

There has been an alarming emergence of various, less known psychoactive substances being purchased by consumers in retail settings leading to dependence, intoxication and withdrawal syndromes. These items are professionally packaged as items marketed to consumers for stress relief, cognitive enhancement and other health related claims. This fact sheet summarizes key clinical, pharmacological, and public health information related to two of these substances, **tianeptine and phenibut**, which are increasingly encountered in clinical and substance use settings and are not approved medications in the United States (US).

In Maryland, [Senate Bill 820](#) was passed during the 2026 legislative session that substantially expands enforcement authority for the state’s Alcohol, Tobacco, and Cannabis Commission (ATCC) and **specifically identifies tianeptine and phenibut products as targets for seizure and enforcement actions**. The law takes effect July 1, 2026.

Tianeptine (“Tia,” “Tiana,” “Zaza,” and “Gas Station Heroin”)

History and federal regulatory status:

- Discovered and patented in the 1960s, tianeptine is an antidepressant drug structurally similar to tricyclic antidepressants that is sold as a prescription medication under the brand names Coaxil and Stablon in some European, Asian, and Latin American countries for the treatment of anxiety and depression.
- Some sellers are marketing tianeptine with unproven claims that tianeptine can improve brain function and treat anxiety, depression, pain, opioid use disorder, and other conditions.
- It is not an FDA-approved medication in the United States. Tianeptine products are sold online and through convenience stores in the US.



*Tianeptine product
Image courtesy of the U.S. FDA*

Mechanism of action: Acts as a mu-opioid and delta-opioid receptor agonist, with additional effects involving serotonin transporters and glutamate signaling.

Clinical concerns:

- Increasing reports, including those to the [US National Poison Data Center](#), highlight potential of misuse, physical dependence, opioid-like withdrawal, respiratory suppression, and overdose deaths.

Withdrawal and treatment: Withdrawal symptoms associated with discontinuation of tianeptine may resemble opioid withdrawal and have been managed in some cases with buprenorphine-based treatment approaches. Naloxone responsiveness has been reported in some overdose cases.

Phenibut (fenibut, phenigam)

History and regulatory status:

- First synthesized [in the 1960s](#) in Russia as an antianxiety medication with cognitive enhancement properties. Used in Russia for [anxiety, insomnia, stuttering, and vestibular disorders](#).
- Phenibut is not FDA-approved and is [not legally considered a dietary supplement](#) in the United States, though it has been sold online and identified in some supplement products.



Phenibut product

Image [courtesy](#) of WYco

Mechanism of action: Phenibut (β -phenyl-GABA) is primarily a GABA-B receptor agonist with some activity at voltage-dependent calcium channels, producing effects similar to [baclofen and gamma-hydroxybutyrate \(GHB\)](#).

Clinical concerns:

- Phenibut is taken [orally](#) and toxicity can lead to [altered mental status, psychotic symptoms \(e.g., hallucinations, mania\), movement disorders \(e.g., tremors, catatonia\), seizures, and overdose](#). Risks may increase when combined with opioids, benzodiazepines, or alcohol.
- [US National Poison Center Data](#) show an increasing number of reports related to phenibut.
- Often marketed with claims as a stress relieving agent or cognitive enhancer.

Withdrawal and treatment: [Withdrawal may include](#) anxiety, irritability, agitation, insomnia, hallucinations, and psychosis, with severe cases occasionally progressing to delirium or seizures; similar to withdrawal from other sedatives like benzodiazepines. Patients suspected of phenibut withdrawal or overdose should be referred to the emergency department. Common [medications](#) used to treat withdrawal include benzodiazepines, baclofen, phenobarbital, antipsychotics, and gabapentin/pregabalin.

Key considerations

- The sale and distribution of these substances is **illegal**.
- Both substances are often marketed online or in convenience stores with claims of health benefits.
- Patients may not recognize these substances as opioids or sedative-like agents, increasing overdose risk.
- Clinicians should consider tianeptine or phenibut exposure in unexplained intoxication or withdrawal presentations.
- Neither substance is detected in routine urine toxicology screens.
- Polysubstance use involving opioids, alcohol, or benzodiazepines may increase risk of severe adverse events during active use.