



# Addressing benzodiazepine overuse

Nearly 11% of U.S. adults use benzodiazepines, despite potentially dangerous side effects.<sup>1</sup>

Benzodiazepines can play a role in acute situations, for example as a transitional step while initiating other therapies that take time to be effective (e.g., SSRIs or cognitive behavioral therapy). **Typically, benzodiazepines should be discontinued after 4-6 weeks**, but many patients remain on them long-term, with potential ensuing risks.<sup>2</sup>

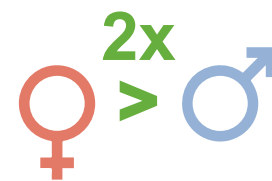
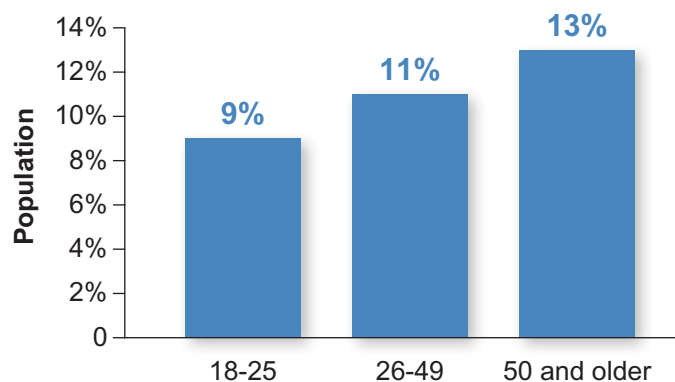
Long-term use of benzodiazepines occurs in nearly 1 in every 4 adults with estimates approaching 50% in older adults.<sup>3</sup>

## Common adverse effects of benzodiazepines

For every 7 people treated with a benzodiazepine over days to weeks, 1 person has an adverse event.<sup>4</sup> Concerning adverse effects occur frequently in patients who use benzodiazepines:

- drowsiness, lethargy, fatigue
- excessive sedation
- falls
- disturbances of concentration and attention
- rebound symptoms when stopped (e.g., insomnia, anxiety)
- hypotonia
- ataxia

**FIGURE 1.** Older adults use benzodiazepines more often than younger adults, and women are nearly twice as likely to be prescribed a benzodiazepine as men.<sup>1,5</sup>



**Women are nearly twice as likely to receive a benzodiazepine as men.<sup>5</sup>**

# Serious risks from benzodiazepines

## Withdrawal, addiction, abuse, and dependence

- **58-100% of patients can develop dependence** at therapeutic doses.<sup>6</sup>
- In 2016, 17% of adult benzodiazepine users reported misuse, and 1.5% reported a benzodiazepine use disorder.<sup>7</sup>



**58-100% develop dependence**

## Falls and hip fracture

- Community-dwelling adults who used benzodiazepines had a **55% greater risk of falls** compared to those who did not.<sup>8</sup>
- The increase in risk of hip fracture with benzodiazepine use may be as high as 50% in older adults, particularly when the drugs are initiated or when high doses are prescribed.<sup>9</sup>



**55% greater risk of falls**

## Cognitive impairment

- Use of benzodiazepines was associated with at least a **30% greater risk of dementia** compared to no use.<sup>10</sup>



**30% greater risk of dementia**

## Motor vehicle accidents

- Were **60% higher** among benzodiazepine users than non-users.<sup>11</sup>



**60% more car accidents**

## Mortality

- Use of benzodiazepines was associated with a **60% increase in mortality** compared to no use.<sup>12</sup>
- Patients prescribed opioids and benzodiazepine together had **twice the risk of death** compared to patients who use neither opioids nor benzodiazepines.<sup>12</sup> Over 70% of patients dying of opioid overdose were also taking a benzodiazepine.<sup>13</sup>



**60% increase in mortality**

# Reducing benzodiazepines

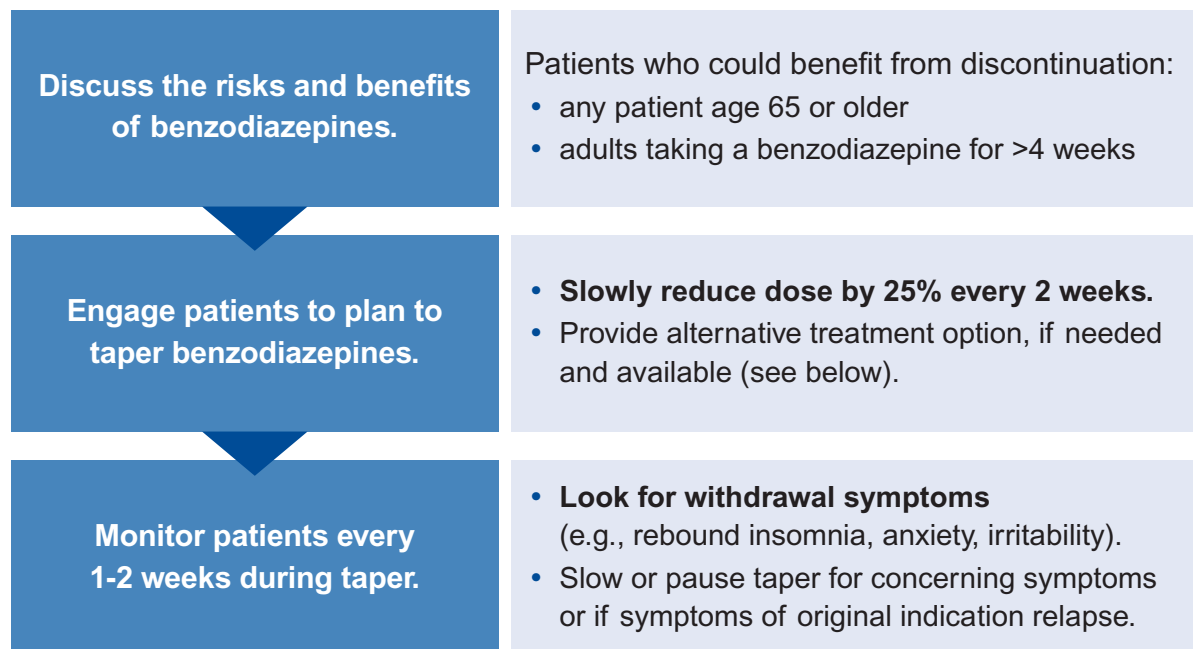
## Taper slowly to help patients stop chronic benzodiazepine use.

Abrupt withdrawal of benzodiazepines may result in anxiety, insomnia, seizures, delirium, psychosis, or hallucinations.<sup>2</sup> Generally, with a slow taper, withdrawal symptoms are mild and resolve within days to weeks.<sup>14</sup>

**Benefits of tapering benzodiazepines** include improved alertness and cognition, less daytime sedation, and reduced falls risk.

## Plan for an individualized taper

**FIGURE 2.** An approach to reducing benzodiazepine doses<sup>14</sup>



## Alternative treatment options during a taper:

<b>Insomnia</b>	<b>cognitive behavioral therapy for insomnia (CBT-I)</b> —provided by a mental health professional or an app (e.g., Sleepio, CBT-I Coach) <sup>15</sup>
<b>Anxiety</b>	<b>selective serotonin reuptake inhibitor for anxiety</b> —psychiatric evaluation

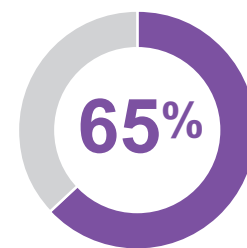
**Additional validated tools and resources for benzodiazepine tapering are available at [Deprescribing.org](https://www.deprescribing.org)**

# Successful tapering is possible

More than 65% of benzodiazepine users are able to discontinue use.<sup>14,16</sup>

In addition to slow tapers, patient education and pharmacist engagement in deprescribing can assist in discontinuing benzodiazepines.<sup>17,18</sup>

Other medications (e.g., flumazenil, pregabalin) have not been found effective to support benzodiazepine taper and withdrawal.<sup>19</sup>



**65% of patients are able to stop benzodiazepine use.**

## Key points

- **Short-term use of benzodiazepines (i.e., 4-6 weeks) may be necessary** for some patients.
- Long-term use of benzodiazepines can cause **serious harms and addiction** in patients with prolonged use.
- Reducing and discontinuing benzodiazepines is possible with **slow taper and support**.

## References:

(1) Substance Abuse and Mental Health Services Administration. 2019 National Survey of Drug Use and Health (NSDUH) Releases. [samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases](https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases). Accessed December 15, 2020. (2) Soyka M. Treatment of Benzodiazepine Dependence. *N Engl J Med*. 2017;376(12):1147-1157. (3) Kurko TAT, Saastamoinen LK, Tähkääpää S, et al. Long-term use of benzodiazepines: Definitions, prevalence and usage patterns – a systematic review of register-based studies. *European Psychiatry*. 2015;30(8):1037-1047. (4) Buscemi N, Vandermeer B, Friesen C, et al. The efficacy and safety of drug treatments for chronic insomnia in adults: a meta-analysis of RCTs. *J Gen Intern Med*. 2007;22(9):1335-1350. (5) Santo L, Rui P, Ashman JJ. Physician Office Visits at Which Benzodiazepines Were Prescribed: Findings From 2014-2016 National Ambulatory Medical Care Survey. *Natl Health Stat Report*. 2020(137):1-16. (6) Guina J, Merrill B. Benzodiazepines I: Upping the Care on Downers: The Evidence of Risks, Benefits and Alternatives. *J Clin Med*. 2018;7(2):17. (7) Blanco C, Han B, Jones CM, Johnson K, Compton WM. Prevalence and correlates of benzodiazepine use, misuse, and use disorders among adults in the United States. *J Clin Psychiatry*. 2018;79(6):18m12174. (8) Woolcott JC, Richardson KJ, Wiens MO, et al. Meta-analysis of the impact of 9 medication classes on falls in elderly persons. *Arch Intern Med*. 2009;169(21):1952-1960. (9) Cumming RG, Le Couteur DG. Benzodiazepines and risk of hip fractures in older people: a review of the evidence. *CNS Drugs*. 2003;17(11):825-837. (10) Penninkilampi R, Eslick GD. A Systematic Review and Meta-Analysis of the Risk of Dementia Associated with Benzodiazepine Use, After Controlling for Protopathic Bias. *CNS Drugs*. 2018;32(6):485-497. (11) Rapoport MJ, Lanctot KL, Streiner DL, et al. Benzodiazepine use and driving: a meta-analysis. *J Clin Psychiatry*. 2009;70(5):663-673. (12) Xu KY, Hartz SM, Borodovsky JT, Bierut LJ, Gruzza RA. Association Between Benzodiazepine Use With or Without Opioid Use and All-Cause Mortality in the United States, 1999-2015. *JAMA Netw Open*. 2020;3(12):e2028557. (13) National Institute on Drug Abuse. Overdose death rates. [drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates](https://www.drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates). Published March 10, 2020. Accessed Dec 7, 2020. (14) Pottie K, Thompson W, Davies S, et al. Deprescribing benzodiazepine receptor agonists: Evidence-based clinical practice guideline. *Can Fam Physician*. 2018;64(5):339-351. (15) Espie CA, Emsley R, Kyle SD, et al. Effect of Digital Cognitive Behavioral Therapy for Insomnia on Health, Psychological Well-being, and Sleep-Related Quality of Life: A Randomized Clinical Trial. *JAMA Psychiatry*. 2019;76(1):21-30. (16) Reeve E, Ong M, Wu A, Jansen J, Petrovic M, Gnjjidic D. A systematic review of interventions to deprescribe benzodiazepines and other hypnotics among older people. *Eur J Clin Pharmacol*. 2017;73(8):927-935. (17) Martin P, Tamblyn R, Benedetti A, Ahmed S, Tannenbaum C. Effect of a Pharmacist-Led Educational Intervention on Inappropriate Medication Prescriptions in Older Adults: The D-PRESCRIBE Randomized Clinical Trial. *JAMA*. 2018;320(18):1889-1898. (18) Tannenbaum C, Martin P, Tamblyn R, Benedetti A, Ahmed S. Reduction of inappropriate benzodiazepine prescriptions among older adults through direct patient education: the EMPOWER cluster randomized trial. *JAMA Intern Med*. 2014;174(6):890-898. (19) Baandrup L, Ebdrup BH, Rasmussen J, Lindschou J, Gluud C, Glenthøj BY. Pharmacological interventions for benzodiazepine discontinuation in chronic benzodiazepine users. *Cochrane Database Syst Rev*. 2018;3(3):Cd011481.



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