

**DEXMETHYLPHENIDATE HYDROCHLORIDE- dexamethylphenidate hydrochloride tablet**  
**Sun Pharmaceutical Industries, Inc.**

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**HIGHLIGHTS OF PRESCRIBING INFORMATION**

These highlights do not include all the information needed to use DEXMETHYLPHENIDATE HYDROCHLORIDE TABLETS safely and effectively. See full prescribing information for DEXMETHYLPHENIDATE HYDROCHLORIDE TABLETS.

DEXMETHYLPHENIDATE HYDROCHLORIDE tablets, for oral use, CII  
Initial U.S. Approval: 2001

**WARNING: ABUSE AND DEPENDENCE**

*See full prescribing information for complete boxed warning.*

- CNS stimulants, including dexamethylphenidate hydrochloride tablets, other methylphenidate-containing products, and amphetamines, have a high potential for abuse and dependence (5.1, 9.2, 9.3).
- Assess the risk of abuse prior to prescribing, and monitor for signs of abuse and dependence while on therapy (5.1, 9.2).

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**RECENT MAJOR CHANGES**

Boxed Warning	01/2019
Contraindications (4)	01/2019
Warnings and Precautions (5)	01/2019

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**INDICATIONS AND USAGE**

Dexamethylphenidate hydrochloride tablets are a central nervous system (CNS) stimulant indicated for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) (1).

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**DOSAGE AND ADMINISTRATION**

- Administer orally twice daily, 4 hours apart with or without food (2)
- For patients new to methylphenidate: Recommend starting dose of 5 mg once daily (2.5 mg twice daily) (2.2)
- For patients currently taking methylphenidate: Initiate dexamethylphenidate hydrochloride tablets therapy with half (1/2) the current total daily dose of methylphenidate (2.3)
- Titrate weekly in increments of 2.5 to 5 mg to a maximum of 20 mg/day (10 mg twice daily) (2.2)

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**DOSAGE FORMS AND STRENGTHS**

Tablets: 2.5, 5, and 10 mg (3)

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**CONTRAINDICATIONS**

- Known hypersensitivity to methylphenidate or other components of dexamethylphenidate hydrochloride tablets (4)
- Concurrent treatment with a monoamine oxidase inhibitor (MAOI), or use of an MAOI within the preceding 14 days (4)

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**WARNINGS AND PRECAUTIONS**

- *Serious Cardiovascular Events:* Sudden death has been reported in association with CNS stimulant treatment at usual doses in pediatric patients with structural cardiac abnormalities or other serious heart problems. In adults, sudden death, stroke, and myocardial infarction have been reported. Avoid use in patients with known structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, arrhythmias, or coronary artery disease (5.2).
- *Blood Pressure and Heart Rate Increases:* Monitor blood pressure and pulse. Consider the benefits and risk in patients for whom an increase in blood pressure or heart rate would be problematic (5.3).
- *Psychotic Adverse Reactions:* Use of stimulants may cause psychotic or manic symptoms in patients with no prior history, or exacerbation of symptoms in patients with pre-existing psychiatric illness. Evaluate for pre-existing psychotic or bipolar disorder prior to dexamethylphenidate hydrochloride tablets use (5.4).
- *Priapism:* Cases of painful and prolonged penile erections and priapism have been reported with methylphenidate

products. Immediate medical attention should be sought if signs or symptoms of prolonged penile erections or priapism are observed (5.5).

- *Peripheral Vasculopathy, including Raynaud's Phenomenon*: Stimulants used to treat ADHD are associated with peripheral vasculopathy, including Raynaud's phenomenon. Careful observation for digital changes is necessary during treatment with ADHD stimulants (5.6).
- *Long-Term Suppression of Growth*: Monitor height and weight at appropriate intervals in the pediatric population (5.7).

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#### ADVERSE REACTIONS

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The most common adverse reactions (greater than or equal to 5% and twice the rate of placebo) in pediatric patients 6 to 17 years were abdominal pain, fever, nausea, and anorexia (6.1).

**To report SUSPECTED ADVERSE REACTIONS, contact Sun Pharmaceutical Industries, Inc. at 1-800-406-7984 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).**

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#### DRUG INTERACTIONS

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- Antihypertensive Drugs: Monitor blood pressure. Adjust dosage of antihypertensive drug as needed (7.1)
- Halogenated Anesthetics: Avoid use of dexmethylphenidate hydrochloride tablets on the day of surgery if halogenated anesthetics will be used (7.1)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide.

Revised: 10/2020

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**FULL PRESCRIBING INFORMATION**

**WARNING: ABUSE AND DEPENDENCE**

CNS stimulants, including dexamethylphenidate hydrochloride tablets, other methylphenidate-containing products, and amphetamines, have a high potential for abuse and dependence. Assess the risk of abuse prior to prescribing, and monitor for signs of abuse and dependence while on therapy [see Warnings and Precautions (5.1), Drug Abuse and Dependence (9.2, 9.3)].

**1 INDICATIONS AND USAGE**

Dexamethylphenidate hydrochloride tablets are indicated for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) [see Clinical Studies (14)].

**2 DOSAGE AND ADMINISTRATION**

**2.1 Pre-treatment Screening**

Prior to treating pediatric patients and adults with central nervous system (CNS) stimulants, including dexamethylphenidate hydrochloride tablets, assess for the presence of cardiac disease (i.e., perform a careful history, family history of sudden death or ventricular arrhythmia, and physical exam) [see Warnings and Precautions (5.2)].

Assess the risk of abuse prior to prescribing, and monitor for signs of abuse and dependence while on therapy. Maintain careful prescription records, educate patients about abuse, monitor for signs of abuse and overdose, and periodically re-evaluate the need for dexamethylphenidate hydrochloride tablets use [see Boxed Warning, Warnings and Precautions (5.1), Drug Abuse and Dependence (9)].

**2.2 Pediatric Patients with ADHD**

Patients New to Methylphenidate

The recommended starting dose of dexamethylphenidate hydrochloride tablets for pediatric patients who are not currently taking racemic methylphenidate, or for patients who are on stimulants other than methylphenidate, is 5 mg daily (2.5 mg twice daily) with or without food.

Patients Currently on Methylphenidate

The recommended starting dose of dexamethylphenidate hydrochloride tablets for pediatric patients

currently using methylphenidate is half the total daily dose of racemic methylphenidate.

### Titration Schedule

The dose may be titrated weekly in increments of 2.5 to 5 mg to a maximum of 20 mg daily (10 mg twice daily). The dose should be individualized according to the needs and response of the patient.

### Maintenance/Extended Treatment

Pharmacological treatment of ADHD may be needed for extended periods. Periodically reevaluate the long-term use of dexamethylphenidate hydrochloride tablets and adjust dosage as needed.

## **2.3 Administration Instructions**

Dexamethylphenidate hydrochloride tablets are administered orally twice daily, at least 4 hours apart.

## **2.4 Dose Reduction and Discontinuation**

If paradoxical aggravation of symptoms or other adverse reactions occur, reduce the dosage, or if necessary, discontinue dexamethylphenidate hydrochloride tablets. If improvement is not observed after appropriate dosage adjustment over a one-month period, the drug should be discontinued.

## **3 DOSAGE FORMS AND STRENGTHS**

Dexamethylphenidate hydrochloride tablets are available in 2.5 mg, 5 mg, and 10 mg tablets.

- **2.5 mg:** Light blue colored, round, biconvex, beveled edge, uncoated, tablets debossed '376' on one side and 'S' above '2.5' on the other side.
- **5 mg:** Light yellow colored, round, biconvex, beveled edge, uncoated, tablets debossed '378' on one side and 'S' above '5' on the other side.
- **10 mg:** White, round, biconvex, beveled edge, uncoated, tablets debossed '379' on one side and 'S' above '10' on the other side.

## **4 CONTRAINDICATIONS**

- Hypersensitivity to methylphenidate or other components of dexamethylphenidate hydrochloride tablets. Hypersensitivity reactions such as angioedema and anaphylactic reactions have been reported in patients treated with methylphenidate [*see Adverse Reactions (6.1)*].
- Concomitant treatment with monoamine oxidase inhibitors (MAOIs), or within 14 days following discontinuation of treatment with an MOAI, because of the risk of hypertensive crises [*see Drug Interactions (7.1)*].

## **5 WARNINGS AND PRECAUTIONS**

### **5.1 Potential for Abuse and Dependence**

CNS stimulants, including dexamethylphenidate hydrochloride tablets, other methylphenidate-containing products, and amphetamines, have a high potential for abuse and dependence. Assess the risk of abuse prior to prescribing, and monitor for signs of abuse and dependence while on therapy [*see Boxed Warning, Drug Abuse and Dependence (9.2, 9.3)*].

### **5.2 Serious Cardiovascular Reactions**

Sudden death, stroke and myocardial infarction have been reported in adults with CNS stimulant treatment at recommended doses. Sudden death has been reported in pediatric patients with structural cardiac abnormalities and other serious heart problems taking CNS stimulants at recommended doses for

ADHD. Avoid use in patients with known serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, coronary artery disease, and other serious heart problems. Further evaluate patients who develop exertional chest pain, unexplained syncope, or arrhythmias during dexamethylphenidate hydrochloride tablets treatment.

### **5.3 Blood Pressure and Heart Rate Increases**

CNS stimulants cause an increase in blood pressure (mean increase approximately 2 to 4 mmHg) and heart rate (mean increase approximately 3 to 6 bpm). Individuals may have larger increases. Monitor all patients for hypertension and tachycardia.

### **5.4 Psychiatric Adverse Reactions**

#### Exacerbation of Preexisting Psychosis

CNS stimulants may exacerbate symptoms of behavior disturbance and thought disorder in patients with a preexisting psychotic disorder.

#### Induction of a Manic Episode in Patients with Bipolar Disorder

CNS stimulants may induce a manic or mixed mood episode in patients. Prior to initiating treatment, screen patients for risk factors for developing a manic episode (e.g., comorbid or history of depressive symptoms or a family history of suicide, bipolar disorder, or depression).

#### New Psychotic or Manic Symptoms

CNS stimulants, at recommended doses, may cause psychotic or manic symptoms (e.g., hallucinations, delusional thinking, or mania) in patients without a prior history of psychotic illness or mania. If such symptoms occur, consider discontinuing dexamethylphenidate hydrochloride tablets. In a pooled analysis of multiple short-term, placebo-controlled studies of CNS stimulants, psychotic or manic symptoms occurred in approximately 0.1% of CNS stimulant-treated patients, compared to 0 in placebo-treated patients.

### **5.5 Priapism**

Prolonged and painful erections, sometimes requiring surgical intervention, have been reported with methylphenidate products in both pediatric and adult patients. Priapism was not reported with drug initiation but developed after some time on the drug, often subsequent to an increase in dose. Priapism has also appeared during a period of drug withdrawal (drug holidays or during discontinuation). Patients who develop abnormally sustained or frequent and painful erections should seek immediate medical attention.

### **5.6 Peripheral Vasculopathy, including Raynaud's Phenomenon**

CNS stimulants, including dexamethylphenidate hydrochloride tablets, used to treat ADHD are associated with peripheral vasculopathy, including Raynaud's phenomenon. Signs and symptoms are usually intermittent and mild; however, very rare sequelae include digital ulceration and/or soft tissue breakdown. Effects of peripheral vasculopathy, including Raynaud's phenomenon, were observed in post-marketing reports at different times and at therapeutic doses in all age groups throughout the course of treatment. Signs and symptoms generally improve after reduction in dose or discontinuation of drug. Careful observation for digital changes is necessary during treatment with ADHD stimulants. Further clinical evaluation (e.g., rheumatology referral) may be appropriate for certain patients.

### **5.7 Long-Term Suppression of Growth**

CNS stimulants have been associated with weight loss and slowing of growth rate in pediatric patients. Careful follow-up of weight and height in patients ages 7 to 10 years who were randomized to either methylphenidate or non-medication treatment groups over 14 months, as well as in naturalistic subgroups of newly methylphenidate-treated and non-medication treated patients over 36 months (to the ages of 10 to 13 years), suggests that consistently medicated pediatric patients (i.e., treatment for 7 days per week throughout the year) have a temporary slowing in growth rate (on average, a total of about 2

cm less growth in height and 2.7 kg less growth in weight over 3 years), without evidence of growth rebound during this period of development.

Closely monitor growth (weight and height) in pediatric patients treated with CNS stimulants, including dexamethylphenidate hydrochloride tablets, and patients who are not growing or gaining height or weight as expected may need to have their treatment interrupted.

## 6 ADVERSE REACTIONS

The following are discussed in more detail in other sections of the labeling:

- Abuse and Dependence [see Boxed Warning, Warnings and Precautions (5.1), Drug Abuse and Dependence (9.2, 9.3)]
- Known hypersensitivity to methylphenidate or other ingredients of dexamethylphenidate hydrochloride tablets [see Contraindications (4)]
- Hypertensive crisis with Concomitant Use of Monoamine Oxidase Inhibitors [see Contraindications (4), Drug Interactions (7.1)]
- Serious Cardiovascular Reactions [see Warnings and Precautions (5.2)]
- Blood Pressure and Heart Rate Increases [see Warnings and Precautions (5.3)]
- Psychiatric Adverse Reactions [see Warnings and Precautions (5.4)]
- Priapism [see Warnings and Precautions (5.5)]
- Peripheral Vasculopathy, including Raynaud's phenomenon [see Warnings and Precautions (5.6)]
- Long-term Suppression of Growth [see Warnings and Precautions (5.7)]

### 6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

#### Clinical Trials Experience with Dexamethylphenidate Hydrochloride Tablets in Pediatric Patients with ADHD

The safety data in this section is based on data related to dexamethylphenidate hydrochloride tablets exposure during the premarketing development program in a total of 696 participants in clinical trials (684 patients, 12 healthy adult subjects). These participants received dexamethylphenidate hydrochloride tablets 5, 10, or 20 mg/day. The 684 ADHD patients (ages 6 to 17 years) were evaluated in 2 controlled clinical studies, 2 clinical pharmacology studies, and 2 open-label long-term safety studies.

*Most Common Adverse Reactions* (incidence of greater than or equal to 5% and at least twice placebo): abdominal pain, fever, anorexia, and nausea

**Adverse Reactions Leading to Discontinuation:** Overall, 50 of 684 (7.3%) pediatric patients treated with dexamethylphenidate hydrochloride tablets experienced an adverse reaction that resulted in discontinuation. The most common reasons for discontinuation were twitching (described as motor or vocal tics), anorexia, insomnia, and tachycardia (approximately 1% each).

Table 1 enumerates adverse reactions for two, placebo-controlled, parallel group studies in pediatric patients with ADHD taking dexamethylphenidate hydrochloride tablets doses of 5, 10, and 20 mg/day. The table includes only those reactions that occurred in patients treated with dexamethylphenidate hydrochloride tablets for which the incidence was at least 5% and twice the incidence among placebo-treated patients.

**Table 1: Common Adverse Reactions in Pediatric Patients (6 to 17 years of age) with ADHD\***

System Organ Class	Adverse Reactions	Dexamethylphenidate	Placebo
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		Hydrochloride Tablets (N = 79)	(N = 82)
Body as a Whole	Abdominal Pain	15%	6%
	Fever	5%	1%
Digestive System	Anorexia	6%	1%
	Nausea	9%	1%

\* ADHD: Attention Deficit Hyperactivity Disorder

## 6.2 Postmarketing Experience

The following additional adverse reactions have been identified during post-approval use of dexamethylphenidate. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

*Musculoskeletal:* rhabdomyolysis

*Immune System Disorders:* hypersensitivity reactions such as angioedema, anaphylactic reactions

### Adverse Reactions Reported with all Methylphenidate Hydrochloride and Dexamethylphenidate Hydrochloride Formulations

The following adverse reactions associated with the use of all methylphenidate hydrochloride and dexamethylphenidate hydrochloride formulations were identified in clinical trials, spontaneous reports, and literature. Because these reactions were reported voluntarily from a population of uncertain size, it is not always possible to estimate their frequency reliably or to establish a causal relationship to drug exposure.

*Infections and Infestations:* nasopharyngitis

*Blood and the Lymphatic System Disorders:* leukopenia, thrombocytopenia, anemia

*Immune System Disorders:* hypersensitivity reactions, including angioedema and anaphylaxis

*Metabolism and Nutrition Disorders:* decreased appetite, reduced weight gain, and suppression of growth during prolonged use in pediatric patients

*Psychiatric Disorders:* insomnia, anxiety, restlessness, agitation, psychosis (sometimes with visual and tactile hallucinations), depressed mood

*Nervous System Disorders:* headache, dizziness, tremor, dyskinesia including choreoathetoid movements, drowsiness, convulsions, cerebrovascular disorders (including vasculitis, cerebral hemorrhages and cerebrovascular accidents), serotonin syndrome in combination with serotonergic drugs

*Eye Disorders:* blurred vision, difficulties in visual accommodation

*Cardiac Disorders:* tachycardia, palpitations, increased blood pressure, arrhythmias, angina pectoris

*Respiratory, Thoracic and Mediastinal Disorders:* cough

*Gastrointestinal Disorders:* dry mouth, nausea, vomiting, abdominal pain, dyspepsia

*Hepatobiliary Disorders:* abnormal liver function, ranging from transaminase elevation to severe hepatic injury

*Skin and Subcutaneous Tissue Disorders:* hyperhidrosis, pruritus, urticaria, exfoliative dermatitis, scalp hair loss, erythema multiforme rash, thrombocytopenic purpura

*Musculoskeletal and Connective Tissue Disorders:* arthralgia, muscle cramps, rhabdomyolysis

*Investigations:* weight loss (adult ADHD patients)

### Additional Adverse Reactions Reported with Other Methylphenidate-Containing Products

The list below shows adverse reactions not listed with methylphenidate hydrochloride and dexmethylphenidate hydrochloride formulations [see *Adverse Reactions (6.2)*] that have been reported with other methylphenidate products based on clinical trials data and post-marketing spontaneous reports.

*Blood and Lymphatic Disorders:* pancytopenia

*Immune System Disorders:* hypersensitivity reactions such as auricular swelling

*Psychiatric Disorders:* affect lability, mania, disorientation, libido changes

*Nervous System Disorders:* migraine

*Eye Disorders:* diplopia, mydriasis

*Cardiac Disorders:* sudden cardiac death, myocardial infarction, bradycardia, extrasystole, supraventricular tachycardia, ventricular extrasystole

*Vascular Disorders:* peripheral coldness, Raynaud's phenomenon

*Respiratory, Thoracic and Mediastinal Disorders:* pharyngolaryngeal pain, dyspnea

*Gastrointestinal Disorders:* diarrhea, constipation

*Skin and Subcutaneous Tissue Disorders:* angioneurotic edema, erythema, fixed drug eruption

*Musculoskeletal, Connective Tissue and Bone Disorders:* myalgia, muscle twitching

*Renal and Urinary Disorders:* hematuria

*Reproductive System and Breast Disorders:* gynecomastia

*General disorders:* fatigue

*Urogenital disorders:* priapism

## 7 DRUG INTERACTIONS

### 7.1 Clinically Important Interactions with Dexmethylphenidate Hydrochloride Tablets

Table 2 presents clinically important drug interactions with dexmethylphenidate hydrochloride tablets.

**Table 2: Clinically Important Drug Interactions with Dexmethylphenidate Hydrochloride Tablets**

<b>Monoamine Oxidase Inhibitors (MAOI)</b>	
<i>Clinical Impact</i>	Concomitant use of MAOIs and CNS stimulants, including dexmethylphenidate hydrochloride tablets, can cause hypertensive crisis. Potential outcomes include death, stroke, myocardial infarction, aortic dissection, ophthalmological complications, eclampsia, pulmonary edema, and renal failure [see <i>Contraindications (4)</i> ].
<i>Intervention</i>	Concomitant use of dexmethylphenidate hydrochloride tablets MAOIs or within 14 days after discontinuing MAOI treatment is contraindicated.
<i>Examples</i>	selegiline, tranylcypromine, isocarboxazid, phenelzine, linezolid, methylene blue
<b>Antihypertensive Drugs</b>	
<i>Clinical Impact</i>	Dexmethylphenidate hydrochloride tablets may decrease the effectiveness of drugs used to treat hypertension [see <i>Warnings and Precautions (5.3)</i> ].
<i>Intervention</i>	Adjust the dosage of the antihypertensive drug as needed.
<i>Examples</i>	Potassium-sparing and thiazide diuretics, calcium channel blockers, angiotensin-converting-enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARBs), beta blockers, centrally acting alpha-2 receptor agonists
<b>Halogenated Anesthetics</b>	



<i>Clinical Impact</i>	Concomitant use of halogenated anesthetics and dexamethylphenidate hydrochloride tablets may increase the risk of sudden blood pressure and heart rate increase during surgery.
<i>Intervention</i>	Monitor blood pressure and avoid use of dexamethylphenidate hydrochloride tablets in patients being treated with anesthetics on the day of surgery.
<i>Examples</i>	halothane, isoflurane, enflurane, desflurane, sevoflurane

## 8 USE IN SPECIFIC POPULATIONS

### 8.1 Pregnancy

#### Pregnancy Exposure Registry

There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to ADHD medications, including dexamethylphenidate hydrochloride tablets, during pregnancy. Healthcare providers are encouraged to register patients by calling the National Pregnancy registry for ADHD medications at 1-866-961-2388 or visit <https://womensmentalhealth.org/adhd-medications/>.

#### Risk Summary

Dexamethylphenidate is the d-threo enantiomer of racemic methylphenidate. Published studies and postmarketing reports on methylphenidate use during pregnancy have not identified a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. There may be risks to the fetus associated with the use of CNS stimulants use during pregnancy (see Clinical Considerations). Embryo-fetal development studies in rats showed delayed fetal skeletal ossification at doses up to 5 times the maximum recommended human dose (MRHD) of 20 mg/day given to adults based on plasma levels. A decrease in pup weight in males was observed in a pre- and post-natal development study with oral administration of methylphenidate to rats throughout pregnancy and lactation at doses 5 times the MRHD of 20 mg/day given to adults based on plasma levels. Plasma levels in adults were comparatively similar to plasma levels in adolescents (see Data).

The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

#### Clinical Considerations

##### Fetal/Neonatal Adverse Reactions

CNS stimulants such as dexamethylphenidate hydrochloride tablets, can cause vasoconstriction and thereby decrease placental perfusion. No fetal and/or neonatal adverse reactions have been reported with the use of therapeutic doses of methylphenidate during pregnancy; however, premature delivery and low birth weight infants have been reported in amphetamine-dependent mothers.

#### Data

##### Animal Data

In embryo-fetal development studies conducted in rats and rabbits, dexamethylphenidate was administered orally at doses of up to 20 and 100 mg/kg/day, respectively, during the period of organogenesis. No evidence of malformations was found in either the rat or rabbit study; however, delayed fetal skeletal ossification was observed at the highest dose level in rats. When dexamethylphenidate was administered to rats throughout pregnancy and lactation at doses of up to 20 mg/kg/day, post-weaning body weight gain was decreased in male offspring at the highest dose, but no other effects on postnatal development were observed. At the highest doses tested, plasma levels (AUCs) of dexamethylphenidate in pregnant rats and rabbits were approximately 5 and 1 times, respectively, those in adults dosed with the MRHD of 20 mg/day.

Racemic methylphenidate has been shown to cause malformations (increased incidence of fetal spina bifida) in rabbits when given in doses of 200 mg/kg/day throughout organogenesis.

## **8.2 Lactation**

### Risk Summary

Dexmethylphenidate is the d-threo enantiomer of racemic methylphenidate. Limited published literature, based on milk sampling from seven mothers reports that methylphenidate is present in human milk, which resulted in infant doses of 0.16% to 0.7% of the maternal weight-adjusted dosage and a milk/plasma ratio ranging between 1.1 and 2.7. There are no reports of adverse effects on the breastfed infant and no effects on milk production. Long-term neurodevelopmental effects on infants from stimulant exposure are unknown.

The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for dexmethylphenidate hydrochloride tablets, and any potential adverse effects on the breastfed infant from dexmethylphenidate hydrochloride tablets or from the underlying maternal condition.

### Clinical Considerations

Monitor breastfeeding infants for adverse reactions, such as agitation, insomnia, anorexia, and reduced weight gain.

## **8.4 Pediatric Use**

The safety and effectiveness of dexmethylphenidate hydrochloride tablets have been established in pediatric patients ages 6 to 17 years in two adequate and well-controlled clinical trials [see *Clinical Studies (14)*].

The safety and effectiveness of dexmethylphenidate hydrochloride tablets in pediatric patients less than 6 years have not been established.

The long-term efficacy of dexmethylphenidate hydrochloride tablets in pediatric patients has not been established.

### Long Term Suppression of Growth

Growth should be monitored during treatment with stimulants, including dexmethylphenidate hydrochloride tablets. Pediatric patients who are not growing or gaining weight as expected may need to have their treatment interrupted [see *Warnings and Precautions (5.7)*].

### Juvenile Animal Toxicity Data

Rats treated with racemic methylphenidate early in the postnatal period through sexual maturation demonstrated a decrease in spontaneous locomotor activity in adulthood. A deficit in acquisition of a specific learning task was observed in females only. The doses at which these findings were observed are at least 6 times the MRHD of 60 mg/day given to children on a mg/m<sup>2</sup> basis.

In a study conducted in young rats, racemic methylphenidate was administered orally at doses of up to 100 mg/kg/day for 9 weeks, starting early in the postnatal period (postnatal Day 7) and continuing through sexual maturity (postnatal week 10). When these animals were tested as adults (postnatal Weeks 13 to 14), decreased spontaneous locomotor activity was observed in males and females previously treated with 50 mg/kg/day (approximately 4 times the MRHD of 60 mg of racemic methylphenidate given to children on a mg/m<sup>2</sup> basis) or greater, and a deficit in the acquisition of a specific learning task was seen in females exposed to the highest dose (8 times the MRHD given to children on a mg/m<sup>2</sup> basis). The no effect level for juvenile neurobehavioral development in rats was 5 mg/kg/day (approximately 0.5 times the MRHD given to children on a mg/m<sup>2</sup> basis). The clinical significance of the long-term behavioral effects observed in rats is unknown.

## **8.5 Geriatric Use**

Dexmethylphenidate hydrochloride tablets have not been studied in the geriatric population.

## **9 DRUG ABUSE AND DEPENDENCE**

### **9.1 Controlled Substance**

Dexmethylphenidate hydrochloride tablets contain dexmethylphenidate hydrochloride, a Schedule II controlled substance.

### **9.2 Abuse**

CNS stimulants, including dexmethylphenidate hydrochloride tablets, other methylphenidate-containing products, and amphetamines have a high potential for abuse. Abuse is characterized by impaired control over drug use despite harm, and craving.

Signs and symptoms of CNS stimulant abuse include increased heart rate, respiratory rate, blood pressure, and/or sweating, dilated pupils, hyperactivity, restlessness, insomnia, decreased appetite, loss of coordination, tremors, flushed skin, vomiting, and/or abdominal pain. Anxiety, psychosis, hostility, aggression, and suicidal or homicidal ideation have also been observed. Abusers of CNS stimulants may chew, snort, inject, or use other unapproved routes of administration which may result in overdose and death [*see Overdosage (10)*].

To reduce the abuse of CNS stimulants including dexmethylphenidate hydrochloride tablets, assess the risk of abuse prior to prescribing. After prescribing, keep careful prescription records, educate patients and their families about abuse and on proper storage and disposal of CNS stimulants [*see How Supplied/Storage and Handling (16)*], monitor for signs of abuse while on therapy, and re-evaluate the need for dexmethylphenidate hydrochloride tablets use.

### **9.3 Dependence**

#### Tolerance

Tolerance (a state of adaptation in which exposure to a drug results in a reduction of the drug's desired and/or undesired effects over time) can occur during chronic therapy with CNS stimulants, including dexmethylphenidate hydrochloride tablets.

#### Dependence

Physical dependence (which is manifested by a withdrawal syndrome produced by abrupt cessation, rapid dose reduction, or administration of an antagonist) can occur in patients treated with CNS stimulants including dexmethylphenidate hydrochloride tablets. Withdrawal symptoms after abrupt cessation following prolonged high-dosage administration of CNS stimulants include dysphoric mood; fatigue; vivid, unpleasant dreams; insomnia or hypersomnia; increased appetite; and psychomotor retardation or agitation.

## **10 OVERDOSAGE**

### Human Experience

Signs and symptoms of acute methylphenidate overdose, resulting principally from overstimulation of the CNS and from excessive sympathomimetic effects, may include the following: vomiting, agitation, tremors, hyperreflexia, muscle twitching, convulsions (may be followed by coma), euphoria, confusion, hallucinations, delirium, sweating, flushing, headache, hyperpyrexia, tachycardia, palpitations, cardiac arrhythmias, hypertension, mydriasis, and dryness of mucous membranes, and rhabdomyolysis.

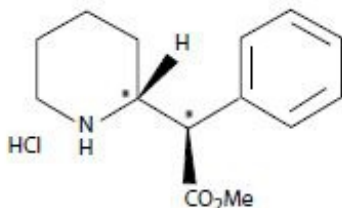
### Overdose Management

Consult with a Certified Poison Control Center (1-800-222-1222) for latest recommendations.

## **11 DESCRIPTION**

Dexmethylphenidate hydrochloride tablets contain dexmethylphenidate hydrochloride, a CNS stimulant. Dexmethylphenidate hydrochloride is the *d-threo* enantiomer of racemic methylphenidate hydrochloride. Dexmethylphenidate hydrochloride tablets are available as 2.5 mg, 5 mg, and 10 mg strength tablets for oral administration.

Chemically, dexmethylphenidate hydrochloride is methyl  $\alpha$ -phenyl-2-piperidineacetate hydrochloride, (R,R')-(+)-. Its molecular formula is  $C_{14}H_{19}NO_2 \cdot HCl$ . Its structural formula is:



Note: \* = asymmetric carbon centers

Dexmethylphenidate hydrochloride is a white to off-white powder. Its solutions are acid to litmus. It is freely soluble in water and in methanol, soluble in alcohol, and slightly soluble in chloroform and in acetone. Its molecular weight is 269.77 g/mol.

**Inactive ingredients:** FD&C Blue No.1 aluminum lake (2.5 mg tablet), D&C Yellow Lake No. 10 aluminum lake (5 mg tablet). The 10 mg tablet contains no dye. Lactose monohydrate, magnesium stearate, sodium starch glycolate, talc.

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

Dexmethylphenidate hydrochloride is a central nervous system (CNS) stimulant. The mode of therapeutic action in ADHD is not known.

### 12.2 Pharmacodynamics

#### Pharmacodynamics

Dexmethylphenidate is the more pharmacologically active d-enantiomer of racemic methylphenidate. Methylphenidate blocks the reuptake of norepinephrine and dopamine into the presynaptic neuron and increase the release of these monoamines into the extraneuronal space.

#### Cardiac Electrophysiology

A formal QT study has not been conducted in patients taking dexmethylphenidate hydrochloride tablets; however, a large QT effect is not expected. At the recommended maximum total daily dosage of 40 mg, dexmethylphenidate hydrochloride extended-release capsules do not prolong the QTc interval to any clinically relevant extent.

### 12.3 Pharmacokinetics

#### Absorption

Dexmethylphenidate hydrochloride is readily absorbed following oral administration of dexmethylphenidate hydrochloride tablets. In patients with ADHD, plasma dexmethylphenidate concentrations increase rapidly, reaching a maximum in the fasted state at about 1 to 1.5 hours postdose. No differences in the pharmacokinetics of dexmethylphenidate hydrochloride tablets were noted following single and repeated twice daily dosing, thus indicating no significant drug accumulation in children with ADHD.

After single dose administration of dexmethylphenidate hydrochloride tablets to pediatric patients, dexmethylphenidate exposure ( $C_{max}$  and  $AUC_{0-inf}$ ) showed dose-proportional increase in the range of 2.5 mg to 10 mg. Comparable plasma dexmethylphenidate levels were achieved following single *dl*-*threo*-methylphenidate HCl doses given as capsules in twice the total mg amount (equimolar with respect to dexmethylphenidate hydrochloride tablets).

Approximately 90% of the dose is absorbed after oral administration of radiolabeled racemic methylphenidate. However, due to first pass metabolism the mean absolute bioavailability of dexmethylphenidate when administered in various formulations was 22% to 25%.

#### *Effect of Food*

High fat breakfast did not significantly affect  $C_{max}$  or  $AUC_{0-inf}$  of dexmethylphenidate when two 10 mg dexmethylphenidate hydrochloride tablets were administered, but delayed  $T_{max}$  from 1.5 hours postdose to 2.9 hours postdose.

#### Distribution

The plasma protein binding of dexmethylphenidate is not known; racemic methylphenidate is bound to plasma proteins by 12% to 15%, independent of concentration. Dexmethylphenidate shows a volume of distribution of  $2.65 \pm 1.11$  L/kg.

#### Elimination

Plasma dexmethylphenidate concentrations declined exponentially following oral administration of dexmethylphenidate hydrochloride tablets. Intravenous dexmethylphenidate was eliminated with a mean clearance of  $0.40 \pm 0.12$  L/hr/kg. The mean terminal elimination half-life of dexmethylphenidate was approximately 2.2 hours.

#### *Metabolism*

In humans, dexmethylphenidate is metabolized primarily via de-esterification to *d*- $\alpha$ -phenyl-piperidine acetic acid (also known as *d*-ritalinic acid). This metabolite has little or no pharmacological activity. There is little or no *in vivo* interconversion to the *l*-*threo*-enantiomer.

#### *Excretion*

After oral dosing of radiolabeled racemic methylphenidate in humans, about 90% of the radioactivity was recovered in urine. The main urinary metabolite of racemic *dl*-methylphenidate was *dl*-ritalinic acid, accountable for approximately 80% of the dose. Urinary excretion of parent compound accounted for 0.5% of an intravenous dose.

#### Studies in Special Populations

##### *Male and Female Patients*

Pharmacokinetic parameters were similar for boys and girls (mean age 10 years).

In a single dose study conducted in adults, the mean dexmethylphenidate  $AUC_{0-inf}$  values (adjusted for body weight) following single two 10 mg doses of dexmethylphenidate hydrochloride tablets were 25% to 35% higher in adult female volunteers ( $n = 6$ ) compared to male volunteers ( $n = 9$ ). Both  $T_{max}$  and  $t_{1/2}$  were comparable for males and females.

##### *Racial or Ethnic Groups*

There is insufficient experience with the use of dexmethylphenidate hydrochloride tablets to detect ethnic variations in pharmacokinetics.

##### *Pediatric Patients*

The pharmacokinetics of dexmethylphenidate after dexmethylphenidate hydrochloride tablets administration have not been studied in children less than 6 years of age. When single doses of dexmethylphenidate hydrochloride tablets were given to children between the ages of 6 to 12 years and healthy adult volunteers,  $C_{max}$  of dexmethylphenidate was similar, however, pediatric patients showed

somewhat lower AUCs compared to the adults.

#### Patients with Renal Impairment

There is no experience with the use of dexamethylphenidate hydrochloride tablets in patients with renal impairment. Since renal clearance is not an important route of methylphenidate clearance, renal impairment is expected to have little effect on the pharmacokinetics of dexamethylphenidate hydrochloride tablets.

#### Patients with Hepatic Impairment

There is no experience with the use of dexamethylphenidate hydrochloride tablets in patients with hepatic impairment.

#### Drug Interaction Studies

Methylphenidate is not metabolized by cytochrome P450 (CYP) isoenzymes to a clinically relevant extent. Inducers or inhibitors of CYPs are not expected to have any relevant impact on methylphenidate pharmacokinetics. Conversely, the d- and l-enantiomers of methylphenidate did not relevantly inhibit CYP1A2, 2C8, 2C9, 2C19, 2D6, 2E1 or 3A. Clinically, methylphenidate coadministration did not increase plasma concentrations of the CYP2D6 substrate desipramine.

## **13 NONCLINICAL TOXICOLOGY**

### **13.1 Carcinogenesis, Mutagenesis, and Impairment of Fertility**

#### **Carcinogenesis**

Lifetime carcinogenicity studies have not been carried out with dexamethylphenidate. In a lifetime carcinogenicity study carried out in B6C3F1 mice, racemic methylphenidate caused an increase in hepatocellular adenomas, and in males only, an increase in hepatoblastomas was seen at a daily dose of approximately 60 mg/kg/day. This dose is approximately 2 times the MRHD of 60 mg/day of racemic methylphenidate given to children on a mg/m<sup>2</sup> basis. Hepatoblastoma is a relatively rare rodent malignant tumor type. There was no increase in total malignant hepatic tumors. The mouse strain used is sensitive to the development of hepatic tumors and the significance of these results to humans is unknown.

Racemic methylphenidate did not cause any increase in tumors in a lifetime carcinogenicity study carried out in F344 rats; the highest dose used was approximately 45 mg/kg/day, which is approximately 4 times the MRHD (children) of 60 mg/day of racemic methylphenidate on a mg/m<sup>2</sup> basis.

In a 24-week carcinogenicity study with racemic methylphenidate in the transgenic mouse strain p53+/-, which is sensitive to genotoxic carcinogens, there was no evidence of carcinogenicity. Male and female mice were fed diets containing the same concentrations as in the lifetime carcinogenicity study; the high-dose group was exposed to 60 to 74 mg/kg/day of racemic methylphenidate.

#### **Mutagenesis**

Dexamethylphenidate was not mutagenic in the *in vitro* Ames reverse mutation assay, in the *in vitro* mouse lymphoma cell forward mutation assay, or in the *in vivo* mouse bone marrow micronucleus test. In an *in vitro* assay using cultured Chinese Hamster Ovary (CHO) cells treated with racemic methylphenidate, sister chromatid exchanges and chromosome aberrations were increased, indicative of a weak clastogenic response.

#### Impairment of Fertility

No human data on the effect of methylphenidate on fertility are available.

Fertility studies have not been conducted with dexamethylphenidate. Racemic methylphenidate did not impair fertility in male or female mice that were fed diets containing the drug in an 18-week continuous breeding study. The study was conducted at doses of up to 160 mg/kg/day, approximately 10-times the maximum recommended human dose of 60 mg/day of racemic methylphenidate given adolescents on a mg/m<sup>2</sup> basis.

## 14 CLINICAL STUDIES

The efficacy of dexamethylphenidate hydrochloride tablets for the treatment of ADHD was established in two double-blind, parallel-group, placebo-controlled trials in untreated or previously treated patients (ages 6 to 17 years old) who met DSM-IV criteria for ADHD inattentive, hyperactive-impulsive, or combined inattentive/hyperactive-impulsive subtypes. The sample was predominantly younger (ages 6 to 12 years); thus, the findings are most pertinent to this age group.

In Study 1, patients were randomized to receive either dexamethylphenidate hydrochloride tablets (5, 10, or 20 mg/day total dose), racemic methylphenidate HCl (10, 20, or 40 mg/day total dose), or placebo in a multicenter, 4-week, parallel group study in 132 pediatric patients. Patients received study medication twice daily separated by a 3.5 to 5.5 hours interval. Treatment was initiated with the lowest dose, and doses could be doubled at weekly intervals, depending on clinical response and tolerability, up to the maximum dose. The primary outcome was change from baseline to week 4 of the average score (an average of 2 ratings during the week) of the teacher's version of the SNAP-ADHD Rating Scale. This 18 item scale measures ADHD symptoms of inattention and hyperactivity/impulsivity, rated on a scale of 0 (Not at All) to 3 (Very Much). Patients treated with dexamethylphenidate hydrochloride tablets showed a statistically significant improvement in symptom scores from baseline over patients who received placebo (Table 3).

**Table 3: Summary of Efficacy Results from ADHD Acute-Phase Study in Pediatric Patients (6 to 17 years) (Study 1)**

Study Number	Treatment Group	Primary Efficacy Measure: Teacher SNAP-ADHD Total Score <sup>a</sup>	
		Mean Baseline Score (SD)	Mean Change from Baseline Week 4 Score (SD)
Study 1	Dexamethylphenidate Hydrochloride Tablets 5 to 20 mg/day <sup>b</sup> (n = 44)	1.4 (0.7) (n = 42)	- 0.7 (0.7) (n = 42)
	Placebo (n = 42)	1.6 (0.7) (n = 41)	- 0.2 (0.7) (n = 39)

ADHD: Attention Deficit Hyperactivity Disorder, SD: standard deviation; n = number of patients available at the assessment time point.

<sup>a</sup>Average of two ratings.

<sup>b</sup>Statistically significantly different from placebo.

Study 2 was a multicenter, placebo-controlled, double-blind, 2-week treatment withdrawal study in 75 children (ages 6 to 12 years) who were responders during a 6-week, open-label initial treatment period. Children took study medication twice a day separated by a 3.5 to 5.5 hour interval. The primary outcome was proportion of treatment failures at the end of the 2-week withdrawal phase, where treatment failure was defined as a rating of 6 (much worse) or 7 (very much worse) on the Investigator Clinical Global Impression - Improvement (CGI-I). Patients continued on dexamethylphenidate hydrochloride tablets showed a statistically significant lower rate of failure over patients who received placebo (Table 4).

**Table 4: Summary of Efficacy Results From ADHD Randomized Withdrawal Study in Pediatric Patients (6 to 17 years) (Study 2)**

Study Number	Treatment Group	Primary Efficacy Measure: Proportion of Treatment Failure <sup>a</sup>	
		Number of Treatment	

		<b>Failures/Number of Randomized Patients</b>	<b>Percentage</b>
Study 2	Dexmethylphenidate Hydrochloride Tablets 5 to 20 mg/day <sup>b</sup>	6/35	17.1%
	Placebo	25/40	62.5%

ADHD: Attention Deficit Hyperactivity Disorder.

<sup>a</sup>One patient did not have the value at Visit 10 and hence not included in this analysis.

<sup>b</sup>Statistically significantly different from placebo.

## 16 HOW SUPPLIED/STORAGE AND HANDLING

Dexmethylphenidate hydrochloride tablets are available as follows:

**2.5 mg:** Light blue colored, round, biconvex, beveled edge, uncoated, tablets debossed '376' on one side and 'S' above '2.5' on the other side.

NDC 57664-376-83 Bottles of 30 CRC  
 NDC 57664-376-88 Bottles of 100 CRC  
 NDC 57664-376-08 Bottles of 100  
 NDC 57664-376-13 Bottles of 500  
 NDC 57664-376-18 Bottles of 1,000

**5 mg:** Light yellow colored, round, biconvex, beveled edge, uncoated, tablets debossed '378' on one side and 'S' above '5' on the other side.

NDC 57664-378-83 Bottles of 30 CRC  
 NDC 57664-378-88 Bottles of 100 CRC  
 NDC 57664-378-08 Bottles of 100  
 NDC 57664-378-13 Bottles of 500  
 NDC 57664-378-18 Bottles of 1,000

**10 mg:** White, round, biconvex, beveled edge, uncoated, tablets debossed '379' on one side and 'S' above '10' on the other side.

NDC 57664-379-83 Bottles of 30 CRC  
 NDC 57664-379-88 Bottles of 100 CRC  
 NDC 57664-379-08 Bottles of 100  
 NDC 57664-379-13 Bottles of 500  
 NDC 57664-379-18 Bottles of 1,000

Store at 20°C to 25°C (68°F to 77°F), with excursions permitted between 15°C and 30°C (59°F to 86°F) [See USP Controlled Room Temperature].

Protect from light and moisture.

Dispense in a tight, light-resistant container as defined in the USP with a child-resistant closure.

### Disposal

Comply with local laws and regulations on drug disposal of CNS stimulants. Dispose of remaining, unused, or expired dexmethylphenidate hydrochloride tablets by a medicine takeback program or by an authorized collector registered with the Drug Enforcement Administration. If no take-back program or authorized collector is available, mix dexmethylphenidate hydrochloride tablets with an undesirable,



nontoxic substance to make it less appealing to children and pets. Place the mixture in a container such as a sealed plastic bag and discard dexmethylphenidate hydrochloride tablets in the household trash.

## **17 PATIENT COUNSELING INFORMATION**

Advise the patient to read the FDA-approved patient labeling (Medication Guide).

### Controlled Substance Status/High Potential for Abuse and Dependence

Advise patients that dexmethylphenidate hydrochloride tablets are a controlled substance, and it can be abused and lead to dependence. Instruct patients that they should not give dexmethylphenidate hydrochloride tablets to anyone else. Advise patients to store dexmethylphenidate hydrochloride tablets in a safe place, preferably locked, to prevent abuse. Advise patients to comply with laws and regulations on drug disposal. Advise patients to dispose of remaining, unused, or expired dexmethylphenidate hydrochloride tablets by a medicine take-back program if available [see *Boxed Warning, Warnings and Precautions (5.1), Drug Abuse and Dependence (9.1, 9.2, and 9.3), How Supplied/Storage and Handling (16)*].

### Serious Cardiovascular Risks

Advise patients that there is a potential serious cardiovascular risk including sudden death, myocardial infarction, stroke, and hypertension with dexmethylphenidate hydrochloride tablets use. Instruct patients to contact a healthcare provider immediately if they develop symptoms such as exertional chest pain, unexplained syncope, or other symptoms suggestive of cardiac disease [see *Warnings and Precautions (5.2)*].

### Blood Pressure and Heart Rate Increases

Instruct patients that dexmethylphenidate hydrochloride tablets can cause elevations of their blood pressure and pulse rate [see *Warnings and Precautions (5.3)*].

### Psychiatric Risks

Advise patients that dexmethylphenidate hydrochloride tablets, at recommended doses, can cause psychotic or manic symptoms, even in patients without prior history of psychotic symptoms or mania [see *Warnings and Precautions (5.4)*].

### Priapism

Advise patients of the possibility of painful or prolonged penile erections (priapism). Instruct them to seek immediate medical attention in the event of priapism [see *Warnings and Precautions (5.5)*].

### Circulation Problems in Fingers and Toes [Peripheral Vasculopathy including Raynaud's Phenomenon]

Instruct patients beginning treatment with dexmethylphenidate hydrochloride tablets about the risk of peripheral vasculopathy, including Raynaud's phenomenon, and associated signs and symptoms: fingers or toes may feel numb, cool, painful, and/or may change color from pale, to blue, to red. Instruct patients to report to their physician any new numbness, pain, skin color change, or sensitivity to temperature in fingers or toes.

Instruct patients to call their physician immediately with any signs of unexplained wounds appearing on fingers or toes while taking dexmethylphenidate hydrochloride tablets. Further clinical evaluation (e.g., rheumatology referral) may be appropriate for certain patients [see *Warnings and Precautions (5.6)*].

### Suppression of Growth

Advise patients that dexmethylphenidate hydrochloride tablets may cause slowing of growth and weight loss [see *Warnings and Precautions (5.7)*].

### Pregnancy Registry

Advise patients that there is a pregnancy exposure registry that monitors pregnancy outcomes in patients exposed to ADHD medications, including dexmethylphenidate hydrochloride tablets, during pregnancy [see *Use in Specific Populations (8.1)*].

Distributed by:

**MEDICATION GUIDE**  
**Dexmethylphenidate Hydrochloride Tablets, CII**  
(dex meth ill FEN i date hye" droe klor'ide)

**What is the most important information I should know about dexmethylphenidate hydrochloride tablets?**

**Dexmethylphenidate hydrochloride tablets are a federal controlled substance (CII) because it can be abused or lead to dependence.** Keep dexmethylphenidate hydrochloride tablets in a safe place to prevent misuse and abuse. Selling or giving away dexmethylphenidate hydrochloride tablets may harm others, and is against the law.

Tell your doctor if you or your child have abused or been dependent on alcohol, prescription medicines, or street drugs.

**The following have been reported with use of methylphenidate hydrochloride and other stimulant medicines:**

**1. Heart-related problems:**

- **sudden death in patients who have heart problems or heart defects**
- **stroke and heart attack in adults**
- **increased blood pressure and heart rate**

Tell your doctor if you or your child have any heart problems, heart defects, high blood pressure, or a family history of these problems.

Your doctor should check you or your child carefully for heart problems before starting dexmethylphenidate hydrochloride tablets.

Your doctor should check you or your child's blood pressure and heart rate regularly during treatment with dexmethylphenidate hydrochloride tablets.

**Call your doctor right away if you or your child has any signs of heart problems such as chest pain, shortness of breath, or fainting while taking dexmethylphenidate hydrochloride tablets.**

**2. Mental (Psychiatric) problems:**

**All Patients**

- **new or worse behavior and thought problems**
- **new or worse bipolar illness**
- **new or worse aggressive behavior or hostility**
- **new psychotic symptoms (such as hearing voices, believing things that are not true, are suspicious) or new manic symptoms**

Tell your doctor about any mental problems you or your child have, or about a family history of suicide, bipolar illness, or depression.

**Call your doctor right away if you or your child have any new or worsening mental symptoms or problems while taking dexmethylphenidate hydrochloride tablets, especially seeing or hearing things that are not real, believing things that are not real, or are suspicious.**

**What are dexmethylphenidate hydrochloride tablets?**

- Dexmethylphenidate hydrochloride tablets are a central nervous system stimulant (CNS) prescription medicine. **They are used for the treatment of Attention-Deficit Hyperactivity Disorder (ADHD).** Dexmethylphenidate hydrochloride tablets may help increase attention and decrease impulsiveness and hyperactivity in patients with ADHD.
- Dexmethylphenidate hydrochloride tablets should be used as a part of a total treatment program

for ADHD that may include counseling or other therapies.

**Who should not take dexamethylphenidate hydrochloride tablets:**

**Dexamethylphenidate hydrochloride tablets should not be taken if you or your child:**

- are allergic to methylphenidate hydrochloride, or any of the ingredients in dexamethylphenidate hydrochloride tablets. See the end of this Medication Guide for a complete list of ingredients in dexamethylphenidate hydrochloride tablets.
- are taking or have taken within the past 14 days an anti-depression medicine called a monoamine oxidase inhibitor or MAOI.

**Dexamethylphenidate hydrochloride tablets may not be right for you or your child. Before starting dexamethylphenidate hydrochloride tablets, tell your or your child's doctor about all health conditions (or a family history of) including:**

- heart problems, heart defects, high blood pressure
- mental problems including psychosis, mania, bipolar illness, or depression
- circulation problems in fingers or toes
- if you are pregnant or plan to become pregnant. It is not known if dexamethylphenidate hydrochloride tablets will harm your unborn baby.
- There is a pregnancy registry for females who are exposed to ADHD medications, including dexamethylphenidate hydrochloride tablets during pregnancy. The purpose of the registry is to collect information about the health of females exposed to dexamethylphenidate hydrochloride tablets and their baby. If you or your child becomes pregnant during treatment with dexamethylphenidate hydrochloride tablets talk to your healthcare provider about registering with the National Pregnancy Registry of ADHD medications at 1-866-961-2388 or visit online at <https://womensmentalhealth.org/adhd-medications/>.
- if you are breastfeeding or plan to breastfeed. Dexamethylphenidate hydrochloride tablets pass into your breast milk. Talk to your healthcare provider about the best way to feed the baby during treatment with dexamethylphenidate hydrochloride tablets.

**Tell your doctor about all of the medicines that you or your child takes including prescription and over-the-counter medicines, vitamins, and herbal supplements.** Dexamethylphenidate hydrochloride tablets and some medicines may interact with each other and cause serious side effects. Sometimes the doses of other medicines will need to be adjusted while taking dexamethylphenidate hydrochloride tablets.

Your doctor will decide whether dexamethylphenidate hydrochloride tablets can be taken with other medicines.

**Especially tell your doctor if you or your child takes:**

- anti-depression medicines including MAOIs
- blood pressure medicines (anti-hypertensive)

Know the medicines that you or your child takes. Keep a list of your medicines with you to show your doctor and pharmacist.

- You should not take dexamethylphenidate hydrochloride tablets on the day of your operation if a certain type of anesthetic is used. This is because there is a chance of a sudden rise in blood pressure and heart rate during the operation.

**Do not start any new medicine while taking dexamethylphenidate hydrochloride tablets without talking to your doctor first.**

## How should dexamethylphenidate hydrochloride tablets be taken?

- Take dexamethylphenidate hydrochloride tablets exactly as prescribed. Your doctor may adjust the dose until it is right for you or your child.
- Take dexamethylphenidate hydrochloride tablets twice daily, at least 4 hours apart.
- Dexamethylphenidate hydrochloride tablets may be taken with or without food.
- From time to time, your doctor may stop dexamethylphenidate hydrochloride tablets treatment for a while to check ADHD symptoms.
- Your doctor may do regular checks of the blood, heart, and blood pressure while taking dexamethylphenidate hydrochloride tablets.
- Children should have their height and weight checked often while taking dexamethylphenidate hydrochloride tablets. Dexamethylphenidate hydrochloride tablets treatment may be stopped if a problem is found during these check-ups.
- **In case of poisoning call your poison control center at 1-800-222-1222 right away, or go to the nearest hospital emergency room.**

## What are the possible side effects of dexamethylphenidate hydrochloride tablets?

**Dexamethylphenidate hydrochloride tablets may cause serious side effects, including:**

- See “**What is the most important information I should know about dexamethylphenidate hydrochloride tablets?**” for information on reported heart and mental problems.
- **painful and prolonged erections (priapism)** have occurred with methylphenidate. If you or your child develops priapism, seek medical help right away. Because of the potential for lasting damage, priapism should be evaluated by a doctor immediately.
- **circulation problems in fingers and toes** (Peripheral Vasculopathy, including Raynaud’s phenomenon):
  - fingers or toes may feel numb, cool, painful
  - fingers or toes may change color from pale, to blue, to red

Tell your doctor if you or your child have, numbness, pain, skin color change, or sensitivity to temperature in the fingers or toes.

- **Call your doctor right away if you have or your child has any signs of unexplained wounds appearing on fingers or toes while taking dexamethylphenidate hydrochloride tablets.**
- **slowing of growth (height and weight) in children**

## Common side effects include:

- abdominal pain
- fever
- anorexia
- nausea

Call your doctor for medical advice about side effects. **You may report side effects to FDA at 1-800-FDA-1088.**

## How should I store dexamethylphenidate hydrochloride tablets?

- Store dexamethylphenidate hydrochloride tablets in a safe place and in a tightly closed container at room temperature between 68°F to 77°F (20°C to 25°C).
- Protect from light.
- Dispose of remaining, unused, or expired dexamethylphenidate hydrochloride tablets by a medicine take-back program at authorized collection sites such as retail pharmacies, hospital or clinic pharmacies, and law enforcement locations. If no take-back program or authorized collector is available, mix dexamethylphenidate hydrochloride tablets with an undesirable, nontoxic substance such as dirt, cat litter, or used coffee grounds to make it less appealing to

children and pets. Place the mixture in a container such as a sealed plastic bag and throw away (discard) dexmethylphenidate hydrochloride tablets in the household trash.

- **Keep dexmethylphenidate hydrochloride tablets and all medicines out of the reach of children.**

**General information about the safe and effective use of dexmethylphenidate hydrochloride tablets.**

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. You can ask your pharmacist or doctor for information about dexmethylphenidate hydrochloride tablets that is written for healthcare professionals. Do not use dexmethylphenidate hydrochloride tablets for a condition for which it was not prescribed. Do not give dexmethylphenidate hydrochloride tablets to other people, even if they have the same symptoms that you have. It may harm them and it is against the law.

**What are the ingredients in dexmethylphenidate hydrochloride tablets?**

**Active ingredient:** dexmethylphenidate hydrochloride

**Inactive ingredients:** lactose monohydrate, sodium starch glycolate, talc, magnesium stearate, and FD&C Blue No.1 aluminum lake (2.5 mg tablet), D&C Yellow No. 10 aluminum lake (5 mg tablet); the 10 mg tablet contains no dye.

Distributed by:

Sun Pharmaceutical Industries, Inc.

Cranbury, NJ 08512

For more information, call 1-800-406-7984.

This Medication Guide has been approved by the U.S. Food and Drug Administration

Rev. 11/2019

**PRINCIPAL DISPLAY PANEL – 2.5 mg Tablet Bottle Label**

**NDC 57664-376-88**

**Dexmethylphenidate Hydrochloride Tablets, CII**


**2.5 mg**

**PHARMACIST: DISPENSE WITH MEDICATION GUIDE PROVIDED SEPARATELY.**

**Rx Only**

**100 Tablets**

NDC 57664-376-88

**Dexmethylphenidate Hydrochloride Tablets** 

**2.5 mg**

PHARMACIST: Dispense with Medication Guide to each patient.

Rx only  
100 Tablets



Manufactured by:  
Olim Laboratories Inc.  
New Brunswick, NJ 08901

Distributed by:  
Sun Pharmaceutical Industries, Inc.  
Cranbury, NJ 08512

Rev. 09/2020

Each tablet contains 2.5 mg of Dexmethylphenidate Hydrochloride.

**USUAL DOSAGE:** See package insert. Dispense in a tight, light-resistant container as defined in the USP, with a child-resistant closure. Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Protect from light and moisture. Do not accept if inner seal on bottle is broken or missing.

**Keep this and all medications out of the reach of children.**

Mfg. and Dist. by: Sun Pharmaceutical Industries, Inc.  
Cranbury, NJ 08512

Rev. 09/17

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Unvarnished Zone  
30MM X 41.275MM  
1.181" X 1.625" Inch

**PRINCIPAL DISPLAY PANEL – 5 mg Tablet Bottle Label**

**NDC 57664-378-88**

**Dexmethylphenidate Hydrochloride Tablets, CII**

**5 mg**

**PHARMACIST: DISPENSE WITH MEDICATION GUIDE PROVIDED SEPARATELY.**

**Rx Only**

**100 Tablets**

NDC 57664-378-88

**Dexmethylphenidate Hydrochloride Tablets** 

**5 mg**

PHARMACIST: DISPENSE WITH MEDICATION GUIDE PROVIDED SEPARATELY.

Rx Only  
100 Tablets



Each tablet contains 5 mg of Dexmethylphenidate Hydrochloride.

**USUAL DOSAGE:** See package insert. Dispense in a tight, light-resistant container as defined in the USP with a child-resistant closure. Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Protect from light and moisture. Do not accept if inner seal on bottle is broken or missing.

**Keep this and all medications out of the reach of children.**

Mfg. and Dist. by: Sun Pharmaceutical Industries, Inc.  
Cranbury, NJ 08512

Rev. 09/17

517728


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Unvarnished Zone  
30MM X 41.275MM  
1.181" X 1.625" Inch




NDC 57664-378-88

**Dexmethylphenidate  
Hydrochloride  
Tablets** 

**5 mg**

PHARMACIST: Dispense with Medication Guide to each patient.

Rx only  
100 Tablets




Manufactured by:  
Olin Laboratories Inc.  
New Brunswick, NJ 08901


Distributed by:  
Sun Pharmaceutical Industries, Inc.  
Cranbury, NJ 08512

Rev. 09/2020

Each tablet contains 5 mg of  
Dexmethylphenidate Hydrochloride.  
**USUAL DOSAGE:** See package insert.  
Dispense in a tight, light-resistant container as  
defined in the USP, with a child-resistant closure.  
Store at 20° to 25°C (68° to 77°F) [see USP  
Controlled Room Temperature].  
Protect from light and moisture.  
Do not accept if inner seal on bottle  
is broken or missing.  
**Keep this and all medications out of  
the reach of children.**  
Medication Guide available at  
<https://www.sunpharma.com/usa/products>



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N 3 57664 37888 5

Unvarnished Zone  
30MM X 41.275MM  
1.181" X 1.625" Inch

**PRINCIPAL DISPLAY PANEL – 10 mg Tablet Bottle Label**

**NDC 57664-379-88**

**Dexmethylphenidate Hydrochloride Tablets, CII**

**10 mg**

**PHARMACIST: DISPENSE WITH MEDICATION GUIDE PROVIDED SEPARATELY.**

**Rx Only**

**100 Tablets**

NDC 57664-379-88

**Dexmethylphenidate  
Hydrochloride  
Tablets** 

**10 mg**

PHARMACIST: DISPENSE WITH MEDICATION GUIDE PROVIDED SEPARATELY.

Rx Only  
100 Tablets



Each tablet contains 10 mg of  
Dexmethylphenidate Hydrochloride.  
**USUAL DOSAGE:**  
See package insert.  
Dispense in a tight, light-resistant  
container as defined in the USP with a  
child-resistant closure.  
Store at 20° to 25°C (68° to 77°F) [see  
USP Controlled Room Temperature].  
Protect from light and moisture.  
Do not accept if inner seal on bottle is  
broken or missing.  
**Keep this and all medications out of  
the reach of children.**  
5177729  
Mfg. and Dist. by: **Sun Pharmaceutical  
Industries, Inc.**  
Cranbury, NJ 08512

Rev. 09/17



N 3 57664 37988 2

Unvarnished Zone  
30MM X 41.275MM  
1.181" X 1.625" Inch


NDC 57664-379-88

# Dexmethylphenidate Hydrochloride Tablets



**10 mg**

PHARMACIST: Dispense with Medication Guide to each patient.

Rx only  
100 Tablets

 SUN PHARMA

Each tablet contains 10 mg of Dexmethylphenidate Hydrochloride.  
**USUAL DOSAGE:** See package insert.  
 Dispense in a tight, light-resistant container as defined in the USP, with a child-resistant closure.  
 Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].  
 Protect from light and moisture.  
 Do not accept if inner seal on bottle is broken or missing.  
**Keep this and all medications out of the reach of children.**  
 Medication Guide available at <https://www.sunpharma.com/usa/products>

  
 5213485  
  
 5766437988  
 N 3

Unvarnished Zone  
 30MM X 41.275MM  
 1.181" X 1.625" Inch

Manufactured by: Ohm Laboratories Inc., New Brunswick, NJ 08901  
 Distributed by: Sun Pharmaceutical Industries, Inc., Cranbury, NJ 08512  
 Rev. 09/2020

## DEXMETHYLPHENIDATE HYDROCHLORIDE

dexmethylphenidate hydrochloride tablet

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:57664-376
Route of Administration	ORAL	DEA Schedule	CII

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
DEXMETHYLPHENIDATE HYDROCHLORIDE (UNII: 1678OK0E08) (DEXMETHYLPHENIDATE - UNII:M32RH9MFGP)	DEXMETHYLPHENIDATE HYDROCHLORIDE	2.5 mg

### Inactive Ingredients

Ingredient Name	Strength
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
SODIUM STARCH GLYCOLATE TYPE A POTATO (UNII: 5856J3G2A2)	
TALC (UNII: 7SEV7J4R1U)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
FD&C BLUE NO. 1 (UNII: H3R47K3TBD)	

### Product Characteristics

Color	BLUE (Light Blue)	Score	no score
Shape	ROUND	Size	6mm
Flavor		Imprint Code	376;S2;5
Contains			

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
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1	NDC:57664-376-83	30 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
2	NDC:57664-376-88	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
3	NDC:57664-376-08	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
4	NDC:57664-376-13	500 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
5	NDC:57664-376-18	1000 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA201231	09/26/2013	

## DEXMETHYLPHENIDATE HYDROCHLORIDE

dexmethylphenidate hydrochloride tablet

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:57664-378
Route of Administration	ORAL	DEA Schedule	CII

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
DEXMETHYLPHENIDATE HYDROCHLORIDE (UNII: 1678OK0E08) (DEXMETHYLPHENIDATE - UNII:M32RH9MFGP)	DEXMETHYLPHENIDATE HYDROCHLORIDE	5 mg

### Inactive Ingredients

Ingredient Name	Strength
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
SODIUM STARCH GLYCOLATE TYPE A POTATO (UNII: 5856J3G2A2)	
TALC (UNII: 7SEV7J4R1U)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
D&C YELLOW NO. 10 (UNII: 35SW5USQ3G)	

### Product Characteristics

Color	YELLOW (Light Yellow)	Score	no score
Shape	ROUND	Size	6mm
Flavor		Imprint Code	378;S5
Contains			

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:57664-378-83	30 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
2	NDC:57664-378-88	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
3	NDC:57664-378-08	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	

4	NDC:57664-378-13	500 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
5	NDC:57664-378-18	1000 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA201231	09/26/2013	

## DEXMETHYLPHENIDATE HYDROCHLORIDE

dexmethylphenidate hydrochloride tablet

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:57664-379
Route of Administration	ORAL	DEA Schedule	CII

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
DEXMETHYLPHENIDATE HYDROCHLORIDE (UNII: 1678OK0E08) (DEXMETHYLPHENIDATE - UNII:M32RH9MFGP)	DEXMETHYLPHENIDATE HYDROCHLORIDE	10 mg

### Inactive Ingredients

Ingredient Name	Strength
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
SODIUM STARCH GLYCOLATE TYPE A POTATO (UNII: 5856J3G2A2)	
TALC (UNII: 7SEV7J4R1U)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	

### Product Characteristics

Color	WHITE	Score	no score
Shape	ROUND	Size	6mm
Flavor		Imprint Code	379;S10
Contains			

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:57664-379-83	30 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
2	NDC:57664-379-88	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
3	NDC:57664-379-08	100 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
4	NDC:57664-379-13	500 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	
5	NDC:57664-379-18	1000 in 1 BOTTLE; Type 0: Not a Combination Product	09/26/2013	

## Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA201231	09/26/2013	

**Labeler** - Sun Pharmaceutical Industries, Inc. (146974886)

## Establishment

Name	Address	ID/FEI	Business Operations
Ohm Laboratories Inc.		184769029	MANUFACTURE(57664-376, 57664-378, 57664-379)

Revised: 10/2020

Sun Pharmaceutical Industries, Inc.