
LISDEXAMFETAMINE (Vyvanse) Fact Sheet [G]

Bottom Line:

Vyvanse may have a gentler, “smoother” side effect profile than other amphetamines, and it probably has a lower risk of diversion or abuse. However, its high cost even in generic form means insurance companies don’t like to pay for it without prior authorization.

FDA Indications:

ADHD (adults and children ≥ 6 years); **binge eating disorder** (BED).

Off-Label Uses:

Narcolepsy; obesity; treatment-resistant depression.

Dosage Forms:

- **Capsules:** 10 mg, 20 mg, 30 mg, 40 mg, 50 mg, 60 mg, 70 mg.
- **Chewtabs:** 10 mg, 20 mg, 30 mg, 40 mg, 50 mg, 60 mg.

Dosage Guidance:

- ADHD (adults and children ≥ 6 years): Start 30 mg QAM, \uparrow by 10–20 mg/day at weekly intervals. Target lowest effective dose; max 70 mg/day.
- BED: Start 30 mg QAM, \uparrow by 20 mg/day at weekly intervals to target 50 mg/day; max 70 mg/day.

Monitoring: ECG if history of cardiac disease.

Cost: \$\$\$

Side Effects:

- Most common: Headache, insomnia, anorexia, abdominal pain, irritability, agitation, tics, decreased appetite, increased heart rate, jitteriness, anxiety.
- Serious but rare: See class warnings in chapter introduction.
- Pregnancy/breastfeeding: Limited data in pregnancy; likely safe in breastfeeding.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Stimulant that inhibits reuptake of dopamine and norepinephrine.
- Metabolized primarily through non-CYP-mediated hepatic and/or intestinal metabolism; $t_{1/2}$: lisdexamfetamine (inactive prodrug) < 1 hour; dextroamphetamine (active metabolite) 12 hours. Dextroamphetamine metabolized by CYP2D6.
- Avoid use with MAOIs and antacids. Caution with antihypertensives (decreased efficacy of antihypertensive). Caution with 2D6 inhibitors, which may increase stimulant effects.

Clinical Pearls:

- Lisdexamfetamine is dextroamphetamine with the chemical lysine bound to it, which renders it inactive. It remains inactive until GI enzymes cleave off lysine and convert it to active dextroamphetamine. This means that drug abusers can’t get high by snorting or injecting it.
- Anecdotally, Vyvanse has a more gradual onset and offset than other stimulants, and it may cause fewer side effects than other amphetamines.
- Taking with food decreases the effect slightly and delays peak levels by an hour. If patients feel it’s not “kicking in” fast enough, have them take it earlier or on an empty stomach.
- Lisdexamfetamine 70 mg is equivalent to 30 mg of mixed amphetamine salts (Adderall).
- While indicated for BED, it is not approved for use as a weight loss or anti-obesity agent.

Fun Fact:

The manufacturer of Vyvanse pursued an indication as an add-on medication for depression, but disappointing results in clinical trials put an end to this effort.