

Buspirone

Buspirone is a medication primarily used for generalized anxiety, but often is combined with SSRI medications to treat clinical depression. This drug is a 5-HT_{1A} receptor partial agonist and increases the release of dopamine and norepinephrine. Its activity on 5-HT_{1A} receptors is believed to be its primary mechanism of action, which helps mediate anxiety and depressive symptoms. Buspirone's activity at the D₂ receptor is thought to contribute to dopamine availability. A hallmark of this drug is that it has a low side effect profile, and does not cause addiction or tolerance. Unlike benzodiazepines (another class of anxiolytics), buspirone does not interact with alcohol to cause respiratory depression, but alcohol use shouldn't be recommended since buspirone can cause sedation.



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Indications

Generalized Anxiety

General with Anxiety-bag

This drug is primarily used to treat generalized anxiety disorder. Buspirone can also be combined with SSRI therapy to treat clinical depression.

Mechanism of Action

Releases Dopamine and NE

Releasing Doberman and North-epi-pen

Buspirone selectively blocks presynaptic mesolimbic D₂ autoreceptors in lower doses and yields increased dopamine synthesis and release. Buspirone also increases firing in the locus ceruleus, an area of brain where norepinephrine cell bodies are found in high concentration, increasing NE.

Stimulates 5-HT_{1A} receptors

Turning on 5-HT Silver-tonic Receptors

Another characteristic of buspirone is that it functions as a serotonin 5-HT_{1A} receptor partial agonist. This agonist activity mediates its anxiety and antidepressive effects, and because this drug is a partial agonist, it has a lower side effect profile.

Side Effects

Low Side Effect Profile

Low Side Fx Sign

This drug doesn't cause addiction or tolerance, unlike benzodiazepines (which is another drug class used for anxiety).

Safer with Alcohol than Other Anxiolytics

Martini Ignored

Buspirone has less of an interaction with alcohol than do other anxiolytics, such as benzodiazepines. However, buspirone can cause sedation, and therefore concurrent use of alcohol should not be encouraged.