

# TRAINING BULLETIN

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Los Angeles Police Department

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## "COCAINE"

Cocaine is a powerfully addictive central nervous system stimulant and the only known naturally occurring topical anesthetic. It is used medically as a local anesthetic to numb the nasal passages when inserting breathing tubes or to numb the eye, nose, or throat during surgery. Cocaine also constricts blood vessels, which reduces bleeding in minor surgery.

Cocaine derives from the leaves of the coca plant (*Erythroxylon coca*). It is grown at elevations from 1,500 to 6,000 feet in the Andean highlands of South America and can be harvested three or more times a year. Peru and Bolivia grow most of the illicit coca, but Colombia dominates cocaine production and smuggling.

## BACKGROUND

Native cultures in South America have used coca leaves for thousands of years for religious, social, and medicinal purposes - to fight off fatigue, lessen hunger, and increase endurance. The Incas chewed the leaf or chopped it up and spooned it under the tongue so the active ingredients could be absorbed by the tiny blood vessels in the gums. To this day, it is estimated that 90 percent of the Indians living in coca growing regions chew the leaf.

Albert Nieman isolated the principal alkaloid in the coca plant in 1859 and named it cocaine. This extraction from the coca leaf produced pure cocaine hydrochloride (HCL), which caused much more powerful effects than chewing the leaf. Since it readily dissolved in water, it could be injected directly in the veins, dissolved in soft drinks (like Coca Cola) or wine, or used in patent medicines.

In 1884, Sigmund Freud, advocated the use of cocaine to treat depression and to alleviate chronic fatigue. He used it to treat his own depression and described cocaine as inducing

exhilaration and lasting euphoria. Some years later, after recognizing its side effects - tolerance, dependence, a state of psychosis, and withdrawal depression - Freud called cocaine the "third scourge" of humanity, after alcohol and heroin. In 1914 the Harrison Narcotic Act banned the use of cocaine in patent medicines and beverages. The use of cocaine rose during the 1920's decreased during the 1930's (when amphetamines became available, cost less, and produced similar but longer-lasting effects), then reemerged in the 1960's.

### **HEALTH HAZARDS**

Cocaine interferes with the reabsorption process of dopamine, a chemical messenger associated with pleasure and movement. Dopamine is released as part of the brain's reward system and is involved in the "high" that characterizes cocaine consumption.

The duration of cocaine's immediate euphoric effects, which include hyper stimulation, reduced fatigue, and mental clarity, depends on the route of administration. The faster the absorption, the more intense the high. On the other hand, the faster the absorption, the shorter the duration of action. The high from snorting may last 15 to 30 minutes, while the high from smoking may last 5 to 10 minutes. Increased use can reduce the period of stimulation.

Some users report feelings of restlessness, irritability, and anxiety. An appreciable tolerance to the high may be developed, and many addicts report that they seek, but fail to achieve, as much pleasure as they did from their first exposure. Scientific evidence suggests that the powerful reinforcing property of cocaine is responsible for an individual's continued use, despite harmful physical and social consequences. In rare instances, sudden death can occur on the first use of cocaine or unexpectedly thereafter. However, there is no way to determine who is prone to sudden death.

High doses of cocaine and/or prolonged use can trigger paranoia. Smoking cocaine base ("rock" or "crack") can produce a particularly aggressive paranoid behavior in users. When addicted individuals stop using cocaine, they often become depressed. This also may lead to further cocaine use to alleviate depression. Prolonged cocaine snorting can result in ulceration of the mucous membrane of the nose and can damage the nasal septum enough to cause it to collapse. Cocaine-related

deaths are often a result of cardiac arrest or seizures followed by respiratory arrest.

The polydrug use of cocaine and alcohol compounds the effects of each individual drug. The human liver combines cocaine and alcohol and manufactures a third substance, cocaethylene, that intensifies cocaine's euphoric effects, while possibly increasing the risk of sudden death.

### **ILLICIT COCAINE**

Cocaine produced for illicit use is processed primarily in South America. Some processing labs have also been discovered in Central America. Once the manufacturing process is complete and the cocaine is placed in the kilo brick form, it is smuggled into the countries of abuse. Smuggling and distribution of cocaine is not specific only to Colombians; other Central American nationals, most notably Mexicans, are also heavily involved.

### **Cocaine Hydrochloride (HCL)**

When it is imported into the United States cocaine is in the water soluble form, cocaine HCL. It is generally 90 percent pure and appears as a white to yellowish crystalline powder, which can be either injected or inhaled. Street level quantities are normally packaged in paper bindles or small amber vials. Typically dealers will dilute (cut) the cocaine HCL to increase their profits. Common cuts include Lactose, Inositol, Mannitol, or Lidocaine.

### **Cocaine Freebase**

Cocaine HCL must be processed before it can be smoked, since cocaine HCL vaporizes at a very high temperature. It will burn rather than vaporize, causing most of the drug to be wasted in the process. In order to be suitable for smoking, cocaine HCL must be converted to a base. This process, called "basing," is done by placing cocaine HCL in a solution of baking soda and water. Ether is also added. Heating the mixture evaporates the ether, resulting in the cocaine freebase paste, which is white to yellowish in color. The cocaine paste is then smoked.

This method of conversion also removes most diluents, leaving a purity of 90+ percent. If a user purchased a gram of cocaine

HCL that had been cut once, after "basing" the original gram would yield only half a gram. Most users of cocaine freebase became disenchanted with "basing" because it appeared to evaporate much of their cocaine. Dealers did not sell cocaine base, as it was not as profitable as cocaine HCL, which they could dilute. The use of ether was also dangerous, as the comedian Richard Pryor demonstrated by setting himself on fire while attempting to freebase cocaine. With the development of crack or rock cocaine, the popularity of using this volatile method of processing cocaine declined.

### **Rock or Crack Cocaine**

A more popular form of cocaine base is rock or crack cocaine. There are several different methods of producing this form of cocaine. One method is to heat a solution of cocaine HCL, soda, and water using an open flame, a frying pan, or a microwave oven. Rotating the container with the mixture while applying heat produces the "rock," which is yellowish or tan in color.

The diluents are again lost in the conversion process. The baking soda makes up for the weight loss. Starting the process with an ounce of cocaine HCL will result in about one ounce of rock cocaine with a purity of approximately 60 percent. The rock can then be smoked.

Rock or crack is commonly encountered in small chunks, resembling pieces of macadamia nuts. It can also be found "wafer style," in fairly uniform flat squares or rectangles, resembling pasta. The term kibbles and bits refers to leftover chips or scrapings from either form.

Street level quantities of rock cocaine are usually packaged in aluminum foil, small glass vials, cellophane, or loose. Many times street sellers will hold the rocks in their mouth and sell "mouth to hand."

### **METHODS OF INGESTION and PARAPHERNALIA**

Cocaine HCL is generally snorted or dissolved in water and injected. It can be snorted using a straw or any small round object which fits into the nose. Spoons were popular at one time but are rarely used anymore as hair in the nose prevented some of the cocaine powder from being inhaled.

Cocaine HCL can also be taken orally, although this is the least effective way of taking the drug into the body and produces a very weak "high."

Injecting cocaine HCL frequently leaves very distinguishable patterns of fresh injection marks. Unlike heroin, which is a longer acting drug (four to eight hours), cocaine is a short acting drug which, when injected, produces an intense "high" followed (15 to 30 minutes) by an intense "low." To avoid this "low," the user will shoot up again within the hour, and repeat the cycle of highs and lows until the cocaine is gone. This will cause many "fresh" (less than eight hours old) needle marks.

Cocaine has a high alkaline content, irritating the skin and the surrounding tissue. Because cocaine constricts the blood vessels, it restricts the regular flow of blood to the injection site, leaving red, swollen, and sometimes large open wounds that become infected and abscessed. Cocaine HCL is frequently injected with heroin (speedball. The use of the cocaine slightly prolongs the duration of the opiate effects on the body. Many opiate users will also smoke rock cocaine. Rock or crack can be smoked with a variety of small pipes. These can be glass bowl types, straight pieces of glass, or broken car antennas. Any coke pipe will have mesh to hold the melting rock as it is vaporized. Rock cocaine can also be placed inside a marijuana cigarette and smoked. This is sometimes referred to as a "primo".

Individuals who regularly smoke rock or crack will typically have bum marks on a thumb and forefinger where they hold the pipe, callous on the thumb used to "Rick the Bic" lighter, black gums, and a burnt lip.

## **EFFECTS**

The intensity of the effects of cocaine depends on the quantity of the drug taken, the quality of the drug taken, the tolerance of the user, and the rate of delivery of the drug to the brain. Snorting cocaine HCL reaches the brain in three to five minutes. Injecting cocaine produces a rush in 15 to 30 seconds, and smoking cocaine base (free base or rock) produces an almost immediate intense rush of euphoria. These intense effects can be followed by a dysphoric crash. To avoid the fatigue and depression of "coming down," frequent repeated doses are taken.

Excessive doses of cocaine may lead to seizures and death from respiratory failure, stroke, cerebral hemorrhage or heart failure.

**Possible effects of cocaine include the following:**

Dilated pupils	Slow reaction to light
Elevated blood pressure, pulse, temperature	Irritability
Body tremors	Increased alertness
Anxiousness	Restlessness
Rapid, rambling speech	Excitation
Bruxism (grinding teeth)	Hyperflexia (exaggerated reflexes)
Red and irritated nasal area	Overconfidence
Evidence of malnutrition (chronic user)	Inability to sit still
Misperception of time and distance	Dry mouth

In 1973, the California legislature adopted the Uniform Controlled Substance Act (UCSA) to replace the Narcotic Act under Division Ten of the California Health and Safety Code. The UCSA places narcotics and dangerous drugs into five controlled substances schedules and closely follows the Federal Controlled Substances Acts adopted in 1970. These drugs are classified as to their accepted medical use in the United States, potential for abuse, and safety or dependence liability. Cocaine HCL falls under Schedule II; cocaine base (rock or crack) falls under Schedule I. The pertinent Health and Safety (H&S) codes are:

	<u>Cocaine HCL</u>	<u>Cocaine Base</u>
Possession	11350 H&S	11350 H&S
Possession for Sale	11351 H&S	11351.5 H&S
Sales	11352 H&S	11352 H&S
Influence	11550 H&S	11550 H&S
Sales in Lieu	11355 H&S	11355 H&S
Manufacturing	11379.6 H&S	11379.6 H&S

Individuals suspected of driving under the influence of cocaine will be placed under arrest for DUI (23152 of the Vehicle Code) with an additional filing for 11550 H&S requested. A Drug Recognition Expert (DRE) shall evaluate the suspect, if available.

FIELD TRAINING SERVICES UNIT  
CONTINUING EDUCATION DIVISION