

# The Russian anti-anxiety drug linked to Gold Coast teens' overdoses

February 26 2018, by Janet Cheung, Jonathan Penm

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Phenibut was included in medical kits for Russian cosmonauts for its anti-anxiety and tranquilising properties. Credit: Wikimedia Commons

Phenibut was initially developed in the 1960s in Russia as an anti-anxiety (anxiolytic) drug with [cognitive enhancing properties](#). It has since attracted a strong following of users in the "smart drug" market, with claims of boosting memory recall and exam performance.

Originally given to Soviet cosmonauts to combat anxiety and insomnia,

the powdered [drug](#) is suspected to have played a role in the recent [overdose of seven teenagers](#) at a Queensland private school.

## How it works

Phenibut – [also known as](#) pbut, noofen, party powder (or its scientific name  $\beta$ -phenyl- $\gamma$ -aminobutyric acid and brand name Bifren) – is a psychotropic drug, which means it affects the user's mental state.

The drug is similar in structure to a type of neurotransmitter known as neurotransmitter  $\gamma$ -aminobutyric acid (GABA), which plays a role in reducing excitability and anxiety, as well as enhancing euphoria and cognitive function. Phenibut binds to a [specific subtype of the GABA receptor](#), activating a similar reaction as GABA.

Animal studies [have shown](#) that phenibut is able to penetrate the [blood brain barrier](#). The blood-brain barrier is an important mechanism that stops harmful toxins and bugs travelling through the blood stream and entering the brain.

Once phenibut reaches the brain the result is reduced anxiety and social inhibition. Because it depresses the central nervous system (like GABA), it is also used as a [mood elevator and tranquiliser](#).

Phenibut is structurally similar to the widely prescribed drug [baclofen](#) (Lioresal), which is available in Australia. Baclofen is prescribed as a muscle relaxant for patients with conditions such as multiple sclerosis.

## Weekly Dose



### Drug type

anxiolytic (anti-anxiety drug)



### Name

Animophenylbutyric acid, Fenibut, Fenigram, Phenigam, Phenybut  
Street names include: pbut, noofen or party powder



### Classification

Schedule nine (prohibited substance)



### Developed

1960s in Russia



### Cost

Can be bought online for around US\$50 per 250g



### Common form

Comes in crystal powder and capsules



### Side effects

Include: nausea, vomiting, constipation, diarrhoea, rash, low blood pressure, sedation respiratory depression, muscular weakness, drowsiness, dizziness, headache, seizures, insomnia, confusion, euphoria, depression, hallucinations, tremor, tinnitus and visual disturbances.

## What is it used for?

Phenibut can be used to treat anxiety, [post-traumatic stress disorder](#), [alcohol withdrawal syndrome](#) and vestibular (balance) disorders such as vertigo. It is also [used recreationally](#) in many countries including the United States, United Kingdom and Australia to reduce social anxiety and induce feelings of euphoria.

Animal studies [also show it has potential](#) to improve brain function after a stroke.

Phenibut is [not licenced](#) for use in the European Union, Australia or the United States due to safety concerns. In Australia specifically, the drug regulator, the Therapeutic Goods Administration (TGA) has [rejected 11 public submissions](#) for registration and states that phenibut "represents a significant risk of harm, including overdose".

Although phenibut is commercially available in few countries around the world, aside from Russia, a [recent study](#) showed that 48 unrelated internet suppliers sold phenibut from the United Kingdom, United States, China, Australia and Canada. In Russia and the Ukraine, it is commercially available as БИФРЕН (Bifren) and [daily doses](#) range from 500 to 2000 mg.

Phenibut was available as a powder in amounts ranging from 5 g to 1,000 kg and as capsules containing 200–500 mg in packs of between six

and 360.

## How was it developed?

Phenibut was first synthesised in Russia in the 1960s by Vsevolod Vasilievich Perekalin and his associates at the Department of Organic Chemistry of the Herzen Pedagogical Institute in St Petersburg, Russia. In [initial publications](#), phenibut was known as phenigamma.

### БИФРЕН КАПС. 250МГ №20

#### Бифрен капс. 250мг №20



Код товара: **1000374**

Производитель: «Фарма Старт ТОВ, Україна»

Наличие: **Есть**

Цена: **110,00**

Цена и наличие товара действительны на **23.02.2018**

Кол-во:  x 110,00 = **110,00** грн

In Russia, Phenibut is sold commercially.

The drug [used to be included](#) in medical kits for cosmonauts on Russian space flights due to the reports of enhanced cognition and high tranquilising properties.

## Side effects

Side effects of phenibut are generally linked to its central nervous system depressant effects, such as sedation and problems with breathing.

There is currently limited information about phenibut. But because it has [similar pharmacological properties to baclofen](#) it's likely to have similar side effects.

These include gastrointestinal symptoms (nausea, vomiting, diarrhoea), central nervous system symptoms (insomnia, confusion, euphoria, depression, hallucinations), and visual disturbances and musculoskeletal symptoms (such as tremors).

Users of phenibut can also [develop tolerance](#) within days, needing more of the drug to feel the same effects. This can increase the risk of adverse effects. Users may develop withdrawal effects, such as severe rebound anxiety and insomnia, when they stop taking the drug.

Despite phenibut not being registered or legally available in Australia, the TGA has received [three reports](#) of problems related to phenibut use in the past five years. These cases range from isolated symptoms of headaches, to a cluster of symptoms such as visual impairment, muscle spasms, palpitations and nausea/vomiting.

[Signs of overdose](#) include: shallow irregular breathing; drowsiness and lethargy; increased sweating; decreasing blood pressure; nausea and vomiting; and lowering body temperature.

The reported adverse events of phenibut are just scratching surface of a largely unregulated online drug market with no standards of quality assurance. So for those students seeking the competitive edge, it looks like those extra marks are not worth it after all.

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