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"PACO" COCAINE
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"PACO" COCAINE

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ORIGINS AND HISTORY OF COCAINE

-Erythroxylum Coca-

-From Ancient Tribes to Edwing Merck-



The properties of the coca plant have been known for 7,000 years. For the Aymara and the Quechua it was a miraculous plant, and they used it in their ritual ceremonies.

With the arrival of the Inca it began to be used in ceremonies and it denoted outstanding members or loyal subjects. The state controlled its production and use.



ORIGINS AND HISTORY OF COCAINE

-Erythroxylum Coca-

-From Ancient Tribes to Edwing Merck-

In Germany, Edwing Merck, at his Angel Pharmacy in the city of Damstadt, was the first to isolate the drug, giving us the term MERC K.



Initially isolated in 1855, cocaine was the first local anesthetic known, and was introduced into medical practice by the Austrian ophthalmologist Carl Koller.



Vin Mariani by Angelo Francois Mariani, born December 17, 1838, died April 1, 1914

PHYSICAL & CHEMICAL PROPERTIES

Cocaine Cl is soluble in water, partially soluble in alcohol, slightly soluble in chloroform, and insoluble in ether. It has a high melting point of between 200 and 205°C. This is in contrast to base cocaine, which is insoluble in water and soluble in the other substances indicated, with a melting point of 98° C. (ST/NAR/7)

Alkaloids found in coca leaf

NATURAL ALKALOID	PROPERTIES
Cocaine	Anesthetic and analgesic
Ecgonine	Metabolizes fats and carbohydrates
Pectin	Absorbent and antidiarrhetic
Papain	Protease that accelerates digestion
Hygrine	Stimulates the salivary glands when environmental oxygen is low
Globulin	Improves blood circulation, prevents altitude sickness
Pyridine	Accelerates brain development and circulation
Quinoline	Prevents tooth decay
Coniine	Anesthetic
Cocamine	Analgesic
Inulin	Diuretic
Benzoin	Accelerates the development of muscle cells and prevents putrefaction of foodstuffs
Reserpine	Regulates blood pressure

EXTRACTION OF COCAINE AND ITS DERIVATIVES

1

The coca leaves are mixed in a barrel with water and lime. They are pressed and left for between 1 and 3 days to macerate.

2

A nonpolar organic solvent (kerosene, diesel, etc.) is added to extract the coca. The leaves are then discarded, which produce BASUCO, and the green liquid remaining, known as "raw paste," is separated.



EXTRACTION OF COCAINE AND ITS DERIVATIVES

- 3 After decanting the solvent, which is generally acidified with sulfuric acid, the cocaine precipitates as a sulfate.

Contaminants are then eliminated by oxidation with potassium permanganate and transformation of ecgonine into cocaine through methylation and benzoylation.



Pasta base

140 g

- 4 After filtering and drying through alkalization and extraction with an organic solvent (ether, chloroform etc.), BASE PASTE is obtained.

EXTRACTION OF COCAINE AND ITS DERIVATIVES

- 5 The paste is diluted in acetone; it is filtered and hydrochloric acid is added; and it is filtered again and dried in the sun or with burners. The resulting powder is finally:

-----COCAINE HYDROCHLORIDE-----



Clorhidrato de cocaína

100 g

The residue from the filtering before cocaine hydrochloride is obtained is used to produce PACO.

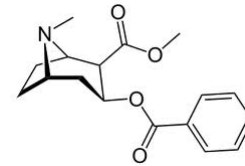
EXTRACTION OF COCAINE AND ITS DERIVATIVES

The processes do not yield transformations of 100%. For that reason, the chemical equations include double arrows of different sizes, indicating the prevailing direction of the transformation.

BASE PASTE

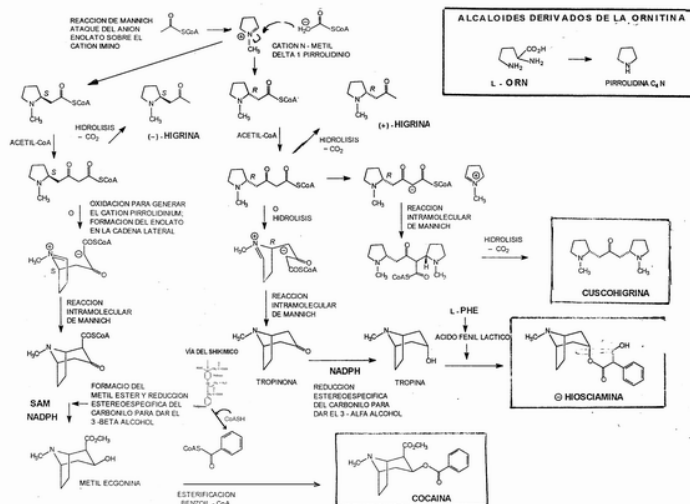
May contain sulfate, cocaine acetate, or intermediate compounds

Acetone or Ether +
Hydrochloric acid +
Alcohol



COCAINE

BIOSYNTHESIS OF COCAINE IN THE PLANT



CONSUMPTION AND TRAFFICKING

COCAINE HYDROCHLORIDE

WHO reports indicate that it can be inhaled, injected, or applied to mucous membranes.
CANNOT BE SMOKED. DOES NOT PASS THE BLOOD-BRAIN BARRIER.



CONSUMPTION AND TRAFFICKING

BASE PASTE OR BASE COCAINE

Base Cocaine and Base Paste: liposoluble, 98°C melting point, passes BLOOD-BRAIN BARRIER,
and CAN BE SMOKED.



Smoked in a metal tube with wire wool or a sponge, on which is placed the base cocaine derived from the salification of the base paste to transform it into hydrochloride.
Sulfates or solvents may be found throughout the process.

Cocaine vs. Paco

QUE ES EL PACO

Es parte del residuo químico que queda en el proceso de producción de la cocaína.



COMO SE CONSUME

Se fuma solo o mezclado con tabaco o marihuana, o con ambos.




QUE PROVOCA AL FUMARLO

Sólo demora de 8 a 40 segundos en llegar al sistema nervioso central, donde produce un inmediato efecto de euforia que dura de 2 a 5 minutos.

El efecto se divide en cuatro etapas:

- 1 Euforia** Disminuyen las inhibiciones, sensación de placer y seguridad.
- 2 Disforia** Aparece una sensación de angustia, depresión e inseguridad.
- 3 Deseo de consumo** Necesidad de seguir fumando para salir del estado anterior.
- 4 Psicosis y alucinaciones** Se da con el consumo regular. También paranoia y agresividad.

DAÑOS QUE PRODUCE LA ADICCIÓN



- Cerebro**
Confusión, excitación psicomotriz, delirio, paranoia. Convulsiones y hasta derrame cerebral.
- Vías respiratorias altas**
Lesiones en boca y garganta.
- Pulmones**
Irritación de las mucosas, infecciones y neumonías. Enfisema pulmonar.
- Corazón**
Hipertensión, arritmia e infarto.
- Náuseas, vómitos, diarrea, pérdida de peso.**
- Hígado**
Hepatitis.

La cocaína y su efecto devastador

REFERENCIAS, según el periodo de consumo

● A corto plazo ● A largo plazo

SISTEMA NERVIOSO

- Problemas neurológicos, insomnio
- Accidente cerebrovascular, embolias
- Dependencia, adicción
- Psicosis, paranoia, depresión, ansiedad
- Náusea y dolor de cabeza

NARIZ

- Pérdida del oído
- Irritación y sangrado nasal

SISTEMA CARDIOVASCULAR

- Taquicardia
- Hipertensión
- Arritmia
- Constricción de los vasos sanguíneos
- Paro cardíaco
- Ruptura o diseción de la aorta
- Aumento de tamaño y espesor del corazón (ventrículo izquierdo)

APARATO RESPIRATORIO

- Respiración irregular
- Aumento de la frecuencia respiratoria
- Paro respiratorio
- Fluido en los pulmones
- Asma aguda

HIGADO

- Hepatotoxicidad

SEXO

- Disfunción sexual

PIEL

- Hormigueo
- Alucinaciones táctiles como, por ejemplo, "sensación de que se mueven gusanos bajo la piel" (son conocidas comúnmente como "bichos de la cocaína")

COMO ACTUA EN EL CEREBRO

TRANSMISIÓN NORMAL DEL IMPULSO NERVIOSO

NEURONA TRANSMISORA

La señal eléctrica pasa de una neurona a otra a través de la sinapsis con una reacción química.

DETALLE

1 El impulso eléctrico libera dopamina.

2 La dopamina genera un nuevo impulso eléctrico.

3 La dopamina está relacionada con la sensación de placer.

4 La dopamina es recuperada.

CUANDO SE TOMA COCAÍNA

1 La droga impide la recuperación de dopamina.

2 La acumulación de dopamina produce un placer intenso.

El consumo prolongado de cocaína hace que ésta pase a ser necesaria para que el cerebro funcione y para no sentir malestar.

Fuente: NATIONAL INSTITUTE OF DRUG ABUSE, EE.UU. - SEBONAR

Police Reports

"...the federal police seized between 550 and 600 doses of paco in two raids on two homes in Empalme Graneros, where they also found 500 doses of cocaine and 3 kilograms of the same drug in compacted form..." *La Capital*, 28/04/2010

"... As of March 2009, the 12th National Criminal and Correctional Court, Judge Sergio Torres presiding, is processing and has processed more than 90 cases involving illicit narcotic trafficking in the settlements known as Ciudad Oculta (or Villa 15). The seizure of approximately 36,000 grams of a substance made from cocaine alkaloid, equal to some 300,000 threshold consumable doses of cocaine hydrochloride (using a threshold dose of 0.10 grams), or the equivalent of more than 5,400,000 threshold doses of paco..." Thursday, February 17, 2011, CIF, news service of the judicial branch.

"...Some 6,000 doses of paco and around 3 kg of high-purity cocaine were seized in a raid in the city of Berisso, province of Buenos Aires, in which two women and a man were arrested under the authority of the federal court of La Plata, which ordered proceedings for 'breaches of the drugs law, No. 23,737, in the form of trafficking, production, distribution, and sale'..." Federal News Agency, November 26, 2010.

Is PACO found in Argentina?

Yes, PACO can be found...