ulating effect of dextroamphetamine is approximately twice that of amphetamine and about three or four times that of levamfetamine (no longer commercially available in the US). Levamfetamine is slightly more potent than dextroamphetamine in its cardiovascular effects. In healthy individuals, therapeutic doses of an amphetamine do not appreciably increase respiratory rate or minute volume, but when respiration is depressed by centrally acting drugs, an amphetamine stimulates respiration. The bronchodilating effect of amphetamines is less than that of ephedrine.

Amphetamines may superimpose psychic stimulation and excitability over fatigue, permitting a temporary increase in mental and physical activity. In healthy individuals, the drugs have not consistently facilitated improved mental performance and in some cases, nervousness produced by amphetamines is a distinct mental hazard. The most striking improvement caused by an amphetamine appears to occur when performance has been reduced by fatigue; such improvement may be due to alteration of unfavorable attitudes toward the task. Psychic stimulation produced by amphetamines is usually followed by depression and fatigue. Psychic effects depend on dose, mental state, and personality of the patient.

Theories of dysfunction in attention deficit hyperactivity disorder (ADHD) focus on the prefrontal cortex, which controls many executive functions (e.g., planning, impulse control). Stimulants have putative effects on central dopamine and norepinephrine pathways that are crucial in frontal lobe function. Stimulants act in the striatum by binding to the dopamine transporter, thus increasing synaptic dopamine. This effect may enhance functioning of executive control processes in the prefrontal cortex, ameliorating deficits in inhibitory control and working memory.

Amphetamines apparently produce an anorexigenic effect, leading to loss of weight. The mechanism of action of amphetamines on appetite suppression has not been elucidated. No primary effect on appetite has been demonstrated in humans and it has been postulated that anorexigenic effects of amphetamines are secondary to increased sympathetic activity resulting from amphetamine-induced release of norepinephrine and dopamine. In addition, amphetamines may cause a loss of acuity of smell and taste, which may contribute to the anorexigenic effect of the drugs. Amphetamines have little or no effect on the basal metabolic rate or on nitrogen excretion.

The anorexigenic effect of fenfluramine (no longer commercially available in the US) and dexfenfluramine (no longer commercially available in the US), amphetamine congeners, may have been associated with a different mechanism than those associated with amphetamines since the drugs appeared to stimulate release of serotonin (5-HT) at synapses and selectively inhibit the reuptake of serotonin at the presynaptic serotoninergic nerve endings, which may have resulted in increased postsynaptic concentrations of serotonin in the CNS. In the past, it has been suggested that combined therapy with fenfluramine and phentermine (an amphetamine congener that inhibits uptake of norepinephrine and dopamine) may provide complementary anorexigenic effects; therefore, such combined therapy has been used in the management of obesity. However, because of accumulated data on adverse effects associated with the drugs, fenfluramine hydrochloride (Pondimin®) and its dextrorotatory isomer dexfenfluramine hydrochloride (Redux®) were withdrawn from the US market in 1997. (See Cautions.)

Pharmacokinetics

Amphetamines are readily absorbed from the GI tract and effects persist for 4–24 hours. Amphetamines are distributed into most body tissues with high concentrations occurring in the brain and CSF.

Amphetamine appears in the urine within about 3 hours following oral administration. Urinary excretion of the amphetamines is pH-dependent and excretion is enhanced in acidic urine. Following oral administration of racemic amphetamine to humans, approximately equal amounts of both isomers were excreted during the first 12 hours; after the first 12 hours, a continually decreasing proportion of the *d*-isomer was excreted. Following oral administration of a 70-mg radiolabeled dose of lisdexamfetamine (a prodrug of dextroamphetamine), 96% of the dose was recovered in the urine; of the recovered radioactivity, 42% of the dose was related to amphetamine, 25% to hippuric acid, and 2% to the parent drug. Dextroamphetamine and levamfetamine (no longer commercially available in the US) appear to have different metabolic fates, but the relationship between the fate of the drugs and their pharmacologic activity has not been determined. There are some data to indicate stereospecific metabolism of amphetamine and its isomers, but stereospecific urinary excretion appears unlikely.

Chemistry

Amphetamine is *d,l*-α-methylphenethylamine, an adrenergic agent of the phenylisopropylamine type. The levo- and dextroisomers, racemic amphetamine, and the salts of the isomers and of racemic amphetamine are used in medical practice. Amphetamine is a noncatechol, sympathomimetic amine and has a greater CNS stimulant activity than epinephrine and other catecholamines. Lisdexamfetamine dimesylate is a prodrug and has little, if any, pharmacologic activity until converted to dextroamphetamine by first-pass intestinal and/or hepatic metabolism.

Inactivation of sympathomimetic noncatecholamines largely depends on breakdown by monoamine oxidase and since substitution of an alkyl group for hydrogen on the α-carbon atom blocks enzymatic inactivation of the amino group, the duration of action of noncatecholamines (but not of catecholamines, which are inactivated largely by a different mechanism) is prolonged by α-substitution. The absence of a hydroxyl group on the aromatic ring of amphetamine reduces inactivation of the drug in the GI tract and the amphetamines are active following oral administration.

Amphetamines are subject to control under the Federal Controlled Substances Act of 1970.

For further information on the chemistry, pharmacology, pharmacokinetics, uses, cautions, drug interactions, and dosage and administration of amphetamines, see the individual monographs in 28:20.04.

†Use is not currently included in the labeling approved by the US Food and Drug Administration

Amphetamine

■ Amphetamine is a noncatechol, sympathomimetic amine with CNS-stimulating activity.

Uses

Amphetamine sulfate and amphetamine aspartate in fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate are used in the treatment of narcolepsy and as adjuncts to psychological, educational, social, and other remedial measures in the treatment of attention deficit hyperactivity disorder (ADHD).

■ Narcolepsy and Attention Deficit Hyperactivity Disorder

Amphetamine sulfate and amphetamine aspartate in fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate are used in the treatment of narcolepsy and as adjuncts to psychological, educational, social, and other remedial measures in the treatment of ADHD (hyperkinetic disorder, hyperkinetic syndrome of childhood, minimal brain dysfunction) in children, adolescents, and adults.

ADHD usually is characterized by developmentally inappropriate symptoms (e.g., moderate to severe distractibility, short attention span, hyperactivity, emotional lability, impulsivity). The final diagnosis of this disorder should not be made if these symptoms are of only comparatively recent origin. Nonlocalizing (soft) neurologic signs, learning disability, and abnormal EEG may or may not be present, and a diagnosis of CNS dysfunction may or may not be warranted. Drug therapy is not indicated in all children with ADHD, and such therapy should be considered only after a complete evaluation including medical history has been performed. The decision to use amphetamines should depend on the age of the child and the clinician's assessment of the severity and duration of symptoms and should not depend solely on one or more behavioral characteristics. When symptoms of ADHD are associated with acute stress reactions, use of amphetamines usually is not recommended. For a more detailed discussion on the management of ADHD, including the use of stimulants such as amphetamine, see Uses: Attention Deficit Hyperactivity Disorder, in Methylphenidate 28:20.92.

Dosage and Administration

■ **Administration** Amphetamine sulfate and amphetamine aspartate in fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate are administered orally. The commercially available extended-release capsules containing amphetamine sulfate and amphetamine aspartate in fixed-combination with dextroamphetamine saccharate and dextroamphetamine sulfate (Adderall® XR) may be swallowed intact with or without food or the entire contents of a capsule(s) may be sprinkled on a small amount of applesauce immediately prior to administration; subdividing the contents of a capsule is not recommended. The pellets contained in the capsules should not be chewed or crushed, and the sprinkle/food mixture must not be stored for use at a later time.

The initial dose of amphetamines (as conventional tablets or extended-release capsules) should be given on awakening; when amphetamines are administered as conventional tablets in divided doses (2 or 3), additional doses are given at intervals of 4–6 hours. Because of the potential for insomnia, administration of conventional tablets in the late evening or extended-release capsules in the afternoon should be avoided.

■ **Dosage** Dosage of amphetamines should be adjusted according to individual response and tolerance; the smallest dose required to produce the desired response should always be used.

Narcolepsy In the treatment of narcolepsy, the usual total dosage of amphetamines given in fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate is 5–60 mg daily, depending upon the patient's age and response, usually given in divided doses. In patients 12 years of age and older, the initial dosage is 10 mg daily; daily dosage is increased by 10 mg at weekly intervals until the optimum response is attained. Although narcolepsy seldom occurs in children younger than 12 years of age, such children also may receive dextroamphetamine alone. In patients 6–12 years of age, the recommended initial dosage is 5 mg daily; daily dosage is increased by 5 mg at

weekly intervals until optimum response is attained. When intolerable adverse effects (e.g., insomnia, anorexia) occur, dosage should be reduced.

Attention Deficit Hyperactivity Disorder As an adjunct in the treatment of attention deficit hyperactivity disorder (ADHD) in children 6 years of age and older, the initial total dosage of amphetamines given in conventional fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate is 5 mg once or twice daily; the daily dosage is increased by 5 mg at weekly intervals until the optimum response is attained. Total daily dosage rarely should exceed 40 mg. In children 3–5 years of age, the initial dosage of amphetamines given in conventional fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate is 2.5 mg daily; the daily dosage is increased by 2.5 mg at weekly intervals until the optimum response is attained. When amphetamines are administered as conventional tablets in divided doses (2 or 3), additional doses are given at intervals of 4–6 hours.

Alternatively, in patients who are receiving drug therapy for ADHD for the first time or are being switched from therapy with another stimulant, amphetamine therapy may be initiated with extended-release capsules containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate in fixed combination (Adderall® XR). In children 6–12 years of age, the initial dosage of amphetamines as extended-release capsules (Adderall® XR) is 10 mg once daily; daily dosage may be increased in increments of 5 or 10 mg at weekly intervals to a maximum dosage of 30 mg daily. Treatment may be initiated with a dosage of 5 mg once daily when, in the opinion of the clinician, a lower initial dosage is appropriate. In adolescents 13–17 years of age, the initial dosage of amphetamines as extended-release capsules (Adderall® XR) is 10 mg once daily. Dosage may be increased to 20 mg once daily after 1 week if symptoms are not adequately controlled. In adults who are receiving drug therapy for ADHD for the first time or are being switched from therapy with another drug, the recommended dosage of amphetamines as extended-release capsules (Adderall XR®) is 20 mg once daily. Although dosages of up to 60 mg daily (as extended-release capsules) have been used in adolescents 13–17 years of age and adults in clinical studies, there is no evidence that dosages exceeding 20 mg daily provide any additional benefit in these patients. When switching from conventional tablets (Adderall®) to extended-release capsules (Adderall® XR), the total daily dosage of amphetamines may remain the same but should be given once daily.

When possible, therapy should be interrupted occasionally to determine if there is a recurrence of behavioral symptoms sufficient to require continued treatment. Long-term use of conventional tablets or long-term use of extended-release capsules (i.e., more than 3 weeks in children or more than 4 weeks in adolescents or adults) has not been studied systematically. If conventional tablets or extended-release capsules are used for extended periods, the usefulness of the drug should be reevaluated periodically.

Chemistry and Stability

■ **Chemistry** Amphetamine, *d,l*-α-methylphenethylamine, occurs as a colorless, mobile liquid with an amine odor and is sparingly soluble in water (1:50) and soluble in alcohol. The base is volatile at room temperature and has been used as an inhalant but is no longer commercially available in the US. Amphetamine sulfate occurs as a white, odorless crystalline powder and has a slightly bitter taste. Amphetamine sulfate is freely soluble in water (1:9) and slightly soluble in alcohol (about 1:500). Amphetamine aspartate and amphetamine sulfate currently are commercially available in the US only as fixed-combination preparations containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate.

■ **Stability** The fixed-combination conventional tablets or extended-release capsules containing amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, and dextroamphetamine sulfate should be stored in tight, light-resistant containers at 25°C but may be exposed to temperatures ranging from 15–30°C.

For further information on chemistry, pharmacology, pharmacokinetics, uses, cautions, chronic toxicity, acute toxicity, and dosage and administration of amphetamine and amphetamine sulfate, see the Amphetamines General Statement 28:20.04.

Preparations

Amphetamine sulfate preparations are subject to control under the Federal Controlled Substances Act of 1970 as schedule II (C-II) drugs.

Excipients in commercially available drug preparations may have clinically important effects in some individuals; consult specific product labeling for details.

Amphetamine Sulfate Combinations

Oral		
Capsules, extended-release	5 mg total amphetamine (as 1.25 mg, with Amphetamine Aspartate 1.25 mg, Dextroamphetamine Saccharate 1.25 mg, and Dextroamphetamine Sulfate 1.25 mg)	**Adderall® XR** (C-II), Shire
	10 mg total amphetamine (as 2.5 mg, with Amphetamine Aspartate 2.5 mg, Dextroamphetamine Saccharate 2.5 mg, and Dextroamphetamine Sulfate 2.5 mg)	**Adderall® XR** (C-II), Shire
	15 mg total amphetamine (as 3.75 mg, with Amphetamine Aspartate 3.75 mg, Dextroamphetamine Saccharate 3.75 mg, and Dextroamphetamine Sulfate 3.75 mg)	**Adderall® XR** (C-II), Shire
	20 mg total amphetamine (as 5 mg, with Amphetamine Aspartate 5 mg, Dextroamphetamine Saccharate 5 mg, and Dextroamphetamine Sulfate 5 mg)	**Adderall® XR** (C-II), Shire
	25 mg total amphetamine (as 6.25 mg, with Amphetamine Aspartate 6.25 mg, Dextroamphetamine Saccharate 6.25 mg, and Dextroamphetamine Sulfate 6.25 mg)	**Adderall® XR** (C-II), Shire
	30 mg total amphetamine (as 7.5 mg, with Amphetamine Aspartate 7.5 mg, Dextroamphetamine Saccharate 7.5 mg, and Dextroamphetamine Sulfate 7.5 mg)	**Adderall® XR** (C-II), Shire
Tablets	5 mg total amphetamine (as 1.25 mg, with Amphetamine Aspartate 1.25 mg, Dextroamphetamine Saccharate 1.25 mg, and Dextroamphetamine Sulfate 1.25 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)
	7.5 mg total amphetamine (as 1.875 mg, with Amphetamine Aspartate 1.875 mg, Dextroamphetamine Saccharate 1.875 mg, and Dextroamphetamine Sulfate 1.875 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)
	10 mg total amphetamine (as 2.5 mg, with Amphetamine Aspartate 2.5 mg, Dextroamphetamine Saccharate 2.5 mg, and Dextroamphetamine Sulfate 2.5 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)
	12.5 mg total amphetamine (as 3.125 mg, with Amphetamine Aspartate 3.125 mg, Dextroamphetamine Saccharate 3.125 mg, and Dextroamphetamine Sulfate 3.125 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)
	15 mg total amphetamine (as 3.75 mg, with Amphetamine Aspartate 3.75 mg, Dextroamphetamine Saccharate 3.75 mg, and Dextroamphetamine Sulfate 3.75 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)
	20 mg total amphetamine (as 5 mg, with Amphetamine Aspartate 5 mg, Dextroamphetamine Saccharate 5 mg, and Dextroamphetamine Sulfate 5 mg)*	**Adderall®** (C-II; double-scored), Shire **Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets** (C-II; double-scored)

30 mg total amphetamine (as 7.5 mg, with Amphetamine Aspartate 7.5 mg, Dextroamphetamine Saccharate 7.5 mg, and Dextroamphetamine Sulfate 7.5 mg)*	**Adderall** (C-II; double-scored), Shire
	Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate, and Amphetamine Sulfate Tablets (C-II; double-scored)

*available from one or more manufacturer, distributor, and/or repackager by generic (nonproprietary) name

Dextroamphetamine

■ Dextroamphetamine is the dextrorotatory isomer of amphetamine.

Uses

Dextroamphetamine sulfate alone and in fixed-combination preparations with dextroamphetamine saccharate, amphetamine aspartate, and amphetamine sulfate is used in the treatment of narcolepsy and as an adjunct to psychological, educational, social, and other remedial measures in the treatment of attention deficit hyperactivity disorder (ADHD).

■ **Narcolepsy and Attention Deficit Hyperactivity Disorder** Dextroamphetamine sulfate alone and in fixed-combination preparations with dextroamphetamine saccharate, amphetamine aspartate, and amphetamine sulfate is used in the treatment of narcolepsy and as an adjunct to psychological, educational, social, and other remedial measures in the treatment of ADHD (hyperkinetic disorder, hyperkinetic syndrome of childhood, minimal brain dysfunction) in children, adolescents, and adults.

ADHD usually is characterized by developmentally inappropriate symptoms (e.g., moderate to severe distractibility, short attention span, hyperactivity, emotional lability, impulsivity). The final diagnosis of this disorder should not be made if these symptoms are of only comparatively recent origin. Nonlocalizing (soft) neurologic signs, learning disability, and abnormal EEG may or may not be present, and a diagnosis of CNS dysfunction may or may not be warranted. Drug therapy is not indicated in all children with ADHD, and such therapy should be considered only after a complete evaluation including medical history has been performed. The decision to use amphetamines should depend on the age of the child and the clinician's assessment of the severity and duration of symptoms and should not depend solely on one or more behavioral characteristics. When symptoms of ADHD are associated with acute stress reactions, use of amphetamines usually is not recommended. For a more detailed discussion on the management of ADHD, including the use of stimulants such as dextroamphetamine, see Uses: Attention Deficit Hyperactivity Disorder, in Methylphenidate 28:20.92.

Dosage and Administration

■ **Administration** Preparations containing dextroamphetamine sulfate are administered orally. The commercially available extended-release capsules containing dextroamphetamine sulfate and dextroamphetamine saccharate in fixed-combination with amphetamine sulfate and amphetamine aspartate (Adderall XR®) may be swallowed intact with or without food or the entire contents of a capsule(s) may be sprinkled on a small amount of applesauce immediately prior to administration; subdividing the contents of a capsule is not recommended. The pellets contained in the capsules should not be chewed or crushed, and the sprinkle/food mixture must not be stored for use at a later time.

The initial dose of dextroamphetamine sulfate (alone or in fixed-combination preparations) is given on awakening; when the drug is given as conventional (short-acting) tablets in divided doses (2 or 3), additional doses are given at intervals of 4–6 hours. Because of the potential for insomnia, administration of dextroamphetamine sulfate conventional tablets (Dexedrine®), dextroamphetamine sulfate extended-release capsules (Dexedrine® Spansules®), or fixed-combination conventional tablets (Adderall®) in the late evening or administration of fixed-combination extended-release capsules (Adderall XR®) in the afternoon should be avoided.

■ **Dosage** Dosage of dextroamphetamines should be adjusted according to individual response and tolerance; the smallest dose required to produce the desired response should always be used.

Narcolepsy In the treatment of narcolepsy, the usual dosage of dextroamphetamine sulfate given alone or the total dosage of amphetamines given in fixed-combination preparations containing dextroamphetamine sulfate, dextroamphetamine saccharate, amphetamine aspartate, and amphetamine sulfate is 5–60 mg daily, depending upon the patient's age and response, usually given in divided doses. In patients 12 years of age and older, the initial dosage is 10 mg daily; daily dosage is increased by 10 mg at weekly intervals until the optimum response is attained. Although narcolepsy seldom occurs in children younger than 12 years of age, in pediatric patients 6–12 years of age, the recommended initial dosage of dextroamphetamine sulfate is 5 mg daily; daily dosage is increased by 5 mg at weekly intervals until the optimum response is attained. When intolerable adverse effects occur (e.g., insomnia, anorexia), dosage should be reduced. Dextroamphetamine sulfate extended-release capsules may be used for once-daily dosing whenever appropriate.

Attention Deficit Hyperactivity Disorder Dextroamphetamine sulfate dosage for the treatment of attention deficit hyperactivity disorder (ADHD) should be individualized based on patient response and tolerance. The first dosage that produces an observable response may not be the optimum dosage to improve function, and titration to higher dosages should continue in an attempt to achieve a better response. Such a strategy may require subsequent lowering of dosage when higher dosages produce adverse effects or no further clinical improvement. The best dosage for a given patient is the one that provides optimum therapeutic effects with minimal adverse effects. Dosing schedules also may vary, although there currently are no consistent controlled studies comparing alternative dosing schedules. Patients who require relief only during school may respond adequately to a 5-day (i.e., school day) regimen while those requiring relief at home and school may need a daily regimen throughout the week.

As an adjunct in the treatment of ADHD in children 6 years of age and older, the initial dosage of dextroamphetamine sulfate given in conventional (short-acting) preparations is 5 mg once or twice daily; daily dosage is increased by 5 mg at weekly intervals until the optimum response is attained. The usual dosage range is 5–15 mg twice daily or 5–10 mg 3 times daily. Total daily dosage rarely should exceed 40 mg. In children 3–5 years of age, the initial daily dosage is 2.5 mg; daily dosage is increased by 2.5 mg at weekly intervals until the optimum response is attained. When the drug is administered as conventional tablets in divided doses (2 or 3), additional doses are given at intervals of 4–6 hours. Dextroamphetamine sulfate extended-release capsules can be substituted for their respective conventional short-acting preparations if less frequent daily dosing is desirable.

Dextroamphetamine sulfate in fixed combination with other amphetamines (dextroamphetamine sulfate, dextroamphetamine saccharate, amphetamine aspartate, and amphetamine sulfate) also is used as an adjunct in the treatment of ADHD in children 6 years of age and older; the initial total dosage of amphetamines is 5 mg once or twice daily. The daily dosage is increased by 5 mg at weekly intervals until the optimum response is attained; total daily dosage rarely should exceed 40 mg. In children 3–5 years of age, the initial daily dosage is 2.5 mg; daily dosage is increased by 2.5 mg at weekly intervals until the optimum response is attained. The manufacturer recommends that the initial dose of dextroamphetamine sulfate in fixed combination with other amphetamines be given on awakening; additional doses (1 or 2) are given at intervals of 4–6 hours. The usual dosage for intermediate-acting preparations (e.g., Dexedrine® Spansules®, Adderall®) in children 6 years of age and older is 5–30 mg once daily or 5–15 mg twice daily.

Alternatively, in patients who are receiving drug therapy for ADHD for the first time or are being switched from therapy with another stimulant, dextroamphetamine therapy may be initiated with extended-release capsules containing dextroamphetamine sulfate in fixed-combination with dextroamphetamine saccharate, amphetamine aspartate, and amphetamine sulfate (Adderall XR®). In children 6–12 years of age, the initial dosage of total amphetamines as fixed-combination extended-release capsules (Adderall XR®) is 10 mg once daily; daily dosage may be increased in increments of 5 or 10 mg at weekly intervals to a maximum dosage of 30 mg daily. Treatment may be initiated with a dosage of 5 mg once daily when, in the opinion of the clinician, a lower initial dosage is appropriate. The usual dosage for such longer-acting preparations (e.g., Adderall XR®) is 10–30 mg daily. In adolescents 13–17 years of age, the initial dosage of total amphetamines as fixed-combination extended-release capsules (Adderall XR®) is 10 mg once daily. Dosage may be increased to 20 mg once daily after 1 week if symptoms are not adequately controlled. In adults who are receiving drug therapy for ADHD for the first time or are being switched from therapy with another drug, the recommended dosage of amphetamines as fixed-combination extended-release capsules (Adderall XR®) is 20 mg once daily. Although dosages of up to 60 mg daily (as fixed-combination extended-release capsules) have been used in adolescents 13–17 years of age and adults in clinical studies, there is no evidence that dosages exceeding 20 mg daily provide any additional benefit in these patients. When switching from fixed-combination conventional tablets (Adderall®) to fixed-combination extended-release capsules (Adderall XR®), the total daily dosage of amphetamines may remain the same but should be given once daily.

When possible, therapy should be interrupted occasionally to determine if there is a recurrence of behavioral symptoms sufficient to require continued treatment. Long-term use of fixed-combination extended-release capsules (i.e., more than 3 weeks in children or more than 4 weeks in adolescents or adults) has not been studied systematically. If fixed-combination extended-release capsules are used for extended periods, the usefulness of the drug should be periodically reevaluated.

Cautions

Dextroamphetamine shares the toxic potentials of amphetamines, and the usual cautions, precautions, and contraindications of amphetamine therapy should be observed. (See Cautions in the Amphetamines General Statement 28:20.04.)

Some commercially available preparations of dextroamphetamine (e.g., DextroStat®, Dexedrine® tablets) contain the dye tartrazine (FD&C yellow No. 5), which may cause allergic reactions including bronchial asthma in susceptible individuals. Although the incidence of tartrazine sensitivity is low, it frequently occurs in patients who are sensitive to aspirin.