

**THE MEDICAL SIGNIFICANCE OF PSYCHOTROPIC SUBSTANCES
PEMOLINE, FENCAMPHAMINE, AND FENPROPOREX**

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Abstract:

No matter how global the fight against psychotropics and drug addiction becomes, one has the impression that humanity's susceptibility to this disaster is increasing. According to the data published in the journal, 14 million to 56 million people use amphetamines, 12 million to 21 million people use opium, and 14 million to 21 million people use cocaine. More than 20 million people in the world take drugs by injection. Counting these millions makes one dizzy. However, at the root of this is a problem that is taking people's lives and is considered the lifeline of our lives, and you are worried.

Keywords: narcotics and psychotropic substances.

It is not yet possible to draw a conclusion about which side of the scale is on the side of the scales in the war declared by drug addiction on mankind or in the fight against this global problem. Therefore, it is too early to say that the threat will disappear soon. In my opinion, it depends on our vices and our ability to control our desires.

PEMOLIN- IYUPAK: 2-amino-5-fenil-1,3-oksazol-4-on

Brutto: C₉H₈N₂O₂

Synonyms: Pemoline, Phenylisohydantoin, Fenoxazole, Azoxodone, Fenoxazole, Seilert,

Tradon, Azoxodone, Dantromin, Centramine,

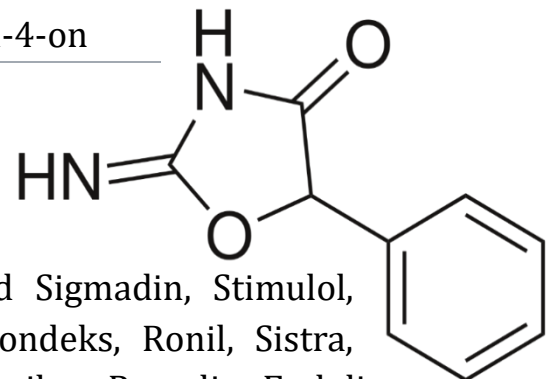
Deltamin, Hyton, Nitam, Betanamine, Ketamed Sigmadin, Stimulol,

Tradone, Volital, Miamin, Okodon, Pioksol, Pondeks, Ronil, Sistra,

Pheniminoxazolidinone, Konstamol, Fenalon, Fenilon, Pomolin, Endolin,

Notair, Volitol,

Pure substance in the form of white crystals, tasteless powder. Melting point 256 °C.

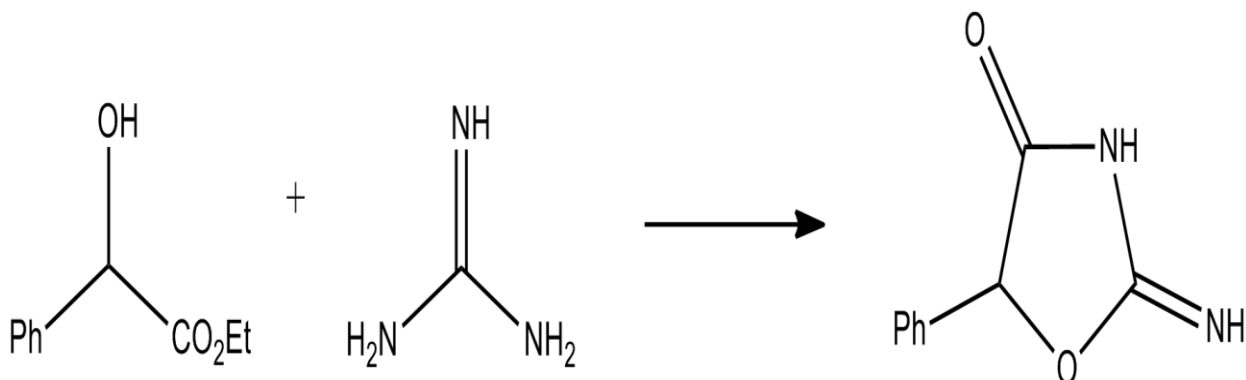
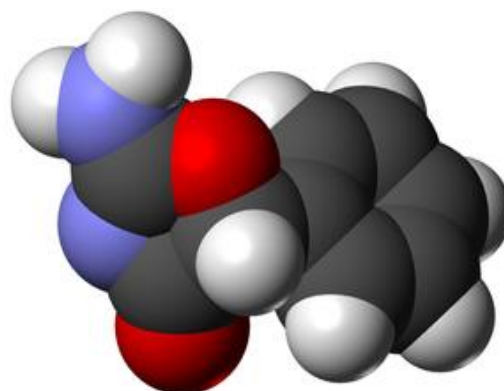


Breakdown:256-257 °C

Solubility: Almost insoluble in ether, acetone, hydrochloric acid; soluble in propylene glycol (1%) and hot alcohol. 556 mg/l in water at 25 °C. Pemoline is a drug with structural similarities to amphetamines and is used as a psychostimulant, to treat chronic fatigue syndrome and narcolepsy. Pemoline was first synthesized in 1913.

"Pemoline" belongs to the group of psychostimulants that do not belong to the amphetamine type, but it has common properties with amphetamine. In particular, when the doses are exceeded and medical recommendations are refused, the addictive effects of the drug appear.

Pemoline is synthesized by cyclocondensation of the ethyl ester of mandelic acid with guanidine.



The drug, which was synthesized more than a century ago, has not lost its importance, it is very effective both in monotherapy and as part of complex treatment of mental diseases. The drug is included in list III of the list of narcotic and psychotropic substances. It is prescribed only by a doctor, a prescription is required for purchase.

Pharmacokinetics: It is quickly absorbed from the gastrointestinal tract. Similar to amphetamines, this drug increases the flow of dopamine and norepinephrine into the synaptic cleft. After a single oral dose of 2 mg/kg, the maximum plasma concentration is 2.8 µg/ml after 4.3 hours. The half-life is 8.6-12 hours, and complete elimination from the body is 1 ml / min per 0.65 kg. Abnormal involuntary movements and psychoses begin after taking 1.5-2 mg/kg per day of pemoline for 3 weeks to 3 months.



It is a central nervous system stimulant and is used to treat children with attention deficit disorder, memory impairment, and adults with narcolepsy. The latter is a rare sleep disorder that is accompanied by paroxysmal attacks of falling asleep during active wakefulness.

There is no clear information about the causes and mechanisms of the appearance of pathology, but sufficient therapy has already been selected to improve the situation and prevent the exacerbation and attacks of hypnomania. The poor quality of night's sleep leads to a decrease in efficiency, absent-mindedness, poor concentration, and interpersonal conflicts. "Pemolin" allows to partially control the processes and improve the condition of patients of different ages.

The drug has cumulative properties, the maximum effect appears in 3-4 weeks of treatment. The main indication of recommendations is DYSGB - attention deficit hyperactivity disorder, often called hyperkinetic disorder. It develops in preschool age, from about 5 years old. At the same time, there is no determination to achieve the goal, there is no ability to memorize and analyze information arbitrarily, the spontaneous manifestation of emotions leads to a lack of control of behavior.

In most children, symptoms resolve over time, but in some patients the clinical presentation persists into adulthood. In such cases, drug therapy and behavioral psychotherapeutic treatment are necessary. In such conditions, "Pemoline" is prescribed as a safe and effective drug. The following side effects have been reported with pemoline: Hallucinations, convulsive seizures, mild depression, dizziness, increased irritability, headache, drowsiness, insomnia.

Circumstances that cannot be used. The main of them are liver disorders, this fact is especially noted in the instructions for the drug. In some patients, pemoline causes liver damage (called hepatotoxicity), so regular liver tests are recommended in those treated with this drug. When prescribing a course of treatment, it is mandatory to control the composition of the blood. Fatal hepatotoxicity is possible, therefore, a comprehensive assessment of potential harm and potential benefit is performed before starting therapy. In March 2005, Abbott Laboratories and some other manufacturers discontinued pemoline due to the risk of hepatotoxicity.

Additional effect. "Pemoline" can cause psychosis, there is a risk of addiction and abuse.



There is a risk of chronic insomnia, behavioral disorders. Some patients lose weight and lose appetite. It is not recommended to use "pemoline" in patients with symptoms of anorexia. The rate of development of additional symptoms is low, the drug usually has a good effect when following therapeutic doses. As a result of disordered consumption, a drug effect may occur, but it will be weak and transient. In cases of intoxication, delusions and hallucinations appear. It is necessary to monitor the patient's condition, because a long-term course can cause addiction, the consequences of which are difficult to predict. The probability of pathology depends on the individual characteristics of the patient's psyche.








Overdose. It is manifested by mental excitement, delirium, chaotic movements, trembling of hands. Hyperthermia, arrhythmia, seizures can be observed. In the case of loss of consciousness, it is necessary to ensure the patency of the airways to prevent suffocation and to monitor lung function to prevent suffocation.

Signs of drug addiction. The connection is obvious on a psychological level. When the drug is withdrawn, anxiety, aggression and tears increase. The symptoms of the main disease may return or the condition of accompanying diseases may worsen. The patient stops controlling himself, demands the return of the medicine, cannot cope with emotions, cannot sleep, cannot eat properly. Cancellation of the drug is carried out gradually under the supervision of a doctor. Usually, severe physiological diseases do not appear, but depression with suicidal tendencies may develop. Medication abuse for headaches, information and advice

Rf indicators of pemoline substance in different systems


No		Chromatographic systems	Proportions	Rf indicator
1	TAJ	chloroform-ethanol	90: 10	0,12
2	TAK	chloroform-cyclohexane-acetic acid	4: 4 : 2	0,14
3	TAL	chloroform-methanol-propionic acid	72: 18 : 10	0,60
4	TE	ethyl acetate-methanol-concentric ammonia solution	85 : 10 : 5	0,36
5	TA	methanol – concentrated ammonia solution	100: 1,5	0,60
6	TB	cyclohexane-toluene-diethylamine	75: 15 :10	-
7	TC	chloroform-methanol	90: 10	0,23
8	TL	acetone.	-	0,40
9	TAE	Methanol	-	0,81
10	TAF	methanol-n-butanol	(60 : 40) va 0,1 mol/l NaBr.	0,81

Below is information on products containing Pemoline, dosage and manufacturers:

	<p>Name: PEMOLINE Dose: 18.75 MG stamp: A 197 Manufacturer: AMIDE PHARMACEUTICALS Distributor: MALLINKRT PHARM</p>
	<p>Name: PEMOLINE Dose: 18.75 MG Author: INV 391 Manufacturer: GENEVA PHARMA</p>
	<p>Name: PEMOLINE Dose: 18.75 MG Author: GG 932 Manufacturer: SANDOZ</p>
	<p>Name: PEMOLINE Dose: 37.5 mg Author: A 161 Manufacturer: AMIDE PHARMACEUTICALS</p>
	<p>Name: PEMOLINE Dose: 37.5 mg Author: COPLEY 524 Manufacturer: COPLEY</p>
	<p>Name: PEMOLINE Dose: 37.5 mg Author: INV 392 Manufacturer: GENEVA PHARMA</p>
	<p>Name: PEMOLINE Dose: 37.5 mg Author: GG 933 Manufacturer: SANDOZ</p>



	Name: PEMOLINE Dose: 37.5 mg Mukhri: 93 9577 Manufacturer: TEVA LLC
	Name: CYLERT® Dose: 37.5 mg Author: LOGOTYPE TI Manufacturer: ABBOTT LABS. Distributor: PHYSICIANS TOTALCARE INC.
	Name: CYLERT® Dose: 37.5 mg Author: LOGOTYPE TK Manufacturer: ABBOTT LABS.
	Name: CYLERT® Dose: 75 mg Author: LOGOTYPE TJ Manufacturer: ABBOTT LABS. Distributor: PHYSICIANS TOTALCARE INC.
	Name: PEMOLINE Dose: 75 mg Author: A 162 Manufacturer: AMIDE PHARMACEUTICALS
	Name: PEMOLINE Dose: 75 mg Author: COPLEY 472 Manufacturer: COPLEY
	Name: PEMOLINE Dose: 75 mg Author: INV 393 Manufacturer: GENEVA PHARMA

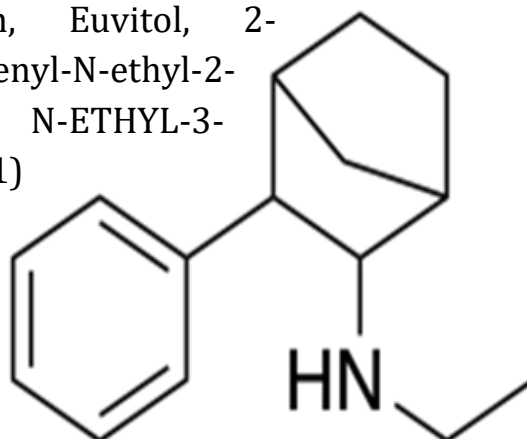
	<p>Name: PEMOLINE Dose: 75 mg Mukhri: 4931 V Manufacturer: QUALITEST PHARMA</p>
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FENCAMPAMIN-IUPAC name: N-ethyl-3-phenylbicyclo[2.2.1]heptan-2-amine.

Synonyms: Fencampamine, Reactivan, Euvitol, 2-Ethylamino-phenylnorbornene, 3-Phenyl-N-ethyl-2-norbornanamine, 2-NORBORNANAMINE, N-ETHYL-3-FYENIL-2-Phenyl-3-ethylaminobicyclo(2.2.1)heptane, N-Ethyl-3-phenylbicyclo[2.2.1]heptan-2-amine.

Physical properties: solid substance, solubility 2.95e-03 g/l.

Elimination - half-life - 16 hours.



Phencamphamine (XNN), also under the brand names Glucoenergan and Reactivan, is a stimulant developed by Merck in the 1960s.

With constant daytime fatigue, lethargy and apathy, people feel the need to artificially "cheer up" the nervous system. Phencamphamine (glucoynergan, Reactivan) is a stimulant that was developed in the 1960s as an appetite suppressant, but was later withdrawn from use due to addiction and abuse problems. Although the drug was originally designed to regulate appetite, later its ability to increase the mental and physiological activity of the body, as well as to improve endurance, began to be used to correct various apathetic diseases. It is about twice as effective as dexamfetamine and is prescribed in doses of 10-60 mg, but people who abuse the drug, as a rule, quickly develop tolerance and increase the dose. Phencampamine is used to treat depressive daytime fatigue, lack of concentration, and lethargy. It is particularly beneficial for patients with chronic diseases due to its favorable safety profile.

Use in medicine. Fencampamine is still used, albeit rarely, to treat depressive daytime fatigue, lack of concentration, and lethargy, especially in people with chronic medical conditions.

The drug is used only in some diseases that are accompanied by a strong decrease in vitality: depressive daytime fatigue; impaired concentration; lethargy.

The drug can be used to treat apathy in patients with chronic pathologies. It helps in the treatment of severe asthenia.

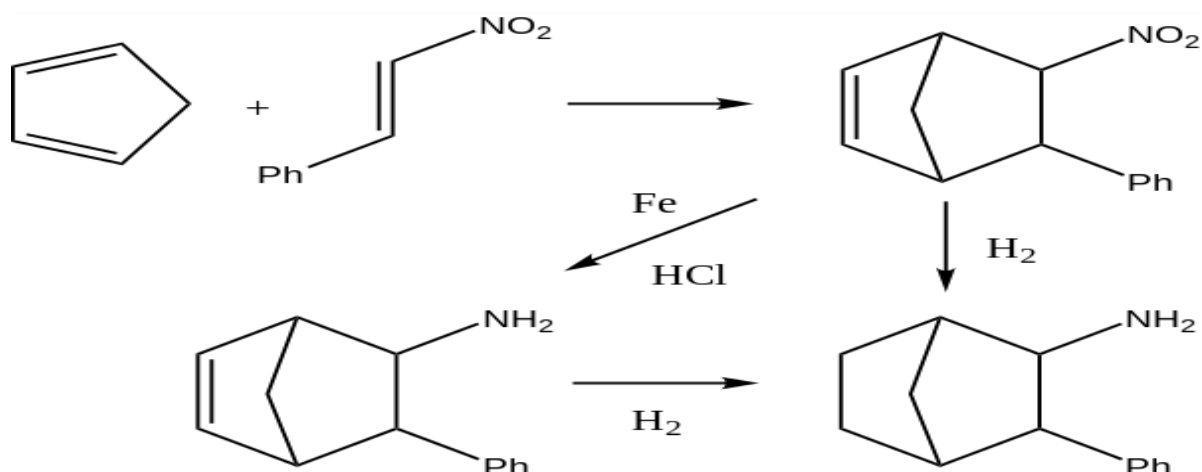
Negative effect. Fencampamine is well tolerated by the body and has a minimal effect on the circulatory system. Long-term use may cause dry mouth.

Circumstances where it is not possible to use. It is not used in heart diseases, angina pectoris and decompensated heart failure, glaucoma, hyperexcitability and thyrotoxicosis, as well as in the treatment of monoamine oxidase inhibitors.

Overdose symptoms include nausea, agitation and anxiety, dry mouth, dizziness, and tremors. With a large overdose, shortness of breath, tachycardia, disorientation and convulsions also appear.

Studies. Phencampamine acted as an indirect dopamine agonist in rat viscera. It released dopamine by the same mechanism as amphetamines, but produced this effect ten times less effectively than dexamphetamine. Instead, the primary mechanism of action is dopamine reuptake inhibition. In addition, unlike amphetamines, phencampamine does not inhibit the action of monoamine oxidase enzymes.

Obtainable. Phencampamine can be synthesized in a simple way using the Diels-Alder reaction from beta-nitrostyrene (1-nitro-2-phenylethene) with cyclopentadiene. As a result of the secondary bond at C = C and the saturation of the nitro group in the norcamphene derivative, the saturated derivative of norcamphene is obtained. Finally, the amino group matures. Although β -





nitrostyrene is commercially available, it can also be easily obtained from benzaldehyde and nitromethane using the Henry reaction. The reduction of the nitroalkene can be carried out sequentially. Alkene secondary bonds are usually reduced using hydrogen and a metal catalyst such as Ni or Pt, while the nitro group is reduced to the amine using a metal/acid combination such as Fe/HCl. The reduction of both functional groups can be carried out simultaneously using a Raney nickel catalyst. After initial reduction to the amine with acetaldehyde in the presence of Pt, the maturation of the amino group was improved with Ra-Ni and ethanol.

The stereochemical consequences of the steps involved in the above sequence of reactions were studied. Thus, as a result of Diels-Alder cyclocondensation, a product is formed in which the nitro and phenyl groups are in trans-locate with each other.

Effects on the body. The drug is an indirect dopamine antagonist. Once in the body, it inhibits the release of dopamine from synapses, in addition to blocking the reuptake of noradrenaline and dopamine. According to some laboratory studies, the substance is also said to act on opioid receptors. According to its effect, fencamphamin is similar to drugs of the amphetamine group, but differs from them in that it does not suppress the work of monoamine oxidase. This, in turn, delivers large amounts of enzymes to the synapses that have a stimulating effect on the nervous system.

According to the instructions, 10-60 mg of the drug per day is prescribed for the treatment of various forms of severe apathy. They start with a minimum dose of 10 mg, and if there is no expected tonic effect, the amount is gradually increased. The therapeutic dose can be divided into several parts and taken slowly. You can't eat or drink at night - the excitement of the nervous system causes sleep disorders. The fact that the drug improves physical and mental performance has led to increased consumption and demand among athletes, which has led to the fall under doping control. Today, the psychostimulant is included in the list of those prohibited in sports. If a doping control test is positive for fencamphamin, the athlete will be disqualified from the competition for an anti-doping violation.

Overdose and side effects. In therapeutic doses, phenamphetamine is well tolerated by patients. During the long-term course of treatment, dry mouth is often noted.



If the dose is accidentally or intentionally exceeded, the following may occur: dry mouth; nausea; dizziness; anxiety; quick excitability; increased heart rate; increased blood pressure; shortness of breath; trembling of limbs; muscle tension; disorientation.

Drug addiction - the risk of developing addiction.

Psychostimulant affects dopamine receptors and reward system. After using the drug, a person will feel a pleasant cheerfulness, an increase in mood and an improvement in mental abilities. Narcotic effects occur as if amphetamine was taken in small amounts.

In drug addicts or people treated for drug addiction, the work of receptors is disturbed by regular intake of mental stimulants, addiction is quickly formed, so the dose should be gradually increased to improve mood and gain physical and mental strength.

In addition, sometimes fencamphamin addiction is formed in people whose receptors are seriously weakened due to disease or under the influence of external factors, and apathy is hopelessly formed. In a therapeutic dose, the effect is so pleasant that there is a desire to repeat the situation. Some people start drinking drugs without control or increase the dose on their own to get rid of asthenic condition faster. The result is dependence and overdose.

Another reason is a change in perception during an overdose. Disorientation, hyperexcitability, and clouding of consciousness after high doses are similar to drug poisoning, so addicts use phencamphemin when they cannot get amphetamine-type drugs or other similar substances. .

What does abuse lead to? According to medical statistics, there are no cases of addiction to fencamphamin. The effects of the drug are very weak, and even with an overdose, not everyone experiences disorientation with changes in consciousness and perception, so there is no clear information about the consequences of long-term abuse.

Based on laboratory studies, it is assumed that with the development of addiction, long-term uncontrolled drugs cause disorders of the cardiovascular system. It is necessary to constantly increase the dose in order to reach the necessary level of psychological comfort during training. The use of large quantities of substances leads to tachycardia and an increase in blood pressure. Constant load on the organs leads to the development of pathological changes in the heart and blood vessels, increases the risk of heart attack and stroke.



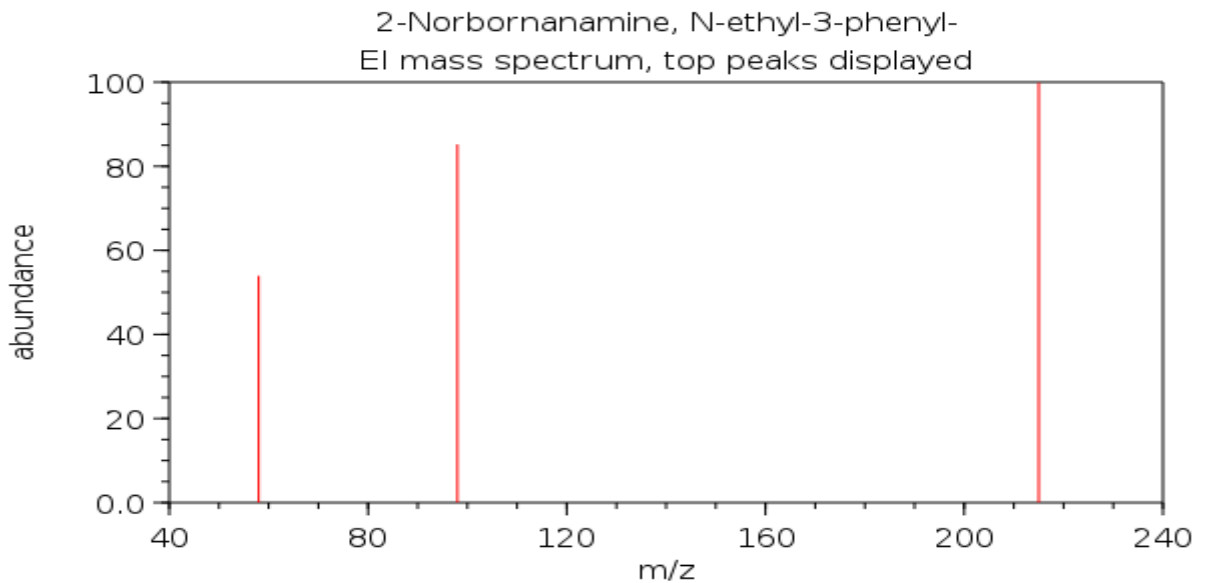
Other possible consequences are: constant thirst, the drug causes dry mouth, hyperexcitability, body fatigue. The drug activates nervous activity and suppresses appetite. A person almost does not feel hungry, forgets to eat. This leads to severe weight loss, vitamin deficiencies, and other malnutrition-related problems. Depression and insomnia. Artificial stimulation of the nervous system disrupts the natural release of norepinephrine and dopamine, if psychostimulants are not taken, sleep is disturbed, apathy and depressive thoughts appear. People who are sensitive to the effects of the substance may develop psychosis with clouding of consciousness, delusions and hallucinations.

Another dangerous consequence is addiction. A person addicted to fencampamine experiences a "withdrawal" syndrome with symptoms of chronic fatigue, headaches, apathy, and depression when they stop taking it. Some often turn to amphetamine-type drugs to relieve severe mental and physical discomfort. Dependence is already formed, so addiction develops quickly.

If you experience a craving for fencampamine, you should not try to get better with the drug or try to find a substitute—it will only make the situation worse. Timely help of a psychologist and narcologist with subsequent rehabilitation will help to return to life without dependence on psychostimulants.

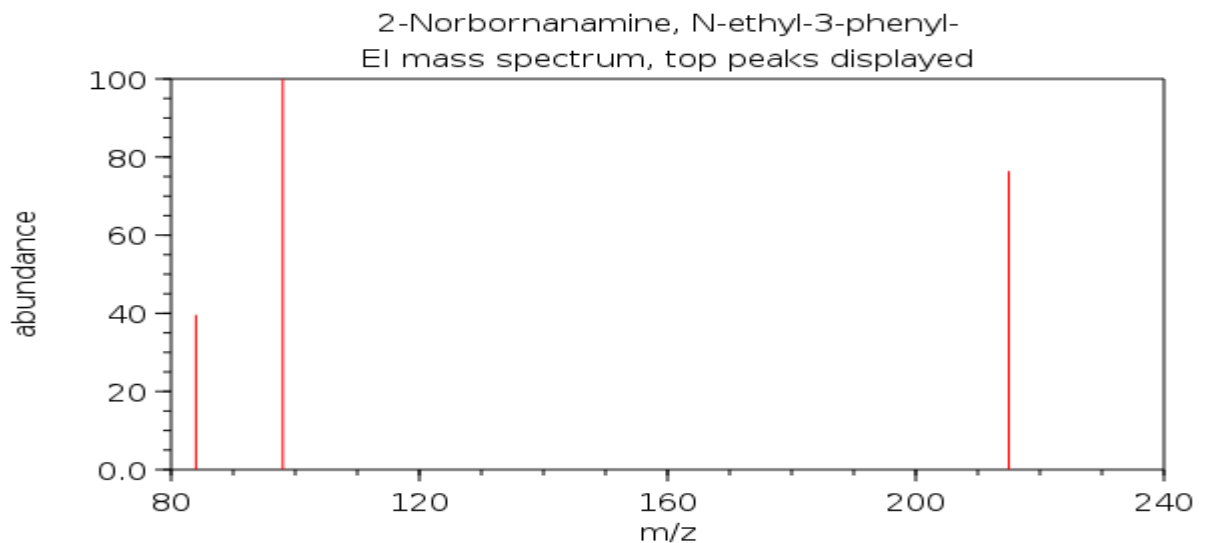
Gas chromatographic testing. Electron capture (EC) method for the simultaneous quantitative determination of nanogram concentrations of 2-ethylamino-3-phenyl-norbornene (fencamfamine, REAKTIVAN) and its metabolite 2-amino-3-phenylnorbornene in urine. Renal excretion of fencamphamin and its metabolite was observed for several days after oral administration to humans. The excretion of both substances is influenced by the pH value of urine. Excretion peaks were obtained 2-4 hours after administration, and the total amount excreted over 80 hours varied from 11.9 to 33.2%. Based on urinary values, the biological half-life of fencampamine was 16 hours. Administration of acetazolamide shortly after fencampamine results in decreased excretion of fencampamine and decreased excretion of metabolites for at least 10 hours. Acetazolamide did not affect the percentage of doses released during 80 hours. There were no changes in urine concentrations of fencamphamin or metabolites during cryopreservation of urine.

Mass spectrometry investigation. GX-MS. NIST number 235234, Library - main library, basic number of peaks - 148, m / z upper peak - 215, m / z Second peak - 98, m / z third peak - 58.



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NIST number - 246227, Library - replicated library, basic number of peaks - 148, m / z upper peak - 98, m / z Second peak - 215, m / z third peak - 84.



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IR spectra. ATR-IR spectra:

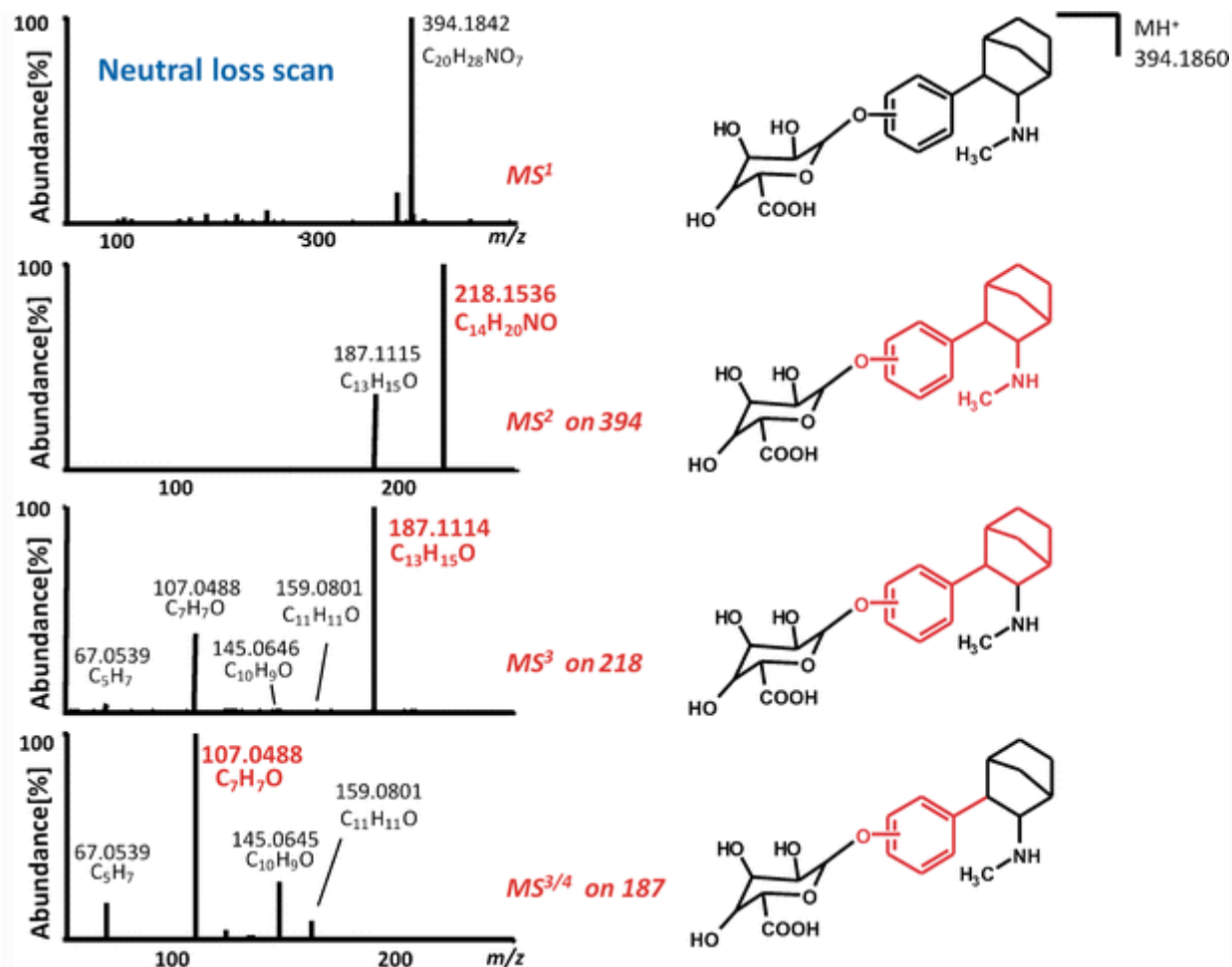
Instrument name- Bio-rad FTS, Method- ATR-film (MeCl₂) (DuraSamplIR II), sample source- Alltech Associates, Inc., Grace Davison Discovery Sciences, catalog number- Belastnaya base 01200.

Fencampamine Analogues

Cofetamine (N-methyl-3-phenyl-norbornan-2-amine; CFA) is a psychostimulant belonging to the group of new psychoactive substances. CFA is an analog of the appetite suppressant fencampamine, developed in the 1960s. CFA's reported effects are mild stimulation and increased alertness, and side effects include tachycardia, paranoia, and insomnia.

Metabolic processes of CFA, effects of cytochrome-P450 (CYP) and possibilities of detection in urine were studied. The conjugates were examined in rat urine by solid phase extraction without hydrolysis and with enzymatic hydrolysis. Metabolites of the first phase were examined on a non-acetylated gas chromatograph with mass spectrometry (GX-MS) and/or liquid chromatography with mass spectrometry (LC-HR-MS n), and metabolites of the second phase on LC-HR-MS n.

The following main metabolic pathways were distinguished from the identified metabolites: N-dimethylation, aromatic mono- or bis-hydroxylation, followed by methylation of one hydroxyl group, hydroxylation of the norbornene ring, a combination of these steps, and glucuronidation and/or sulfation of hydroxyl metabolites. N-dimethylation is catalyzed by CYP2B6, CYP2C19, CYP2D6 and CYP3A4, aromatic hydroxylation by CYP2C19 and CYP2D6, and aliphatic hydroxylation by CYP1A2, CYP2B6, CYP2C19 and CYP3A4. Finally, the regular user dose of CFA could be confirmed in rat urine using GC-MS and LC-MS by the authors, and CFA and several of its metabolites were found to be widely distributed in the hydroxyaryl and related glucuronide forms.



FENPROPOREX-3-(1-phenylpropan-2-ylamino)propanenitrile Metabolism. Partially converts to amphetamine (from 30 to 60%).

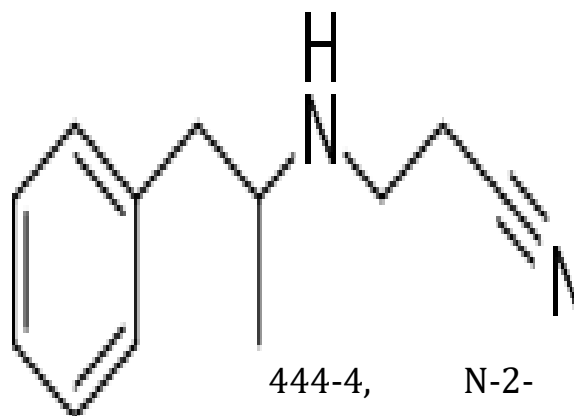
Release. About 5-9% is excreted in the urine, mainly in the form of amphetamine unchanged.

Formula. $C_{12}H_{16}N_2$

Molar mass 188.269 $g \cdot mol^{-1}$

Melting temperature: 146^oS

Synonyms: Femproporex monohydrochloride, Fenorex, 3-(1-phenylpropan-2-ylamino)propanenitrile, Dezobezi, EINECS 239-772-0, UNII-W0194S5FOA, DEA No. 1575, EINECS 240-cyanoethylamphetamine, N-(2-cyanoethyl)amphetamine, (+/-)-3-[(



444-4, N-2-alpha.-Methylphenethyl)



amino]propionitrile, Dieta Ifa. Fenproporex (Perfoxen, N-2-cyanoethylamphetamine, 3-(1 - phenylpropan-2-ylamino) propanenitrile, 3-[(1-methyl-2-phenylethyl) amino] propionitrile - belongs to the phenylethylamine and amphetamine chemical classes developed in the 1960s is a stimulant drug used as an appetite suppressant in the treatment of obesity.

Fenproporex produces amphetamine as a metabolite and has been banned in many countries due to abuse problems, although it is still used in some countries. Sometimes it is combined with benzodiazepines, antidepressants, and other compounds to form a "rainbow weight loss pill."

Analysis and interpretation of amphetamine results is a complex process complicated by a number of factors. One of the complications is determining the origin of amphetamine or methamphetamine in a sample. Given the relatively rare occurrence of prescribing either of these two drugs, positive results for one of these drugs do not necessarily indicate that the drugs were prescribed in their pure form. Many legal prescription drugs can be metabolized to amphetamine and methamphetamine. Fourteen different metabolic precursors of amphetamine or methamphetamine are included in this review. These are amphetamine, benzphetamine, clobenzorex, deprenyl, dimethylamphetamine, ethylamphetamine, famprofazone, phencamine, phenethylamine, fenproporex, furfenorex, mefenorex, mesocarb, and prenylamine.

Fenproporex was never approved for sale in the US by the US Food and Drug Administration (FDA) due to a lack of efficacy and safety data. However, in March 2009, the FDA warned consumers that it had been identified as an unlabeled ingredient in diet pills available over the Internet. Fenproporex is a Schedule IV controlled substance in the United States by law.

Fenproporex Jahon antidoping agentligi tomonidan taqiqlangan moddalar ro'yxatiga kiritilgan va ushbu modda uchun ijobiy sinovdan o'tgan har qanday sportchi musobaqadan chetlatilishiga duch keladi.

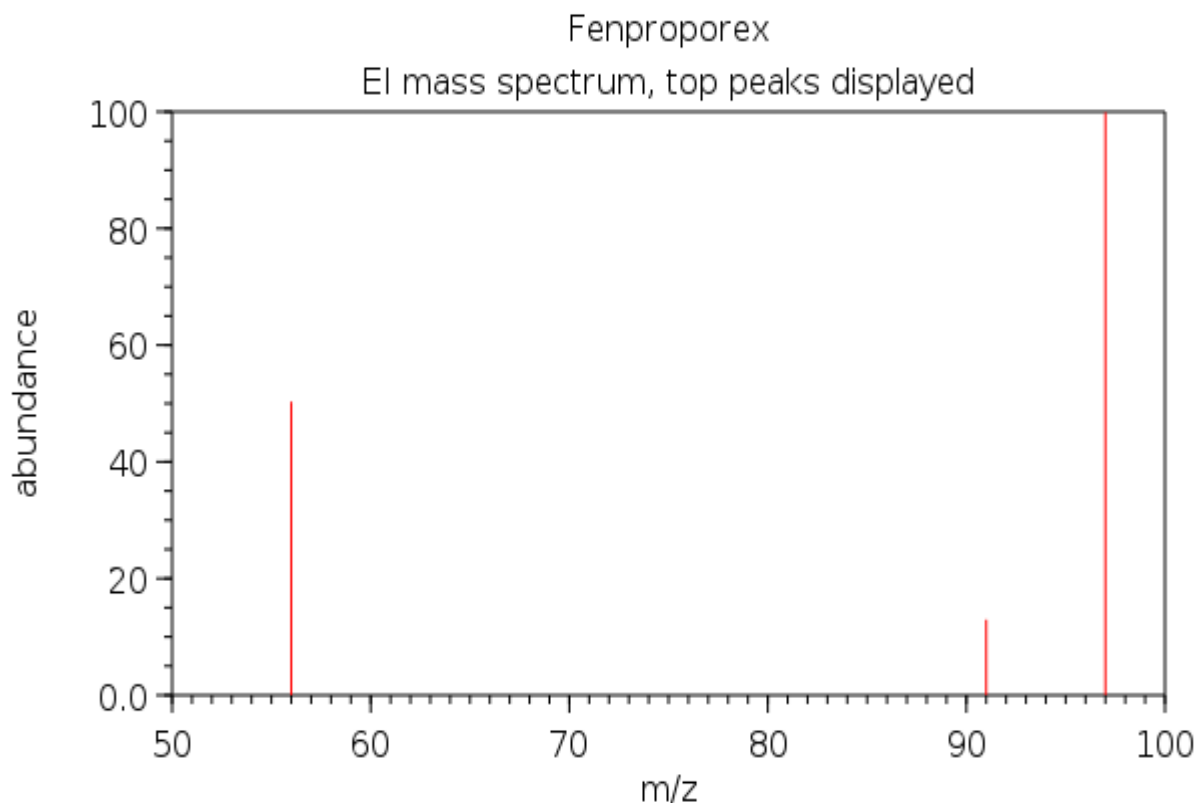
Structurally, fenproporex (N-2-cyanoethylamphetamine) belongs to the chemical class of phenylethylamine and amphetamine drugs. It was first believed that the N-2-cyanoethyl substituent was resistant to radical decay because fenproporex, once recommended for the treatment of obesity in patients with cardiovascular disease, lacked stimulant properties.

Contrary to the claim, studies have shown that the N-2-cyanoethyl substituent is readily cleaved in vivo to produce amphetamine as a metabolite. However, in clinical practice, it is known that the stimulating effect on the central nervous system is less than that of some other drugs, such as diethylpropion and mazindol.

Although fenproporex is banned in the United States, it is described as the second most widely used appetite suppressant worldwide, and anorexics containing fenproporex are still prescribed in South America. Little is known about the specific risks of amphetamine-based diet pills, but case reports have noted side effects such as chest pain, palpitations, headaches, and insomnia. Additionally, in placebo-controlled studies, those taking fenproporex reported more joint pain, sweating, visual disturbances, and tremors.

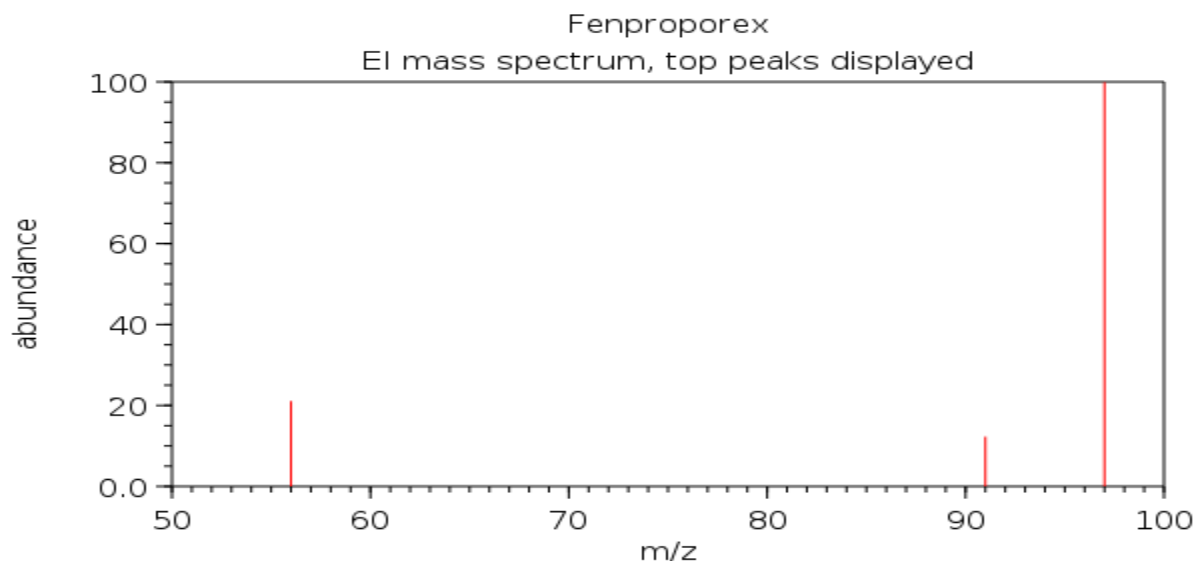
Chemical analysis. Mass spectrometry analysis.

GX-MS: NIST number-125738, Library: Main library, Total number of peaks 62, Top peak m / z - 97, second peak m / z - 56, third peak m / z -91 .



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GX-MS: NIST number- 247655, Library: Library Replication, Total number of peaks - 71, Top peak m / z - 97, second peak m / z - 56, third peak m / z - 91



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Use in medicine. Fenproporex is an anorexic stimulant. This drug belongs to the class of phenethylamines. This drug was developed in the mid-60s. Metabolite - amphetamine. Its properties help suppress appetite. According to the instructions, it helped to get rid of excess weight and treat obesity. The release form is tablets and capsules.

The main component causes many problems (including addiction). Therefore, Fenproporex is practically not used in medicine. But sometimes combinations of this drug with benzodiazepines and antidepressants are allowed.

Side effects. Taking fenproporex can help with severe anxiety attacks in some cases. It is present in the background, it increases during the day. It is accompanied by palpitations, arterial hypertension, dizziness, tremors and respiratory diseases.

Amphetamine helps to increase efficiency and activity. Against this background, strong insomnia develops. This manifests itself as difficulty falling asleep and frequent awakenings. Co-sleeping is more like peeing. Sometimes there are episodes of sleep paralysis.

When taking the drug in a therapeutic dose, many patients develop stimulant psychosis. This is expressed in the appearance of various delusional ideas (this is often a delusion of persecution: it seems to a person that he is



being followed or that some kind of conspiracy is being woven against him). Some have paranoid thinking, mental and behavioral disorganization.

When using Fenproporex, the pupil dilates. Vision often decreases, dry eye syndrome develops additionally. The skin turns pale, the color of the skin of the face resembles the color of the earth. About 20% cause skin reactions: pink papular rashes appear on the chest, abdomen, elbow folds, which itch strongly. Mood changes throughout the day. At first there is euphoria, which is replaced by apathy and gloomy depression. Noticeable consequences are yellowing and loss of teeth, as well as rapid weight loss. A person can lose up to 10 kg of weight in a week.

The development of addiction. The addictive effect of Fenproporex begins with a feeling of happiness. It seems to the patient that it is illuminated - and in this background there are pleasant body sensations. The general condition is slightly weakened. Then suddenly a manic effect appears. Consciousness also changes - super-awakening manifests itself. The addict is very restless and talks a lot. Speech is abnormally loud, often incoherent. A person overestimates his capabilities, often makes hasty promises, "wastes" money. After a few hours, the situation will return to normal. Mood drops (often critical, to the point of depression).

The following conditions are identified: Algii. Although there are no local pathological changes, painful sensations in any organ or part of the body.

Hyperesthesia. Increase sensitivity of teeth under the influence of temperature, chemical and mechanical stimuli. Paresthesia. Disturbance of skin sensitivity - sensation of crawling by ants, stinging, paralysis, burning.

If Fenproporex is taken by a depressed person, pathological dependence appears very quickly.

Initial stage. At the initial stage, a strong humor is formed. Tolerance develops gradually. Daily doses increase, the effect of a single dose decreases. The drug is taken cyclically. The duration of 1 cycle varies from 3 to 10 days. During such cycles, the addict loses a lot of weight (up to 15 kg). When the drug's effects wear off, the mood drops sharply. Anxiety, depression and sometimes suicidal thoughts predominate. When you stop taking Fenproporex, weakness appears, the need to sleep disappears.



The second stage. Tolerance increases, manic behavior determines the period of drug action. Redundancies give way to more orderly and efficient activities. In the last stage of intoxication, it is characterized by dissatisfaction and irritability.

Withdrawal is formed: after the end of the drug effect, unpleasant sensations in the heart and a severe headache are observed. There are also complaints of palpitations, tremors, and convulsive muscle contractions.

Some addicts develop ataxia (motor disorders, movement coordination disorders). Their hands and feet tremble, they yawn a lot and complain of being cold. The psychological state is mainly anxious and sad, often ideas of relationships are formed.

For several days, lethargy prevails, with adynamia, gloomy depression increases. The last condition is the syndrome of sudden weakness in the body. This is accompanied by a decrease in strength, efficiency and mental activity.

Movement activity first decreases and then stops completely. No appetite, weight loss continues. Sleep is very long, addicts often have strange dreams. Melancholic depression gradually weakens, lasts an average of 1.5 months. Sometimes it is replaced by acute psychosis in the form of hallucinosis or delirium. At this stage, addiction to Fenproporex takes root.

The third stage. Periods of taking drugs are shortened. During the period of intoxication, there is no raising of the previous mood. Speech slows down, there are perseverations. In this case, the addict is excited, anxious and shy. A new "fashion" appears - collecting junk. Withdrawal symptoms develop after 12-20 hours. In addition to headache and weakness, there are muscle fibrillation. The general condition is unstable. After 24 hours, drowsiness is replaced by insomnia. Anxiety is growing, dependence on the drug is increasing.

There is the development of sensory hyperesthesia, temporary coordination disorders. The patient suffers from intolerance to bright light (natural and artificial) and loud sounds. Their ability to perceive is sharpened. The surrounding objects seem to be in contrast and their contours are very clear. The movements are very awkward. Any attempt to change the position of the body can lead to a fall. A drug addict prefers to be in semi-darkness and in a horizontal position.



Then a manic affect appears. Relapsing depression gradually deepens after the drug's effects wear off.

Dangerous consequences.

Control of the situation is lost. A drug addict stops studying and working. Even social sanctions do not help to stop its use. Criticism of the parasitic lifestyle will also disappear.

When consuming very large doses of fenproporex, only perceptual illusions are formed at a high dose of intoxication. Psychoses last for several days. Their varieties: delirium, acute paranoid and oneiroid - dream-like, dream-like confusion of consciousness, which is characterized by the presence of pseudo-hallucinations, similar to a dreamlike dream. An overdose can lead to unbearable seizures. Death occurs due to cardiac arrest or arrhythmia with hyperpyrexia against the background of fever with very high body temperature above 41 degrees.

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