is technically made by using ammonia (diethyl ether), and is a more dangerous method of separating the cocaine because of chemical volatility. The diethyl ether dissolves and separates the cocaine which is then siphoned off. Freebasing cocaine refers to heating the cocaine and inhaling it without turning it into rock crystals. Freebase cocaine and rock cocaine are terms that tend to get used interchangeably, when in fact they are different forms of cocaine.

Health Effects:

- **Psychological Effects:**

Immediately after use the cocaine users feels euphoric and has high energy levels. However, these are short-lived reactions enduring no more than 30 minutes. The psychological effects vary from person to person, and the effects also include paranoia, anxiety, hallucinations, irritability, restlessness, and during withdrawal, panic attacks and a craving for more. In the long-term, full blown psychosis can occur.

- **Physical Effects:**

- **Acute** – Cocaine is a dangerous drug that constricts blood vessels. It increases body temperature, heart rate and blood pressure. People using cocaine have suffered heart attacks, strokes, and seizures leading to death. The pupils are normally dilated and headaches are common. The effects are influenced by the way cocaine is used. Users who snort may experience nosebleeds and chronically runny and inflamed noses. Those who snort or inhale are likely to experience hoarseness, difficulty swallowing, and inflamed respiratory systems. If cocaine is ingested, it produces

nausea and can lead to bowel gangrene because of constricted blood flow.

- **Long-Term** – Physical addiction is often the long-term consequence of using cocaine. It is important to understand that some people are addicted in the short-term too because of how the drug works on the brain. A frequent side effect is extreme weight loss and malnourishment since the drug decreases appetite. Users who inject cocaine repeatedly will develop “tracks” wherever the injections are applied.

Detection Period:

Cocaine is detectable in saliva test for 24-hours. It is detectable in urine for 2-4 days.

Legal Status:

Cocaine is a Schedule 8 drug in Australia. Schedule 8 drugs are called Controlled Drugs and are drugs of dependence. They can be legally prescribed or used by physicians and veterinarians. Most medicines containing cocaine are used in the medical centres, and people are not handed prescriptions for “cocaine pills.” Possession of cocaine is illegal without a prescription.

Western Australia follows the federal laws for Schedule 8 drugs. Without a prescription, the drug is considered illicit. It is illegal to possess, use, manufacture, cultivate, or supply an illicit drug. Possession offences are subject to a \$2,000 fine and/or 2 years in prison. Supply offences are subject to a maximum \$100,000 fine and/or 25 years in prison.

Other Information:

Injecting or smoking cocaine produces a quicker “high” than snorting or inhaling the drug. The drug is delivered more rapidly to the bloodstream and the brain. However, the euphoric high from inhaling cocaine usually lasts longer than the high from smoking cocaine. Smoking cocaine delivers an intense 5-10 minute high, whilst inhaling cocaine can produce effects that last 15-30 minutes. The short time timeframe often leads to repeated use and eventual bingeing.