Medications for ADHD

Stimulants and non-stimulants, when to pick which, and the cardiac and growth picture. Reviewed against current guidelines as of June 8, 2026.

Stimulants are first-line in children and adults. They work better than non-stimulants, they work faster, and about 70 percent respond to any given trial. Non-stimulants sit in second line and become first when stimulants don't fit. Companion to the full guide at psychiatryrx.org/guides/medications-for-adhd/.

First-line options

Drug	Class	Notes
Methylphenidate IR (Ritalin, Focalin)	Stimulant (MPH)	3 to 4 hour duration. Dexmethylphenidate is roughly twice as potent per mg.
Methylphenidate ER (Concerta, Ritalin LA, Metadate, Daytrana, Cotempla, Azstarys)	Stimulant (MPH)	8 to 12 hour coverage. Formulations are not interchangeable. Patch peels off to end effect.
Amphetamine IR (Adderall)	Stimulant (AMP)	4 to 6 hour duration.
Amphetamine XR (Adderall XR, Mydayis)	Stimulant (AMP)	10 to 16 hour duration depending on formulation.
Lisdexamfetamine (Vyvanse)	Stimulant (AMP prodrug)	12 to 14 hour duration. Lower abuse potential. Also approved for binge eating disorder.
Dextroamphetamine (Dexedrine, Zenzedi, ProCentra)	Stimulant (AMP)	d-isomer alone. Liquid formulation available.
Atomoxetine (Strattera)	Non-stimulant (NRI)	Once daily, 40 to 100 mg adults. Onset 2 to 4 weeks. Non-controlled.
Viloxazine (Qelbree)	Non-stimulant (NRI)	Faster onset than atomoxetine. CYP1A2 inhibitor.
Guanfacine ER (Intuniv)	Non-stimulant (alpha-2A)	Approved 6 to 17. Useful when hyperactivity, tics, or emotional dysregulation are prominent.
Clonidine ER (Kapvay)	Non-stimulant (alpha-2)	More sedating than guanfacine. Often at bedtime, helps sleep too.

Second-line and augmentation

Drug	Class	When to consider
Add guanfacine ER or clonidine ER to a stimulant	Combination	Late afternoon rebound, emotional dysregulation, sleep problems, or partial stimulant response.
Switch stimulant family	Stimulant	MPH to AMP or vice versa when first family has failed. Response to families is only partly correlated.
Bupropion	Atypical antidepressant	ADHD plus depression, or when stimulants are not appropriate (SUD history).
Modafinil, armodafinil (off-label)	Wake-promoting	Adult ADHD with prominent fatigue and low arousal.
TCAs (desipramine, nortriptyline)	TCA	Rarely used now. Cardiac and overdose concerns.

Special considerations

- Baseline cardiac assessment: symptom history (syncope, exertional chest pain, palpitations), family history of sudden cardiac death under 40, physical exam, baseline BP and HR. Routine ECG is not required in otherwise healthy patients with a negative history.
- Growth in children: track height and weight. Effect on final adult height is roughly 1 to 3 cm on average. Drug holidays are sometimes used but evidence for utility on final height is limited.
- Sleep: later dosing and higher doses are the usual culprits. Adjust timing first. Guanfacine or clonidine at bedtime can help both ADHD and sleep.
- Pregnancy: mixed data on stimulant teratogenicity. Bupropion is often the non-stimulant of choice.
- SUD: lisdexamfetamine has lower abuse potential. Atomoxetine, viloxazine, guanfacine, and bupropion are non-stimulant options.
- Comorbid anxiety: treat the anxiety first or use a non-stimulant. Guanfacine sometimes helps both.
- Bipolar without a mood stabilizer: stimulants can precipitate mania. Stabilizer first.

What tips the choice

No strong contraindications and wants next-day effect: a stimulant. Long day (school plus after school): lisdexamfetamine or Concerta or Adderall XR. Late-afternoon rebound: add short-acting IR on top, or add guanfacine ER. Substance use history: lisdexamfetamine or a non-stimulant. Cardiac risk: non-stimulant first. Tics: guanfacine or atomoxetine. Anxiety comorbid: treat anxiety first, or use atomoxetine, viloxazine, or add guanfacine. Sleep problems: earlier last stimulant dose, or add clonidine at bedtime. Adult ADHD with depression: bupropion covers both partially.

Watchouts

- Contraindications: untreated glaucoma, MAOI use, significant cardiac disease with uncontrolled hypertension.
- Refractory ADHD: revisit the diagnosis. Sleep disorder, depression, anxiety, SUD, and thyroid disease all mimic ADHD.
- Feeling like a zombie or flat is a sign the dose is too high or the medication is wrong. Not the goal.
- Stimulants are Schedule II. For patients who take as prescribed, addiction is uncommon, but IR at higher doses and history of SUD are the higher-risk situations.
- Guanfacine and clonidine: watch orthostasis and sedation. Do not stop abruptly (rebound hypertension).
- Atomoxetine: rare suicidal ideation signal in children and adolescents, monitor first weeks.

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