**BUSPIRONE**

**Brands** • BuSpar
*see index for additional brand names*

**Generic?** Yes

**Class**
- Neuroscience-based Nomenclature:
  - serotonin receptor partial agonist (S-RPA)
- Anxiolytic (azapirone; serotonin 1A partial agonist; serotonin stabilizer)

**Commonly Prescribed for**
(bold for FDA approved)
- Management of anxiety disorders
- Short-term treatment of symptoms of anxiety
- Mixed anxiety and depression
- Treatment-resistant depression (adjunctive)

**How the Drug Works**
- Binds to serotonin type 1A receptors
- Partial agonist actions postsynaptically may theoretically diminish serotonergic activity and contribute to anxiolytic actions
- Partial agonist actions at presynaptic somatodendritic serotonin autoreceptors may theoretically enhance serotonergic activity and contribute to antidepressant actions

**How Long Until It Works**
- Generally takes within 2–4 weeks to achieve efficacy
- If it is not working within 6–8 weeks, it may require a dosage increase or it may not work at all

**If It Works**
- The goal of treatment is complete remission of symptoms as well as prevention of future relapses
- Treatment most often reduces or even eliminates symptoms, but not a cure since symptoms can recur after medicine stopped
- Chronic anxiety disorders may require long-term maintenance with buspirone to control symptoms

**If It Doesn’t Work**
- Consider switching to another agent (a benzodiazepine or antidepressant)

**Best Augmenting Combos for Partial Response or Treatment Resistance**
- Sedative hypnotic for insomnia
- Buspirone is often given as an augmenting agent to SSRIs or SNRIs

**Tests**
- None for healthy individuals

**SIDE EFFECTS**

**How Drug Causes Side Effects**
- Serotonin partial agonist actions in parts of the brain and body at receptors other than those that cause therapeutic actions

**Notable Side Effects**
- Dizziness, headache, nervousness, sedation, excitement
- Nausea
- Restlessness

**Life-Threatening or Dangerous Side Effects**
- Rare cardiac symptoms

**Weight Gain**
- Reported but not expected

**Sedation**
- Occurs in significant minority

**What to Do About Side Effects**
- Wait
- Wait
- Wait
- Lower the dose
- Give total daily dose divided into 3, 4, or more doses
- Switch to another agent

**Best Augmenting Agents for Side Effects**
- Many side effects cannot be improved with an augmenting agent
BUSPIRONE

DOSE AND USE

Usual Dosage Range
• 20–30 mg/day

Dosage Forms
• Tablet 5 mg scored, 10 mg scored, 15 mg multiscored, 30 mg multiscored

How to Dose
• Initial 15 mg twice a day; increase in 5 mg/day increments every 2–3 days until desired efficacy is reached; maximum dose generally 60 mg/day

Dosing Tips
• Requires dosing 2–3 times a day for full effect
• Absorption is affected by food, so administration with or without food should be consistent

Overdose
• No deaths reported in monotherapy; sedation, dizziness, small pupils, nausea, vomiting

Long-Term Use
• Limited data suggest that it is safe

Habit Forming
• No

How to Stop
• Taper generally not necessary

Pharmacokinetics
• Metabolized primarily by CYP450 3A4
• Elimination half-life approximately 2–3 hours
• Absorption is affected by food

Drug Interactions
• Use with caution with MAOIs, including 14 days after MAOIs are stopped (for the expert)
• CYP450 3A4 inhibitors (e.g., fluoxetine, fluvoxamine, nefazodone) may reduce clearance of buspirone and raise its plasma levels, so the dose of buspirone may need to be lowered when given concomitantly with these agents
• CYP450 3A4 inducers (e.g., carbamazepine) may increase clearance of buspirone, so the dose of buspirone may need to be raised
• Buspirone may increase plasma concentrations of haloperidol
• Buspirone may raise levels of nordiazepam, the active metabolite of diazepam, which may result in increased symptoms of dizziness, headache, or nausea

Other Warnings/Precautions
• None

Do Not Use
• If patient is taking an MAOI (except as noted under Drug Interactions)
• If there is a proven allergy to buspirone

SPECIAL POPULATIONS

Renal Impairment
• Use with caution
• Not recommended for patients with severe renal impairment

Hepatic Impairment
• Use with caution
• Not recommended for patients with severe hepatic impairment

Cardiac Impairment
• Buspirone has been used to treat hostility in patients with cardiac impairment

Elderly
• Some patients may tolerate lower doses better

Children and Adolescents
• Studies in children age 6–17 do not show significant reduction in anxiety symptoms in generalized anxiety disorder (GAD)
• Safety profile in children encourages use

Pregnancy
• Effective June 30, 2015, the US FDA requires changes to the content and format of pregnancy and lactation information in prescription drug labels, including the elimination of the pregnancy letter
categories; the Pregnancy and Lactation Labeling Rule (PLLR or final rule) applies only to prescription drugs and will be phased in gradually for drugs approved on or after June 30, 2001
• Controlled studies have not been conducted in pregnant women
• Animal studies have not shown adverse effects
• Not generally recommended in pregnancy, but may be safer than some other options

Breast Feeding
• Some drug is found in mother’s breast milk
• Trace amounts may be present in nursing children whose mothers are on buspirone
• If child becomes irritable or sedated, breast feeding or drug may need to be discontinued

Potential Disadvantages
• Takes 4 weeks for results, whereas benzodiazepines have immediate effects

Primary Target Symptoms
• Anxiety

Pearls
✽ Buspirone does not appear to cause dependence and shows virtually no withdrawal symptoms
• May have less severe side effects than benzodiazepines
✽ Buspirone generally lacks sexual dysfunction
• Buspirone may reduce sexual dysfunction associated with GAD and with serotonergic antidepressants
• Sedative effects may be more likely at doses above 20 mg/day
• May have less anxiolytic efficacy than benzodiazepines for some patients
• Buspirone is generally reserved as an augmenting agent to treat anxiety

THE ART OF PSYCHOPHARMACOLOGY

Potential Advantages
• Safety profile
• Lack of dependence, withdrawal
• Lack of sexual dysfunction or weight gain

Suggested Reading

