



Ethnobotanical Leaflets



Opium (*Papaver somniferum*)

By Leslie Winemiller

The opium poppy has been used as a medicinal plant for centuries all over the world. The opium poppy plant belongs to the Papaveraceae family. The scientific name of the opium poppy is *Papaver somniferum* L., and it is native to Turkey. The plant has lobed leaves, milky sap and four to six petaled flowers with several stamens surrounding the ovary. The two sepals drop off when the petals unfold. The ovary then develops into a short, many seeded capsule that opens in dry weather. The small seeds of the opium poppy plant are dispersed by wind. The plant has five inch purple or white flowers on plants three to sixteen feet tall. It is an annual plant which needs to be planted only once for several years of harvest. There are many varieties of poppy plants grown other than the opium poppy, mostly for seasonings, oil, birdseed and attractive flowers.

The poppy plants produce natural opiates. An opiate is defined as the drug derived from the opium poppy and are found in the milky substance extracted from the unripe seeds. The opiates are the best known narcotics. There are twenty different alkaloids derived from the opiates. Codeine and Morphine are the ones that are still in widespread use today. Codeine is a milder form of morphine and both are used today in the medical field for relieving pain.

To obtain opium from *Papaver somniferum* is a very easy thing to do. It is a very common plant and is easy to purchase. The seeds can be planted and little care is needed to grow healthy plants. When the flowers turn to seed, the seed pods are slightly incised and a white milky liquid is dispersed. The liquid is allowed to seep out and dry for a few hours. The white liquid will turn to black when it is exposed to air and is scraped out of the pod. This is the raw product used to make opiates. After the opium is extracted it is purified to opium alkaloids. There are manufactured alkaloid derivatives that include dihydromorphine, dihydrocodeine and heroin. The alkaloids can be of two different types. One type acts on the nervous system and are addictive to the human body. The other form is not addicting and instead relax muscle groups.

Papaver Somniferum has been used since Greek times to relieve suffering and euphoria. Records indicate that the opium poppy has been used since the time of Mesopotamia (5000 to 4000 BC). The

records refer to the poppy and its use as opiates as medical tablets. "Homer's writings indicate Greek usage of the substance at least by 900BC: Hippocrates made extensive use of medicinal herbs including opium" ([see Britannica Online](#)).

It is believed that the Romans probably learned of opium in the Mediterranean. Opium spread to places all over the world. In China opium was reported as a problem during the seventeenth century. Between World War I and II the cultivation of opium grew in Central America in the mountains. Now the major producers and exporters of opium are Turkey and India ([Britannica Online](#)).

Opium was definitely used in more recent times as well. Before the nineteenth century there were few painkillers available. There were few alternatives to using opiates to end suffering for dying people. Long ago opium was not considered harmful and was available to everyone. Doctors advised taking opiates to relieve a number of symptoms including diarrhea, cough and pain. In North India it is used as a traditional offering to guests in the form of opium water.

Opium has the appearance of dark brown chunks called cakes or bricks or as a powder form. People take opium in a number of different ways. At first, opium was taken orally. Smoking opium did not begin until after the discovery of America. Injection of opiates became popular in the mid nineteenth century. The effects were found to be much greater than if it was taken orally. Other opiate analgesics appear in a variety of forms including capsules, tablets, syrups, elixirs, solutions, and suppositories. It can also be snorted ([see Facts About Opiates](#)).

Opium briefly stimulates the higher centers of the brain but then depress activity of the central nervous system. It works in multiple regions of the brain to stimulate pleasure and physical "highs". The feeling that is acquired after taking the narcotic is called a "rush" and is felt immediately after taking it. At first the person feels restless and maybe nausea. The higher dose of opium taken the more intense the "rush" can be. The effects of the drug disappear within a few hours to a few days. When a large dose is taken breathing is slowed. A drowsy state is preceded and a person can be almost impossible to arouse. The skin gets cold, moist, and bluish ([see Opiates: High Risk Addiction](#)). Overdose is a great risk when taking opium. Long term effects of repeated opium use are severe. A person can develop an infection of the heart lining and valves. If unsterile technique is used when injecting opium, the user has a high risk of developing infections including HIV (human immunodeficiency virus) which is a virus that causes AIDS (acquired immune deficiency syndrome).

The effects of opium differ from person to person. Several factors will effect a persons reaction to the drug. These include the amount of opium taken, the users past drug experiences, the manner in which the drug is taken, and psychological and emotional stability of the person taking the drug ([see Britannica on Alcohol and Drug Consumption](#)).

Opium use leads to dependence. Severe caution must be used when taking an opiate. A persons tolerance builds up with each incident, forcing the user to take more to receive a "high". Some addicts need opiates to feel normal. Side effects to the drug are shallow breathing, pain, nausea, sleeplessness,

chills, muscle cramps, runny nose and watery eyes ([Facts About Opiates](#)). Physical and psychological dependence is seen with long term use. If use of the drug is stopped then withdrawal symptoms are uneasiness, sleepiness, diarrhea, cramps, goose bumps and a runny nose. Cravings for the drug are severe. More severe withdrawal symptoms effect bodily functions that can last up to six months. The withdrawal could eventually be fatal. Opiates shorten the human life span by both physical and mental aging. Continuous use of opium is eventually fatal. Overdose of opium usually causes respiratory failure.

Use of opium for recreational use is a worldwide problem. The intent of opiates is to relieve acute pain suffered from harm to the body. People from all races and income levels are known to use opiates, but the most problem is seen in the streets, where lower income people use the drug. For therapy for addicts to opium, methadone is used to block the cravings with no effects of its own ([Opiates: High Risk Addiction](#)).

There are several regulations on the use and distribution of opium. In most countries the production, trade and use of the narcotic is limited because they are addictive, have detrimental effects and people abuse them. The Narcotic Control Act regulates the possession and distribution of the drug. They allow only physicians, dentists, pharmacists, and veterinarians to keep opium on hand. ([Facts About Opiates](#)). There are very strict guidelines for its use. Illegal measures are importing, exporting, trafficking and possession which all have penalties of imprisonment.

In conclusion, a very potentially dangerous substance comes from the opium poppy, *Pavaver Somniferum*. Originally used for simple uses, the plant produces a drug that causes death and injury. The medicinal uses have been overlooked by people using opium for recreation, causes strict restrictions and laws to control it. The opium poppy has gained much attention all around the world.

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