# Tolerance, Physical Dependence & Addiction

The following three concepts are often misunderstood or erroneously interchanged, leading to misdiagnoses, inappropriate treatment, and harm:

1. **Tolerance**
2. **Physical/Physiological Dependence**
3. **Addiction** (sometimes termed 'Substance Use Disorder')

# According to the FDA, what does each term mean?

**Tolerance** is a physiological state characterized by a reduced response to a drug after repeated exposure. (In other words, a higher dose of a drug is required to produce the same effect that was once obtained at a lower dose.)

**Physical Dependence** describes the changes that occur in the body in response to repeated medication or drug use. If physical dependence has developed, withdrawal symptoms emerge after reducing the dose or abruptly stopping it.

**Addiction** describes a cluster of behavioral, cognitive, and physiological phenomena. It may include: a strong desire to take the drug; difficulties in controlling drug use despite harmful consequences; giving a higher priority to drug use than other activities and obligations; and can include tolerance or physical dependence.

# Facts that Patients and Medical Providers Must Know

- **Physical dependence** can occur alone, in the absence of addiction, or in individuals with no personal or family history of addiction.

- Drugs do not necessarily have to induce a sense of pleasure or a high to lead to physical dependence. For instance, beta blockers, steroids, and antidepressants can and do cause physical dependence, resulting in subsequent withdrawal syndromes.

- **Tolerance** and/or withdrawal symptoms alone are not indicators of **addiction**, but they are indicators of **physical dependence**. Tolerance is an expected outcome of chronic benzodiazepine prescription.

- The FDA and the Diagnostic & Statistical Manual (DSM) differentiate addiction from physical dependence. Medication Guides and Patient Package Inserts also make this distinction clear.

## Statistics: True Benzodiazepine Addiction is RARE

In a study of U.S. adults (18+) surveyed in 2015-2016, 12.5% reported benzodiazepine use, with only 0.2% meeting the criteria for a substance use disorder (SUD). Among benzodiazepine users, just 1.5% had a benzodiazepine use disorder (addiction).

## Important Take Home Messages

Patients should be informed that they are at risk of developing physical dependence if they take benzodiazepines for longer than a few days or weeks. If physical dependence occurs, there is a risk of severe and disabling withdrawal effects, including protracted withdrawal, which can last for years in some cases, or an inability to stop the drug altogether.

Patients who are already physically dependent due to long-term prescribing, often without informed consent, should not be forced to withdraw against their will. Recent research suggests they frequently experience poor outcomes.

Patients who are solely physically dependent on benzodiazepines will require outpatient tapering to stop, which may extend over months or even years. This prolonged duration allows some patients to gradually reduce their dosage at a tolerable rate and speed. Detox, rehab, rapid withdrawal, or addiction-focused treatments like AA/NA are inappropriate for these patients. It's essential to recognize that this issue stems from iatrogenic factors rather than addiction.

## Summary

Physical dependence and addiction are not synonymous. The majority of benzodiazepine patients are not addicted. For physically dependent patients, abrupt cessation or rehab isn't appropriate. Instead, should they choose to stop the medication, they should be allowed to taper slowly, outpatient, at a rate and speed they deem tolerable based on the severity of their withdrawal symptoms.