

Other stimulants - Khat

Please student addresses these questions

What is Khat ?

To which class of drugs belongs khat?

What is the regulatory status of khat?

What economic role does khat play?

What are the effects of khat ?

In which situations is khat consumed?

What are adverse effects of khat?

What is the abuse potential of khat?

Khat (*Catha edulis*) is a large green shrub that grows at high altitudes in the region extending from eastern to southern Africa, as well as on the Arabian peninsula.

Originating in Ethiopia, khat now also grows in Somalia, Kenya, Malawi, Uganda, Tanzania, the Congo, Zambia, Zimbabwe, Afghanistan, Yemen and Madagascar.

Khat goes by numerous names: Khat, qat , chat, qaadka, kus-es-salahin miraa, tohai, tschat, Abyssinian tea, African tea, African salad, and brown cows (in tablet form).

Khat leaves are crimson-brown and glossy but become yellow-green and leathery as they age. The leaves are up to 5 cm wide and up to 10 cm long and emit a strong aromatic smell and have astringent and slightly sweet taste.



khat belongs class of drugs

Natural Stimulants

Betel nuts (arecoline)

Coca leaves (cocaine)

Coffee, tea (caffeine)

Khat (cathinone)

Tobacco (nicotine)

Stimulants

A class of drugs that enhances the activity of monoamines (such as dopamine) in the brain, increasing arousal, heart rate, blood pressure, and respiration, and decreasing appetite; includes some medications used to treat attention-deficit hyperactivity disorder, narcolepsy or is used as a local anesthetic. (e.g., methylphenidate, amphetamines and cocaine)

There is nonmedical use of the stimulants like Betel nuts (arecoline),
Coca leaves (cocaine), Coffee, tea (caffeine)
Khat (cathinone), Tobacco (nicotine).

The economic role of khat

Over the last three decades, khat has become a major source of employment, income and revenue in producing countries around the Horn of Africa.

Given its resistance to drought and low labour requirements, it is now an attractive choice for producers.

Exact numbers of regular khat users on a worldwide scale do not exist however, estimates range up to 20 million. In Europe, the substance is primarily used by migrant communities.

Khat is legal in Ethiopia, Djibouti, Kenya, Yemen and Uganda, Australia and UK., but illegal in Saudi Arabia, Tanzania, Eritrea, Sweden, Canada and USA.

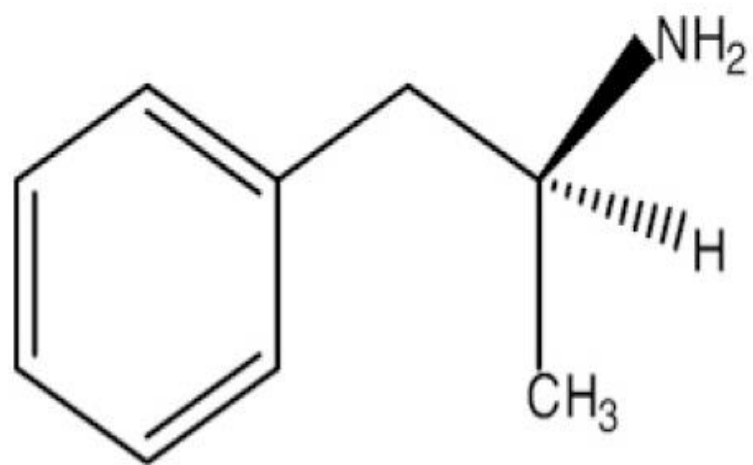
At the 34th meeting of the WHO Expert Committee on Drug Dependence (ECDD) it was determined that the potential for khat abuse and dependence was low.

In the 2006 report of the committee it was also noted that “The level of abuse and threat to public health is not significant enough to warrant international control. Therefore, the Committee did not recommend the scheduling of khat”

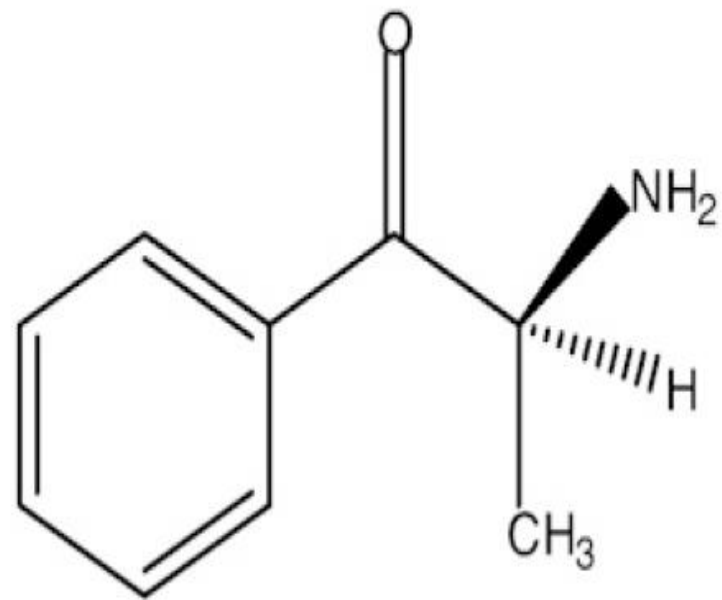
The effects of Khat

The main psychoactive ingredients in khat are cathine and cathinone, chemicals that are structurally similar to, but less potent than, amphetamine, yet result in similar stimulant effects.

Chewing khat leaves can induce a state of euphoria and elation as well as feelings of increased alertness and arousal. The user can also experience an increase in blood pressure and heart rate. The effects begin to subside after about 90 minutes to 3 hours, but can last 24 hours. At the end of a khat session, the user may experience a depressive mood, irritability, loss of appetite, and difficulty sleeping.

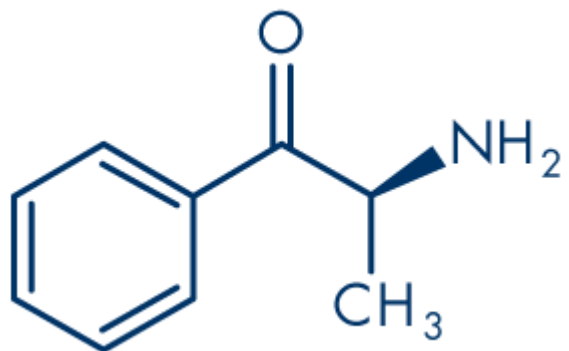


S (+) Amphetamine

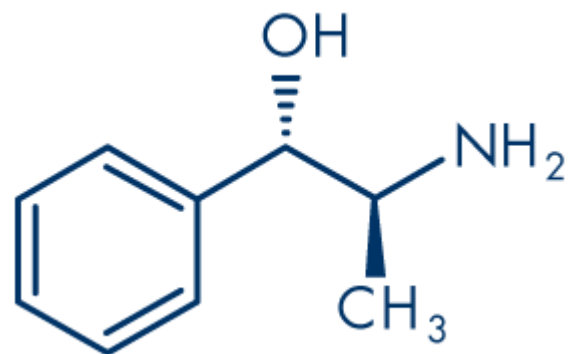


S (-) Cathinone

Cathinone



Cathine



Pharmacology

The stimulant effect of Khat is related to the cathinone content of the leaves.

Pharmacokinetics

After 1-hour of chewing, plasma levels range from 40 to 140 ng/ml (mean 83 ng/ml)., Cathinone is detectable in plasma for up to 24 hours after khat consumption.

The elimination half-life is 260 min. Metabolism of cathinone is rapid.

Psychopharmacological effects

Cathinone has markedly **stronger** effects than cathine and norephedrine.

Cathinone has been reported to be 7-10 times more potent than cathine.

Reasons to consume khat

socializing

improve performance

stay alert

increase work capacity

Students consume khat trying to improve performance **before exams.**

concentrate **during prayers**

heal ailments (headaches, body pains, fevers, arthritis and depression)

Khat use has traditionally been confined to the regions where khat is grown, since only the fresh leaves have stimulating properties. Today khat is airlifted to different countries

Adverse effects of khat

Cardiovascular system: tachycardia, palpitations, hypertension, arrhythmias, vasoconstriction, myocardial infarction, cerebral hemorrhage, pulmonary edema

Respiratory system: tachypnoea, bronchitis

Gastro-intestinal system: dry mouth, polydipsia, dental caries, periodontal disease, chronic gastritis, constipation, hemorrhoids, paralytic ileus, weight loss, duodenal ulcer, upper gastro-intestinal malignancy

Hepatobiliary system: fibrosis, cirrhosis

Genito-urinary system: urinary retention, spermatorrhoea, spermatozoa malformations, impotence, libido change

Adverse effects of khat cont..

Obstetric effects: low birth weight, stillbirths, impaired lactation

Metabolic and endocrine effects: hyperthermia, perspiration,
hyperglycaemia

Ocular effects: blurred vision, mydriasis

Periodontal effects

There is evidence of increased risk of periodontal cancer associated with khat consumption.

Central nervous system: dizziness, impaired cognitive functioning,
fine tremor, insomnia, headaches

Psychiatric effects: lethargy, irritability, anorexia, psychotic reactions,
depressive reactions, hypnagogic hallucinations

Abuse potential of khat

In an review Pennings et al.(2008) came to the conclusion: “the abuse potential of khat is low and khat dependence is low. Mild craving and tolerance to khat effects exists but there is no definite **withdrawal syndrome**.

According to Nutt et al., (2007) khat was ranked the lowest of 20 of the most well known legal and illegal psychoactive substances (Nutt et al., 2007) in terms of physical harm, dependence and social harm.

In 2010. Nutt et al. assessed psychoactive substances again and now khat was ranked as number 15.

The abuse potential of khat is low and compared to other drugs the risk of addiction. Use and abuse have to be evaluated in the context of the social, cultural and economic environment.

STAY SAFE AND HOME