

BENZODIAZEPINES

(Street Names: Benzos, Downers, Nerve Pills, Tranks)

Introduction:

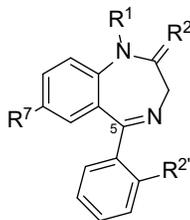
Benzodiazepines are a class of drugs that include both licit (i.e., prescription) and illicit (i.e., designer) substances. These substances have the potential for dependence and abuse, particularly by individuals with a history of multi-substance abuse. Abuse of these substances has resulted in serious adverse health effects, including loss of motor coordination, respiratory depression, memory loss, and blackouts.

Licit Uses:

The U.S. Food and Drug Administration (FDA) has approved a variety of benzodiazepines for medical use in the treatment of insomnia, anxiety, panic disorders, muscle spasms, and seizures. Some of these approved benzodiazepines are also used as an adjunct to anesthesia and for the treatment of alcohol withdrawal. According to IQVIA National Prescription Audit™, total prescriptions dispensed in the United States in 2025 was approximately 29.9 million for alprazolam, 21.0 million for clonazepam, 20.0 million for lorazepam, 8.6 million for diazepam, and 3.5 million for temazepam. Most of these medications are available as tablet and capsule preparations; several are also available as injectable preparations and syrup.

Chemistry:

Benzodiazepines are typically composed of a benzene ring fused to a seven-member diazepine ring. Most benzodiazepines also possess a phenyl ring attached at the 5-position of the diazepine ring. Small modifications of this basic structure account for the varied pharmacologic effects of these drugs.



Pharmacology:

Benzodiazepines produce central nervous system depression by enhancing the effects of the major inhibitory neurotransmitter gamma-aminobutyric acid, thereby decreasing brain activity. Benzodiazepines are classified by their duration of action, ranging from less than 6 hours to more than 24 hours, and some have active metabolites that prolong their effects.

Benzodiazepine use may result in adverse effects, including increased reaction time, motor incoordination, anterograde amnesia, slurred speech, restlessness, delirium, aggression, depression, hallucinations, and paranoia. Tolerance often develops after long-term use, requiring larger doses to achieve the desired effect. Physical and psychological dependence may develop, whether taken under a doctor's orders or used illicitly. Withdrawal symptoms include anxiety, insomnia, dysphoria, tremors, and seizures. Withdrawal severity is dependent on the dose, duration of use, and drug used. To precipitate withdrawal or reverse adverse effects, flumazenil may be administered.

Illicit Uses:

Those who misuse sedative hypnotics often use prescription benzodiazepines in excess of the recommended therapeutic dose. Benzodiazepines, particularly those with rapid onset, are abused to produce a euphoric effect. Benzodiazepines have long been associated with drug-facilitated sexual assault (e.g., flunitrazepam) and often associated with multiple-substance abuse. For example, users combine benzodiazepines with methadone to potentiate euphoric effects, as well as cocaine or other stimulants to relieve the side effects (e.g., irritability, agitation) associated with stimulant binges. Users also take benzodiazepines to augment the effects of alcohol and modulate withdrawal states.

More recently, novel designer benzodiazepines—such as bromazolam, ethylbromazolam, and phenazolam, among others—have become increasingly popular. These substances have appeared in a significant number of driving under the influence of drug (DUID) cases, toxicology reports, and death investigations.

According to the United Nations Office on Drugs and Crime, benzodiazepine-type novel psychoactive substances remain the most prevalent among clinical admissions, postmortem cases, and DUID cases. In 2024, America's Poison Centers® reported 40,288 case mentions; 14,363 single exposures; and 12 deaths associated with benzodiazepines.

Illicit Distribution:

DEA's National Forensic Laboratory Information System (NFLIS) Drug database collects scientifically verified data on drug items and cases submitted to and analyzed by participating federal, state, and local forensic drug laboratories. According to NFLIS-Drug, alprazolam, clonazepam, diazepam, and lorazepam continue to be among the most encountered benzodiazepines in law enforcement seizures, shown in the table below for select years and totals since 1997 (reports still pending for 2025).

Substance	2010	2015	2020	2025	Total
Alprazolam	40,704	43,083	20,441	11,552	699,719
Clonazepam	10,674	12,105	6,239	3,786	195,728
Diazepam	6,976	5,032	2,016	1,131	121,576
Lorazepam	2,274	2,561	1,098	706	41,641
Temazepam	346	323	114	52	6,255

Control Status:

FDA-approved and older non-FDA approved benzodiazepines are controlled in schedule IV of the Controlled Substances Act. Newer designer benzodiazepines with no approved medical use—such as bromazolam, clonazolam, diclazepam, etizolam, flualprazolam, and flubromazolam—are controlled in schedule I.