
DEXTROAMPHETAMINE (Dexedrine, ProCentra, Zenzedi) Fact Sheet [G]

BOTTOM LINE:

Good drug with very long history of experience, available in short- and long-acting formulations as generics.

PEDIATRIC FDA INDICATIONS:

ADHD (3–17 years); **narcolepsy** (6–17 years).

ADULT FDA INDICATIONS:

Narcolepsy.

OFF-LABEL USES:

Obesity; treatment-resistant depression.

DOSAGE FORMS:

- **Tablets (Dexedrine, [G]):** 5 mg, 10 mg (scored).
- **Tablets (Zenzedi):** 2.5 mg, 5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg (5 mg scored, 10 mg double scored; rest unscored).
- **ER capsules (Dexedrine Spansules, [G]):** 5 mg, 10 mg, 15 mg.
- **Liquid (ProCentra, [G]):** 5 mg/5 mL.

PEDIATRIC DOSAGE GUIDANCE:

- **ADHD (IR and ER):**
 - Children >6 years: Start 5 mg QAM; ↑ by 5 mg/day at weekly intervals to max 60 mg/day, though doses >40 mg/day rarely more effective. Divide IR dose QD–TID.
 - Children 3–5 years: Start 2.5 mg QAM; ↑ by 2.5 mg/day weekly to max 60 mg/day, though doses >40 mg/day rarely more effective. Divide IR dose QD–TID.
- **Narcolepsy (IR and ER):**
 - Start 5 mg QAM (ages 6–11) or 10 mg QAM (ages 12–17); ↑ by 5 mg/day (ages 6–11) or 10 mg/day (ages 12–17) weekly to max 60 mg/day. Divide IR dose QD–TID.

MONITORING: Weight, height, BP/P; ECG.

COST: IR/ER: \$ (ProCentra: \$\$\$)

SIDE EFFECTS:

- Most common: Abdominal pain, anorexia, nausea, tics, insomnia, tachycardia, headache.
- Serious but rare: See class warnings in chapter introduction.

MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:

- Stimulant that inhibits reuptake of dopamine and norepinephrine.
- Metabolized primarily through CYP450 2D6 (minor) and glucuronidation; $t_{1/2}$: 12 hours.
- Avoid use with MAOIs, antacids.

EVIDENCE AND CLINICAL PEARLS:

- At least five randomized clinical trials, some dating back to the 1970s, support the efficacy of dextroamphetamine in children with ADHD.
- Dextroamphetamine is the more potent d-isomer of amphetamine; it has potentially less peripheral effects (eg, motor tics) than racemic mix (eg, mixed amphetamine salts like Adderall, amphetamine, or methamphetamine).
- Doses of IR tablets and oral solution can be given at intervals of four to six hours.
- Dextroamphetamine is the only stimulant, other than Adderall IR, approved for children <6 years (approved for children >3 years).
- The newer Zenzedi brand offers more dosing flexibility options, but is more expensive than generic IR tablets.
- Available in a new patch formulation as Xelstryl (see fact sheet).
- Also available as D,L racemic mixture of amphetamine as Evekeo tablets, Adzenys XR-ODT, and Dyanavel XR oral suspension (see amphetamine fact sheet).

FUN FACT:

Dexys Midnight Runners, the British band famous for its song “Come On Eileen” (1982), derived their name from Dexedrine—“Dexys” after the drug’s name and “Midnight Runners” in reference to the energy it provides.