

Stimulant and Related Medications: U.S. Food and Drug Administration-Approved Indications and Dosages for Use in Pediatric Patients

The therapeutic dosing recommendations for stimulant and related medications are based on U.S. Food and Drug Administration (FDA)-approved product labeling. Nevertheless, the dosing regimen is adjusted according to a patient's individual response to pharmacotherapy. The FDA-approved dosages and indications for the use of stimulant and related medications in adults are provided in this table. All medication doses listed are for oral administration. Information on the generic availability of the stimulant and related medications can be found by searching the Electronic Orange Book at <https://www.accessdata.fda.gov/scripts/cder/ob/default.cfm> on the FDA website.



Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
amphetamine/dextroamphetamine mixed salts[1]	ADHD	3 to 5 years old	Initial dose: 2.5 mg per day; Maximum dose: 40 mg per day	May increase daily dose by 2.5 mg at weekly intervals until optimal response is achieved; give first dose on awakening.* Only in rare cases will it be necessary to exceed a total of 40 mg per day.	Yes
amphetamine/dextroamphetamine mixed salts	ADHD	6 years old and older	Initial dose: 5 mg once or twice a day; Maximum dose: 40 mg per day	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved; give first dose on awakening.* Only in rare cases will it be necessary to exceed a total of 40 mg per day.	Yes
amphetamine/dextroamphetamine mixed salts	narcolepsy	6 to 12 years old	Initial dose: 5 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses; Maximum dose: 60 mg per day	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved; give first dose on awakening.*	Yes
amphetamine/dextroamphetamine mixed salts	narcolepsy	12 years old and older	Initial dose: 10 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses; Maximum dose: 60 mg per day	May increase daily dose by 10 mg at weekly intervals until optimal response is achieved; give first dose on awakening.*	Yes

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
amphetamine/dextroamphetamine mixed salts ER†[2]	ADHD	6 to 12 years old	Initial dose: 10 mg once a day; Maximum dose: 30 mg once a day	May increase daily dose by 5 mg or 10 mg at weekly intervals. An initial dose of 5 mg once a day may be given based on clinical judgment. Give dose on awakening.	Yes
amphetamine/dextroamphetamine mixed salts ER†	ADHD	13 to 17 years old	Initial dose: 10 mg once a day; Maximum dose: 20 mg once a day	May increase to 20 mg once a day after 1 week if symptoms are not controlled; there was no adequate evidence that doses greater than 20 mg per day conferred additional benefit. Give dose on awakening.	Yes
atomoxetine‡[3]	ADHD	6 to 17 years old and up to 70 kg	Initial dose: 0.5 mg per kg per day; Target dose: 1.2 mg per kg per day; Maximum dose: 1.4 mg per kg per day up to 100 mg per day	May increase after 3 days to target dose; dose may be given once a day in the morning or twice a day, evenly divided, in the morning and late afternoon or early evening.	Yes
atomoxetine‡	ADHD	6 to 17 years old and weighing more than 70 kg	Initial dose: 40 mg per day; Target dose: 80 mg per day; Maximum dose: 100 mg per day	May increase after 3 days to target dose. Dose may be further increased to 100 mg per day after 2 to 4 additional weeks; dose may be given once a day in the morning or twice a day, evenly divided, in the morning and late afternoon or early evening.	Yes

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
benzphetamine[25 mg][4]	exogenous obesity	12 years old and older	Initial dose: 25 mg to 50 mg once a day; Suggested dose: 25 mg to 50 mg 1 to 3 times a day	Dose adjustments may be made by increasing the dose or frequency. Dose should be individualized depending on the response of the patient.	No
benzphetamine[50 mg][5]	exogenous obesity	12 years old and older	Initial dose: 25 mg to 50 mg once a day; Suggested dose: 25 mg to 50 mg 1 to 3 times a day	Dose adjustments may be made by increasing the dose or frequency. Dose should be individualized depending on the response of the patient.	Yes
clonidine ER (Kapvay®)[6]	ADHD	6 to 17 years old	Initial dose: 0.1 mg once a day at bedtime; Maximum dose: 0.4 mg in two divided doses	Increase dose by 0.1 mg weekly. Doses above 0.1 mg should be taken in divided doses; at 0.3 mg per day, take 0.1 mg in the morning and 0.2 mg at bedtime.	Yes
dexmethylphenidate[7]	ADHD	6 to 17 years old	Patients naive to methylphenidate: Initial dose: 2.5 mg twice a day; Maximum dose: 10 mg twice a day. Patients taking methylphenidate: Initial dose: one-half the methylphenidate dose; Maximum dose: 10 mg twice a day.	May increase daily dose by 2.5 mg to 5 mg at weekly intervals; give doses 4 hours apart with or without food.	Yes

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
dexamethylphenidate ER†[8]	ADHD	6 years old and older	<p>Patients naive to methylphenidate: Initial dose: 5 mg once a day; Maximum dose: 30 mg once a day.</p> <p>Patients taking methylphenidate: Initial dose: one-half the total daily dose of methylphenidate; Maximum dose: 30 mg once a day.</p> <p>Patients taking dexamethylphenidate: Initial dose: the same total daily dose of dexamethylphenidate given once a day; Maximum dose: 30 mg once a day</p>	May increase daily dose by 5 mg at weekly intervals. Give dose in the morning.	Yes
dextroamphetamine[9]	ADHD	3 to 5 years old	<p>Initial dose: 2.5 mg once a day; Maximum dose: 40 mg per day</p>	May increase daily dose by 2.5 mg at weekly intervals until optimal response is achieved. Give first dose upon awakening. Only in rare cases will it be necessary to exceed a total of 40 mg per day.	Yes
dextroamphetamine	ADHD	6 years old and older	<p>Initial dose: 5 mg once or twice a day; Maximum dose: 40 mg per day</p>	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved. Give first dose upon awakening. Only in rare cases will it be necessary to exceed a total of 40 mg per day.	Yes

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
dextroamphetamine	narcolepsy	6 to 12 years old	Initial dose: 5 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved.	Yes
dextroamphetamine	narcolepsy	12 years old and older	Initial dose: 10 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses	May increase daily dose by 10 mg at weekly intervals until optimal response is achieved.	Yes
dextroamphetamine SR[10]	ADHD	6 to 16 years old	Initial dose: 5 mg once or twice a day; Maximum dose: 40 mg per day	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved.	Yes
dextroamphetamine SR	narcolepsy	6 to 12 years old	Initial dose: 5 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved.	Yes
dextroamphetamine SR	narcolepsy	12 years old and older	Initial dose: 10 mg per day; Usual dose: 5 mg to 60 mg per day in divided doses	May increase daily dose by 10 mg at weekly intervals until optimal response is achieved.	Yes
guanfacine ER (Intuniv®)[11]	ADHD	6 to 17 years old	Initial dose: 1 mg per day; Maximum dose: 7 mg per day	Target dose should be in the range 0.5 mg per kg per day to 0.12 mg per kg per day. Doses above 4 mg per day were not studied in children 6 to 12 years old; doses above 7 mg per day were not studied in adolescents over 12 years old. Doses above 4 mg per day were not studied for adjunctive therapy.	Yes
lisdexamfetamine§[12]	ADHD	6 to 17 years old	Initial dose: 30 mg once a day; Maximum dose: 70 mg once a day	May increase daily dose by 10 mg or 20 mg at weekly intervals. Give in the morning; afternoon doses should be avoided due to the potential to cause insomnia.	No

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
methamphetamine[13]	ADHD	6 years old and older	Initial dose: 5 mg once or twice a day; Usual effective dose: 20 mg to 25 mg per day	May increase daily dose by 5 mg at weekly intervals until optimal response is achieved. May give total daily dose in 2 divided doses. When possible, interrupt administration to assess behavioral symptoms and need for continued therapy.	Yes
methamphetamine	exogenous obesity	12 years old and older	Dose: 5 mg one-half hour before each meal	Treatment should not exceed a few weeks in duration.	Yes
methylphenidate[14]	ADHD	6 years old and older	Initial dose: 5 mg twice a day (before breakfast and lunch); Maximum dose: 60 mg per day	May increase daily dose by 5 mg to 10 mg at weekly intervals. Discontinue if improvement is not noted after 1 month.	Yes
methylphenidate chewable tablet and solution[15]	ADHD	6 years old and older	Initial dose: 5 mg twice a day (before breakfast and lunch); Maximum dose: 60 mg per day	May increase daily dose by 5 mg to 10 mg at weekly intervals. Discontinue if improvement is not noted after 1 month. Oral solution comes in two concentrations: 5 mg per 5 ml and 10 mg per 5 ml.	Yes
methylphenidate ER (Aptensio XR[TM])†[16]	ADHD	6 years old and older	Initial dose: 10 mg once a day in the morning; Maximum dose: 60 mg per day	May increase dose weekly by 10 mg until effective.	No

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
methylphenidate ER (Concerta®)‡[17]	ADHD	6 to 12 years old	<p>Patients naive to methylphenidate: Initial dose: 18 mg once a day; Maximum dose: 54 mg once a day.</p> <p>Patients taking methylphenidate: dosing is based on current dosage and clinical judgment; give dose in the morning.</p>	May increase daily dose by 18 mg at weekly intervals. Give dose in the morning. Consult prescribing information for conversion from methylphenidate.	Yes
methylphenidate ER (Concerta)‡	ADHD	13 to 17 years old	<p>Patients naive to methylphenidate: Initial dose: 18 mg once a day; Maximum dose: 72 mg once a day.</p> <p>Patients taking methylphenidate: dosing is based on current dosage and clinical judgment.</p>	May increase daily dose by 18 mg at weekly intervals. Give dose in the morning. Maximum dose should not exceed 2 mg per kg per day. Consult prescribing information for conversion from methylphenidate.	Yes
methylphenidate ER (Metadate CD®)†[18]	ADHD	6 to 15 years old	<p>Initial dose: 20 mg once a day; Maximum dose: 60 mg once a day</p>	May increase daily dose by 10 mg to 20 mg at weekly intervals. Give dose in the morning before breakfast.	Yes
methylphenidate ER (Metadate ER®)‡[19]	ADHD	6 years old and older	<p>Daily dose should be initiated in small doses; the 8-hour dosage should correspond to the titrated 8-hour dosage of the methylphenidate IR formulation.</p> <p>Maximum dose: 60 mg once a day</p>	May increase daily dose at weekly intervals. Discontinue if improvement is not noted after 1 month.	Yes

Medication	Indication	Age or Weight	Dosing Information	Other Information	Generic Availability
methylphenidate ER (Ritalin LA®)†[20]	ADHD	6 to 12 years old	Initial dose: 20 mg once a day; Maximum dose: 60 mg once a day in the morning	May initiate treatment with 10 mg once a day based on clinical judgment; may increase daily dose by 10 mg at weekly intervals.	Yes
methylphenidate ER oral suspension (Quillivant[™] XR)[21]	ADHD	6 years old and older	Initial dose: 20 mg once a day; Maximum dose: 60 mg once a day	May increase daily dose by 10 mg to 20 mg at weekly intervals. Give dose in the morning.	No
methylphenidate SR‡[22]	ADHD	6 years old and older	Daily dose should be initiated in small doses; the 8-hour dosage should correspond to the titrated 8-hour dosage of the methylphenidate IR formulation. Maximum dose: 60 mg once a day	May increase daily dose at weekly intervals; methylphenidate SR tablets have a duration of action of approximately 8 hours. Discontinue if improvement is not noted after 1 month.	Yes
methylphenidate transdermal patch[23]	ADHD	6 to 17 years old	Patients naive to methylphenidate or converting from another formulation of methylphenidate: Initial dose: 10 mg once a day. Patients taking methylphenidate: dosing is based on current dosage and clinical judgment.	Patch should be applied to the hip area 2 hours before an effect is needed and should be removed 9 hours after application; dose titration, final dosage, and wear-time should be individualized.	No

ADHD = attention-deficit/hyperactivity disorder LA = long-acting SR = sustained-release XR or ER = extended-release

* An additional one or two doses may be given at 4 hour to 6 hour intervals. When possible, interrupt administration to assess behavioral symptoms and need for continued therapy.

† Capsules may be swallowed whole or may be opened and the contents sprinkled on applesauce.

‡ Tablets or capsules must be swallowed whole. Do not chew, crush, or divide.

§ Capsules may be swallowed whole or may be opened and dissolved in a glass of water.

To see the electronic version of this dosing table and the other products included in the “Stimulants and Related Medications” Toolkit, visit the Medicaid Program Integrity Education page at <https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Pharmacy-Education-Materials/pharmacy-ed-materials.html> on the Centers for Medicare & Medicaid Services (CMS) website.

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October 2015

This dosing table was prepared by the Education Medicaid Integrity Contractor for the CMS Medicaid Program Integrity Education (MPIE). For more information on the MPIE, visit <https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Pharmacy-Education-Materials/pharmacy-ed-materials.html> on the CMS website or scan the Quick Response (QR) code on the right with your mobile device.

