

**HIGHLIGHTS OF PRESCRIBING INFORMATION**  
These highlights do not include all the information needed to use METHYLPHENIDATE HYDROCHLORIDE EXTENDED-RELEASE CAPSULES safely and effectively. See full prescribing information for METHYLPHENIDATE HYDROCHLORIDE EXTENDED-RELEASE CAPSULES.

**METHYLPHENIDATE HYDROCHLORIDE extended-release capsules**, for oral use, GI

**Initial U.S. Approval: 1955**

**WARNING: ABUSE AND DEPENDENCE**  
See full prescribing information for complete boxed warning.

- CNS stimulants, including methylphenidate hydrochloride extended-release capsules, other methylphenidate-containing products, and amphetamines, have a high potential for abuse and dependence. (5.1, 5.2, 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, 9.3)

**REGISTRATION MAJOR CHANGES**

Indications and Usage (1) 06/2019  
Warnings and Precautions (5.7) 06/2019

**INDICATIONS AND USAGE**  
Methylphenidate hydrochloride extended-release capsules are a central nervous system (CNS) stimulant indicated for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) in patients 6 years and older. (1)

**Limitations of Use**  
Pediatric patients younger than 6 years of age experienced higher plasma exposure than patients 6 years and older at the same dose and high rates of adverse reactions, most notably weight loss. (5.4)

**DOSE AND ADMINISTRATION**  
Recommended starting dose for patients 6 years and older: 10 mg once daily with or without food in the morning. Dosage may be increased without exceeding 60 mg per day. Daily dosage above 60 mg is not recommended. (2.1)

Capsules may be swallowed whole or opened and the entire contents sprinkled onto applesauce. (2.1)

**DOSE FORMS AND STRENGTHS**  
Extended-Release Capsules: 10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 50 mg, and 60 mg capsules.  
Methylphenidate hydrochloride, which is equivalent to 8.6 mg, 13.0 mg, 17.3 mg, 25.9 mg, 34.6 mg, 43.2 mg, and 51.9 mg of methylphenidate free base, respectively, per capsule. (3)

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Revised: 10/2019

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CNS stimulants, including methylphenidate hydrochloride extended-release capsules, 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 **Warning and Precautions (5.1), Drug Abuse and Dependence (9.2, 9.3).**)

**INDICATIONS AND USAGE**  
Methylphenidate hydrochloride extended-release capsules are indicated for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) in patients 6 years and older. (See **Clinical Studies (14).**)

**Limitations of Use**  
Pediatric patients younger than 6 years of age experienced higher plasma exposure than patients 6 years and older at the same dose and high rates of adverse reactions, most notably weight loss. (See **Use in Specific Populations (8.4).**)

**DOSE AND ADMINISTRATION**  
**2.1 Pretreatment Screening**  
Prior to treating pediatric patients and adults with CNS stimulants including methylphenidate hydrochloride extended-release capsules, 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**).

**2.2 General Dosing Information**  
The recommended starting dose of methylphenidate hydrochloride extended-release capsules for patients 6 years and older is 10 mg once daily in the morning with or without food. Advise patients to establish a routine pattern with regard to meals. The dose should be individualized according to the needs and response of the patient.

The dose may be titrated weekly in increments of 10 mg. Daily doses above 60 mg have not been studied and are not recommended. Methylphenidate hydrochloride extended-release capsules may be taken whole or the capsule may be opened and the entire contents sprinkled onto applesauce. If the patient is using the sprinkled administration method, the sprinkled applesauce should be consumed immediately; it should not be stored. Patients should take the applesauce with sprinkled beads in its entirety without chewing. The dose of a single capsule should not be divided. The contents of the entire capsule should be taken, and patients should not take anything from the capsule per day.

Pharmacological treatment of ADHD may be needed for extended periods. Healthcare providers should periodically re-evaluate the long-term use of methylphenidate hydrochloride extended-release capsules, and adjust dosage as needed.

**2.3 Dose Reduction and Discontinuation**  
If paradoxical aggravation of symptoms or other adverse reactions occur, the dosage should be reduced, or, if necessary, the drug should be discontinued.

If improvement is not observed after appropriate dosage adjustment over a one-month period, the drug should be discontinued.

**DOSE FORMS AND STRENGTHS**  
Methylphenidate Hydrochloride Extended-Release Capsules are available as follows:  
10 mg - Capsule with turquoise blue opaque cap and white opaque body printed with A854 on the cap and 10 mg on the body in black ink.  
15 mg - Capsule with cream opaque cap and white opaque body printed with A862 on the cap and 15 mg on the body in black ink.  
20 mg - Capsule with grey opaque cap and white opaque body printed with A869 on the cap and 20 mg on the body in black ink.  
30 mg - Capsule with yellow opaque cap and white opaque body printed with A873 on the cap and 30 mg on the body in black ink.  
40 mg - Capsule with white opaque cap and white opaque body printed with A881 on the cap and 40 mg on the body in black ink.  
50 mg - Capsule with green opaque cap and white opaque body printed with A885 on the cap and 50 mg on the body in black ink.  
60 mg - Capsule with pink opaque cap and white opaque body printed with A902 on the cap and 60 mg on the body in black ink.

**CONTRAINDICATIONS**  
Hypersensitivity to methylphenidate or other components of the product. Hypersensitivity reactions such as angioedema and anaphylactic reactions have been reported in patients treated with methylphenidate products. (See **Adverse Reactions (5.1).**)

Concomitant treatment with monoamine oxidase inhibitors, and also within 14 days following discontinuation of treatment with a monoamine oxidase inhibitor, because of the risk of hypertensive crisis. (See **Drug Interactions (7.1).**)

**WARNINGS AND PRECAUTIONS**  
**5.1 Potential for Abuse and Dependence**  
CNS stimulants, including methylphenidate hydrochloride extended-release capsules, 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/or other serious heart problems taking CNS stimulants at recommended doses for ADHD. Avoid use in patients with known structural cardiac abnormalities, cardiomyopathy, serious heart arrhythmia, coronary artery disease, and other serious heart problems. Further evaluate patients who develop exertional chest pain, unexplained syncope, or arrhythmias during methylphenidate hydrochloride extended-release capsule 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 Pre-Existing Psychotic Disorder**  
CNS stimulants may exacerbate symptoms of behavior disturbance and thought disorder in patients with a pre-existing psychotic disorder.

**5.5 Risk of a Manic Episode in Patients with Bipolar Disorder**  
CNS stimulants may induce a manic or mixed 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).

**5.6 New Psychotic or Manic Symptoms**  
New psychotic or manic symptoms, such as 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 methylphenidate hydrochloride extended-release capsules. In a pooled analysis of multiple short-term, placebo-controlled studies of CNS stimulants, psychotic or manic symptoms occurred in approximately 1% of CNS stimulant-treated patients, compared to 0% in placebo-treated patients.

**5.7 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 abnormality sustained or frequent and painful erections should seek immediate medical attention.

**5.8 Peripheral Vasculopathy, including Raynaud's Phenomenon**  
CNS stimulants, including methylphenidate hydrochloride extended-release capsules, 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.

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**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 pediatric 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 pediatric patients over 36 months (to ages 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.

**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), and Drug Abuse and Dependence (9.2, 9.3)**)  
• Hypersensitivity to Methylphenidate (See **Contraindications (4)**)  
• Hypertensive Crisis with Concomitant Use of Monoamine Oxidase Inhibitors (See **Contraindications (4) and 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)**)

**Clinical Trial Experience**  
6.1 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 Other Methylphenidate Products in Children, Adolescents, and Adults with ADHD**  
Commonly reported (>2% of the methylphenidate group and at least twice the rate of the placebo group) adverse reactions from placebo-controlled trials of methylphenidate products include: decreased appetite, decreased weight, nausea, abdominal pain, dyspepsia, dry mouth, vomiting, insomnia, anxiety, nervousness, restlessness, affect lability, agitation, irritability, dizziness, vertigo, tremor, blurred vision, increased blood pressure, increased heart rate, tachycardia, palpitations, hyperhidrosis, and pyrexia.

**Clinical Trials Experience with Methylphenidate Hydrochloride Extended-Release in Pediatric Patients with ADHD**  
The safety data in this section is based on data from two one-week controlled clinical studies of methylphenidate hydrochloride extended-release in pediatric patients with ADHD, one in children ages 6 to 12 years (RP-PR-EP001, hereafter "Study 1"), and one in children and adolescents ages 6 to 17 years (RP-PR-EP002, hereafter "Study 2").

Two methylphenidate hydrochloride extended-release clinical studies evaluated a total of 256 patients with ADHD. Two hundred and forty-three (243) patients participated in the double-blind phases of these two clinical studies.

Study 1 was a randomized, double-blind, single center, placebo-controlled, flexible-dose, cross-over study to evaluate the time course of efficacy, tolerability and safety of methylphenidate hydrochloride extended-release 15 mg, 20 mg, 30 mg, or 40 mg administered for one week in 26 pediatric patients aged 6 to 12 years who met DSM-IV criteria for ADHD. (See **Clinical Studies (14)**).

**Most Common Adverse Reactions** (incidence of  $\geq 5\%$  and at a rate at least twice placebo): abdominal pain, pyrexia and headache. **Adverse Reactions Leading to Discontinuation:** No subjects discontinued due to adverse reactions during the double-blind phase of this study.

Study 2 was a randomized, double-blind, multicenter, placebo-controlled, parallel group, fixed-dose study of 10 mg, 15 mg, 20 mg, and 40 mg of methylphenidate hydrochloride extended-release administered for one week in 221 pediatric patients (6 to 17 years of age) who met DSM-IV criteria for ADHD. (See **Clinical Studies (14)**).

**Most Common Adverse Reactions** (incidence of  $\geq 5\%$  and at a rate of at least twice placebo): abdominal pain, decreased appetite, headache and insomnia.

**Adverse Reactions Leading to Discontinuation:** Two patients (4.4%) in the methylphenidate hydrochloride extended-release 40 mg group discontinued due to insomnia, nausea and rapid heart rate, respectively during the double-blind phase of the study.

**Table 1: Common Adverse Reactions Occurring in  $\geq 2\%$  of Pediatric Patients in 17 years of age) with ADHD Taking Methylphenidate Hydrochloride Extended-Release and at a Rate Greater than Placebo (Study 2)**

System Organ Class	Methylphenidate Hydrochloride Extended-Release (n=152)	Placebo (n=47)
<b>Nervous System Disorders</b>		
Headache	10.9%	8.5%
Insomnia	9.8%	2.1%
Dizziness	2.2%	2.1%
<b>Abdominal pain upper</b>	8.2%	0%
Nausea	3.8%	0%
Vomiting	3.8%	0%
<b>Metabolism and Nutritional</b>		
Decreased Appetite	4.9%	0%

**6.2 Post-Marketing Experience**  
The following adverse reactions have been identified during post approval use of methylphenidate products. Because these reactions are reported voluntarily from a population of uncertain size, it is not possible to reliably estimate their frequency or establish a causal relationship to drug exposure. The following adverse reactions are as follows:  
**Blood and Lymphatic System Disorders:** Pancreatitis, Thrombocytopenic purpura  
**Cardiac Disorders:** Angina pectoris, Bradycardia, Extrasystole, Supraventricular tachycardia, Ventricular extrasystole  
**Eye Disorders:** Diplopia, Mydriasis, Visual impairment  
**General Disorders:** Chest pain, Chest discomfort, Hyperpyrexia  
**Injury, Poisoning and Procedural Complications:** Angioedema, Anaphylactic reactions, Auricular swelling, Bullous conditions, Exfoliative conditions, Urticaria, Pruritus NEC, Rash, Erythema, and Exanthemas NEC  
**Investigations:** Alkaline phosphatase increased, Bilirubin increased, Hepatic enzyme increased, Platelet count decreased, White blood cell count abnormal, severe hepatic injury  
**Musculoskeletal, Connective Tissue and Bone Disorders:** Arthralgia, Myalgia, Muscle twitching, Rhabdomyolysis  
**Nervous System:** Convulsion, Grand mal convulsion, Dyskinesia, serotonin syndrome in combination with serotonergic drugs  
**Psychiatric Disorders:** Disorientation, Libido changes  
**Skin and Subcutaneous Tissue Disorders:** Alopecia, Erythema

**DRUG INTERACTIONS**  
7.1 **Clinically Important Interactions with Methylphenidate Hydrochloride Extended-Release Capsules**  
Monoamine Oxidase Inhibitors (MAOIs)  
Do not administer methylphenidate hydrochloride extended-release capsules concomitantly or within 14 days after discontinuing MAOI treatment. Concomitant use of MAOIs and CNS stimulants may cause hypertensive crisis. Potential outcomes include death, stroke, myocardial infarction, aortic dissection, ophthalmological complications, eclampsia, pulmonary edema, and renal failure (See **Contraindications (4)**).

**USE IN SPECIFIC POPULATIONS**  
8.1 **Pregnancy Exposure Registry**  
There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to methylphenidate hydrochloride extended-release during pregnancy. Healthcare providers are encouraged to register patients by calling the National Pregnancy Registry for Psychostimulants at 1-866-961-2388.  
**Risk Summary**  
Limited published studies report on the use of methylphenidate in pregnant women; however, the data are insufficient to inform any drug-associated risks. No effects on morphological development were observed in embryo-fetal development studies with oral administration of methylphenidate to pregnant rats and rabbits during organogenesis at doses up to 10 and 15 times, respectively, the maximum recommended human dose (MRHD) of 60 mg/kg/day (6 times the MRHD given to adolescents on a mg/m<sup>2</sup> basis). However, spina bifida was observed in rabbits at a dose 52 times the MRHD given to adolescents. A decrease in pup body weight was observed in a pre- and post-natal development study with oral administration of methylphenidate to rats throughout pregnancy and lactation at the highest dose of 60 mg/kg/day (6 times the MRHD given to adolescents) (See **Data**). The background level of major birth defects and miscarriage for the indicated population are unknown. However, the background risk in the U.S. general population of major birth defects is 2% to 4% and of miscarriage is 15% to 20% of clinically recognized pregnancies.

**Clinical Considerations**  
**Fetal/Neonatal adverse reactions**  
CNS stimulants, such as methylphenidate hydrochloride extended-release, 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, prenatal 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, methylphenidate was administered orally at doses of up to 75 and 200 mg/kg/day, respectively, during the period of organogenesis. Malformations (increased incidence of fetal spina bifida) were observed in rabbits at the highest dose, which is approximately 52 times the maximum recommended human dose (MRHD) of 60 mg/kg/day given to adolescents on a mg/m<sup>2</sup> basis. No effects were observed in rabbits at a dose 15 times the MRHD given to adolescents on a mg/m<sup>2</sup> basis. There was also no effect for embryo-fetal development in rats with oral administration of methylphenidate to pregnant rats and rabbits during organogenesis at doses up to 10 and 15 times, respectively, the maximum recommended human dose (MRHD) of 60 mg/kg/day (6 times the MRHD given to adolescents on a mg/m<sup>2</sup> basis). However, spina bifida was observed in rabbits at a dose 52 times the MRHD given to adolescents. A decrease in pup body weight was observed in a pre- and post-natal development study with oral administration of methylphenidate to rats throughout pregnancy and lactation at the highest dose of 60 mg/kg/day (6 times the MRHD given to adolescents) (See **Data**). The background level of major birth defects and miscarriage for the indicated population are unknown. However, the background risk in the U.S. general population of major birth defects is 2% to 4% and of miscarriage is 15% to 20% of clinically recognized pregnancies.

**Risk Summary**  
Limited published literature, based on breast milk sampling from five 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 7.2. There are no reports of adverse effects on the breastfed infant and no effects on milk production. However, 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 methylphenidate hydrochloride extended-release and the potential adverse effects on the breastfed infant from methylphenidate hydrochloride extended-release or from the underlying maternal condition.

**Clinical Considerations**  
**Monitor breastfed infants for adverse reactions, such as agitation, anorexia, and reduced weight gain.**

**8.4 Pediatric Use**  
The safety and effectiveness of methylphenidate hydrochloride extended-release in pediatric patients under 6 years have not been established.

Safety and efficacy of methylphenidate hydrochloride extended-release were evaluated in a multicenter, placebo-controlled, double-blind, parallel group study in 119 children, 4 to <6 years of age with ADHD followed by a 12-month open-label extension in 44 of these children. In these studies, patients experienced high rates of adverse reactions, most notably weight loss. Comparing weights prior to initiation of methylphenidate hydrochloride extended-release (in the safety and efficacy study) to weights after 12 months of treatment (in the open-label extension), 20 of 59 patients with data (34%) had lost

**How should methylphenidate hydrochloride extended-release capsules be taken?**

- Take methylphenidate hydrochloride extended-release capsules exactly as prescribed by your healthcare provider.

- Your healthcare provider may change the dose if needed.

- Take methylphenidate hydrochloride extended-release capsules by mouth 1 time each day in the morning.

- Methylphenidate hydrochloride extended-release capsules can be taken with or without food but take it the same way each time.

- Swallow methylphenidate hydrochloride extended-release capsules whole, or if methylphenidate hydrochloride extended-release capsules cannot be swallowed whole, the capsules may be opened and sprinkled onto a tablespoonful of applesauce. Make sure to sprinkle all the medicine onto the applesauce. The methylphenidate hydrochloride extended-release capsules dose should not be divided.

- swallow all the applesauce and medicine mixture without chewing right away or within 10 minutes
  - do not** chew the applesauce and medicine mixture
  - do not** store applesauce and medicine mixture

- Your healthcare provider may sometimes stop methylphenidate hydrochloride extended-release capsules treatment for a while to check ADHD symptoms.

- If a dose of methylphenidate hydrochloride extended-release capsules is missed, do not take the dose later in the day or take an extra dose to make up for the missed dose, wait until the next morning to take the next scheduled dose.

- In case of poisoning call your poison control center at 1-800-222-1222 or go to the nearest hospital emergency room right away.**

**What should be avoided during treatment with methylphenidate hydrochloride extended-release capsules?**

Avoid drinking alcohol during treatment with methylphenidate hydrochloride extended-release capsules. This may cause a faster release of the methylphenidate hydrochloride extended-release capsules medicine.

**What are possible side effects of methylphenidate hydrochloride extended-release capsules?**

**Methylphenidate hydrochloride extended-release capsules can cause serious side effects including:**

**See “What is the most important information I should know about methylphenidate hydrochloride extended-release capsules?”**

- Painful and prolonged erections (priapism).** Priapism has happened in males who take products that contain methylphenidate. **If you or your child develop priapism, get medical help right away.**

- Circulation problems in fingers and toes (peripheral vasculopathy, including Raynaud’s Phenomenon).** Signs and symptoms may include:

- fingers or toes may feel numb, cool, painful

- fingers or toes may change color from pale, to blue, to red

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

**Call your healthcare provider right away if you have or your child have any signs of unexplained wounds appearing on fingers or toes during treatment with methylphenidate hydrochloride extended-release capsules.**

- Slowing of growth (height and weight) in children.** Children should have their height and weight checked often during treatment with methylphenidate hydrochloride extended-release capsules. Methylphenidate hydrochloride extended-release capsules treatment may be stopped if your child is not growing or gaining weight.

**The most common side effects of methylphenidate hydrochloride extended-release capsules in children 6 to 17 years of age include** stomach pain, decreased appetite, headache, trouble sleeping.

These are not all the possible side effects of methylphenidate hydrochloride extended-release capsules.

Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. You may also report side effects to Teva Pharmaceuticals at 1-888-838-2872.

**How should I store methylphenidate hydrochloride extended-release capsules?**

- Store methylphenidate hydrochloride extended-release capsules at room temperature between 68°F to 77°F (20°C to 25°C).

- Store methylphenidate hydrochloride extended-release capsules in a safe place, like a locked cabinet. Protect from moisture.

- Dispose of remaining, unused, or expired methylphenidate hydrochloride extended-release capsules by a medication 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 methylphenidate hydrochloride extended-release capsules 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 methylphenidate hydrochloride extended-release capsules in the household trash.

- Keep methylphenidate hydrochloride extended-release capsules and all medicines out of the reach of children.**

**General information about the safe and effective use of methylphenidate hydrochloride extended-release capsules.**

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

**What are the ingredients in methylphenidate hydrochloride extended-release capsules? Active ingredient:** methylphenidate hydrochloride

**Inactive Ingredients:** ammonio methacrylate copolymer type B, fumaric acid, gelatin, hypromellose 2910, methacrylic acid copolymer type A, polyethylene glycol 400, polyethylene glycol 8000, sugar spheres (which contains sucrose and corn starch), talc, titanium dioxide and triethyl citrate. The 10 mg capsules also contain FD&C Blue #1.

The 15 mg capsules also contain FD&C Yellow #6. The 20 mg capsules also contain black iron oxide. The 30 mg capsules also contain FD&C Blue#1 and FD&C Red #3. The 40 mg capsules also contain yellow iron oxide. The 50 mg capsules also contain FD&C Blue #1 and yellow iron oxide. The 60 mg capsules also contain FD&C Blue #1 and FD&C Red #40. Black printing ink SW-9008/SW-9009 contains black iron oxide, potassium hydroxide, propylene glycol, shellac, and strong ammonia solution.

**Teva Pharmaceuticals USA, Inc.,** North Wales, PA 19454

For more information, you may also contact Teva Pharmaceuticals USA, Inc. (the distributor for methylphenidate hydrochloride extended-release capsules) at 1-888-838-2872.

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Rev. A 10/2019

**How should methylphenidate hydrochloride extended-release capsuls be taken?**

- Take methylphenidate hydrochloride extended-release capsules exactly as prescribed by your healthcare provider.

- Your healthcare provider may change the dose if needed.

- Take methylphenidate hydrochloride extended-release capsules by mouth 1 time each day in the morning.

- Methylphenidate hydrochloride extended-release capsules can be taken with or without food but take it the same way each time.

- Swallow methylphenidate hydrochloride extended-release capsules whole, or if methylphenidate hydrochloride extended-release capsules cannot be swallowed whole, the capsules may be opened and sprinkled onto a tablespoonful of applesauce. Make sure to sprinkle all the medicine onto the applesauce. The methylphenidate hydrochloride extended-release capsules dose should not be divided.

- swallow all the applesauce and medicine mixture without chewing right away or within 10 minutes
  - do not** chew the applesauce and medicine mixture
  - do not** store applesauce and medicine mixture

- Your healthcare provider may sometimes stop methylphenidate hydrochloride extended-release capsules treatment for a while to check ADHD symptoms.

- If a dose of methylphenidate hydrochloride extended-release capsules is missed, do not take the dose later in the day or take an extra dose to make up for the missed dose, wait until the next morning to take the next scheduled dose.

- In case of poisoning call your poison control center at 1-800-222-1222 or go to the nearest hospital emergency room right away.**

**What should be avoided during treatment with methylphenidate hydrochloride extended-release capsules?**

Avoid drinking alcohol during treatment with methylphenidate hydrochloride extended-release capsules. This may cause a faster release of the methylphenidate hydrochloride extended-release capsules medicine.

**What are possible side effects of methylphenidate hydrochloride extended-release capsules?**

**Methylphenidate hydrochloride extended-release capsules can cause serious side effects including:**

**See “What is the most important information I should know about methylphenidate hydrochloride extended-release capsules?”**

- Painful and prolonged erections (priapism).** Priapism has happened in males who take products that contain methylphenidate. **If you or your child develop priapism, get medical help right away.**

- Circulation problems in fingers and toes (peripheral vasculopathy, including Raynaud’s Phenomenon).** Signs and symptoms may include:

- fingers or toes may feel numb, cool, painful

- fingers or toes may change color from pale, to blue, to red

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

**Call your healthcare provider right away if you have or your child have any signs of unexplained wounds appearing on fingers or toes during treatment with methylphenidate hydrochloride extended-release capsules.**

- Slowing of growth (height and weight) in children.** Children should have their height and weight checked often during treatment with methylphenidate hydrochloride extended-release capsules. Methylphenidate hydrochloride extended-release capsules treatment may be stopped if your child is not growing or gaining weight.

**The most common side effects of methylphenidate hydrochloride extended-release capsuls in children 6 to 17 years of age include** stomach pain, decreased appetite, headache, trouble sleeping.

These are not all the possible side effects of methylphenidate hydrochloride extended-release capsules.

Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. You may also report side effects to Teva Pharmaceuticals at 1-888-838-2872.

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- Store methylphenidate hydrochloride extended-release capsules at room temperature between 68°F to 77°F (20°C to 25°C).

- Store methylphenidate hydrochloride extended-release capsules in a safe place, like a locked cabinet. Protect from moisture.

- Dispose of remaining, unused, or expired methylphenidate hydrochloride extended-release capsules by a medication 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 methylphenidate hydrochloride extended-release capsules 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 methylphenidate hydrochloride extended-release capsules in the household trash.

- Keep methylphenidate hydrochloride extended-release capsules and all medicines out of the reach of children.**

**General information about the safe and effective use of methylphenidate hydrochloride extended-release capsules.**

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**Inactive Ingredients:** ammonio methacrylate copolymer type B, fumaric acid, gelatin, hypromellose 2910, methacrylic acid copolymer type A, polyethylene glycol 400, polyethylene glycol 8000, sugar spheres (which contains sucrose and corn starch), talc, titanium dioxide and triethyl citrate. The 10 mg capsules also contain FD&C Blue #1.

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- swallow all the applesauce and medicine mixture without chewing right away or within 10 minutes
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  - do not** store applesauce and medicine mixture

- Your healthcare provider may sometimes stop methylphenidate hydrochloride extended-release capsules treatment for a while to check ADHD symptoms.

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**Methylphenidate hydrochloride extended-release capsules can cause serious side effects including:**

**See “What is the most important information I should know about methylphenidate hydrochloride extended-release capsules?”**

- Painful and prolonged erections (priapism).** Priapism has happened in males who take products that contain methylphenidate. **If you or your child develop priapism, get medical help right away.**

- Circulation problems in fingers and toes (peripheral vasculopathy, including Raynaud’s Phenomenon).** Signs and symptoms may include:

- fingers or toes may feel numb, cool, painful

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**The most common side effects of methylphenidate hydrochloride extended-release capsuls in children 6 to 17 years of age include** stomach pain, decreased appetite, headache, trouble sleeping.

These are not all the possible side effects of methylphenidate hydrochloride extended-release capsules.

Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. You may also report side effects to Teva Pharmaceuticals at 1-888-838-2872.

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- Store methylphenidate hydrochloride extended-release capsules at room temperature between 68°F to 77°F (20°C to 25°C).

- Store methylphenidate hydrochloride extended-release capsules in a safe place, like a locked cabinet. Protect from moisture.

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- Keep methylphenidate hydrochloride extended-release capsules and all medicines out of the reach of children.**

**General information about the safe and effective use of methylphenidate hydrochloride extended-release capsules.**

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**Inactive Ingredients:** ammonio methacrylate copolymer type B, fumaric acid, gelatin, hypromellose 2910, methacrylic acid copolymer type A, polyethylene glycol 400, polyethylene glycol 8000, sugar spheres (which contains sucrose and corn starch), talc, titanium dioxide and triethyl citrate. The 10 mg capsules also contain FD&C Blue #1.

The 15 mg capsules also contain FD&C Yellow #6. The 20 mg capsules also contain black iron oxide. The 30 mg capsules also contain FD&C Blue#1 and FD&C Red #3. The 40 mg capsules also contain yellow iron oxide. The 50 mg capsules also contain FD&C Blue #1 and yellow iron oxide. The 60 mg capsules also contain FD&C Blue #1 and FD&C Red #40. Black printing ink SW-9008/SW-9009 contains black iron oxide, potassium hydroxide, propylene glycol, shellac, and strong ammonia solution.

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**9.5 Geriatric Use**

Clinical trials of methylphenidate hydrochloride extended-release did not include any patients aged 65 years and over. In general, dose selection for an elderly patient start at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

#### 9.6 DRUG ABUSE AND DEPENDENCE

##### 9.6.1 Controlled Substance

Methylphenidate hydrochloride extended-release capsules contain methylphenidate a Schedule II controlled substance.

##### 9.6.2 Abuse

CNS stimulants including methylphenidate hydrochloride extended-release capsules, 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, suicidal or homicidal ideation have also been observed. Abusers of CNS stimulants may chew, snort, inject, or use other unapproved routes of administration which can result in overdose and death (see *Overdose*) (10).

To reduce the abuse of CNS stimulants including methylphenidate hydrochloride extended-release capsules, assess the risk of abuse prior to prescribing. After prescribing, keep careful prescription records, educate patients and their families about abuse and proper storage and disposal of CNS stimulants, monitor for signs of abuse while on therapy, and re-evaluate the need for methylphenidate hydrochloride extended-release capsules.

##### 9.6.3 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 methylphenidate hydrochloride extended-release capsules.

##### Dependence

Physical dependence (a state of adaptation 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 methylphenidate hydrochloride extended-release capsules. Withdrawal symptoms after abrupt cessation following prolonged high-dosage administration of CNS stimulants include extreme fatigue and depression.

#### 10 OVERDOSEAGE

##### 10.1 Signs and Symptoms

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

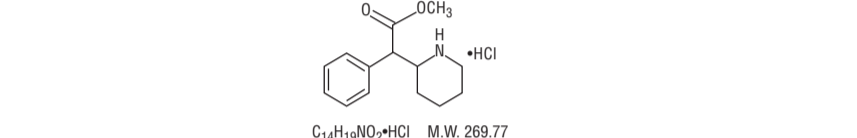
##### 10.2 Management of Overdose

Consult with a Certified Poison Control Center (1-800-222-1222) for up-to-date guidance and advice on the management of overdose with methylphenidate. Provide supportive care, including close medical supervision and monitoring. Treatment should consist of those general measures employed in the management of overdose with any drug. Consider the possibility of multiple drug overdosages. Ensure an adequate airway, oxygenation, and ventilation. Monitor cardiac rhythm and vital signs. Use supportive and symptomatic measures.

Gastric contents may be evacuated by gastric lavage as indicated. Before performing gastric lavage, control agitation and seizures if present and protect the airway. Other measures to detoxify the gut include administration of activated charcoal and a cathartic. Intensive care must be provided to maintain adequate circulation and respiratory exchange; external cooling procedures may be required for hyperthermia.

#### 11 DESCRIPTION

Methylphenidate Hydrochloride Extended-Release Capsules contain methylphenidate hydrochloride, USP a central nervous system (CNS) stimulant. Methylphenidate Hydrochloride Extended-Release Capsules contain multi layered beads, which are composed of an immediate-release layer which contains approximately 40% of the methylphenidate dose, and a controlled release layer which contains approximately 60% of the methylphenidate dose. Methylphenidate Hydrochloride Extended-Release Capsules are available in seven capsule strengths. Each extended-release capsule for once-a-day oral administration contains 10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 50 mg, or 60 mg of methylphenidate hydrochloride USP which is equivalent to 6 mg, 12.0 mg, 17.2 mg, 25.9 mg, 34.6 mg, 43.2 mg, or 51.9 mg of methylphenidate free base, respectively. Chemically, methylphenidate hydrochloride, USP is d (racemic) methyl *p*-phenyl-*z*-piperidacetate hydrochloride. Its structural formula is:



Methylphenidate hydrochloride, USP is a white to off-white, odorless, crystalline 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.

**Inactive Ingredients:** ammonio methacrylate copolymer type B, fumaric acid, gelatin, hypromellose 2910, methacrylic acid copolymer type A, polyethylene glycol 400, polyethylene glycol 8000, sugar spheres (which contains sucrose and corn starch), talc, titanium dioxide and triethyl citrate. The 10 mg capsules also contain FD&C Blue #1. The 15 mg capsules also contain FD&C Yellow #6. The 20 mg capsules also contain black iron oxide. The 30 mg capsules also contain FD&C Blue#1 and FD&C Red #3. The 40 mg capsules also contain yellow iron oxide. The 50 mg capsules also contain FD&C Blue #1 and yellow iron oxide. The 60 mg capsules also contain FD&C Blue #1 and FD&C Red #40. Black printing ink SW-9008/SW-9009 contains black iron oxide, potassium hydroxide, propylene glycol, shellac, and strong ammonia solution.

##### 12 CLINICAL PHARMACOLOGY

##### 12.1 Mechanism of Action

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

##### 12.2 Pharmacodynamics

Methylphenidate is a racemic mixture comprised of the *d*- and *l*-isomers. The *d*-isomer is more pharmacologically active than the *l*-isomer. Methylphenidate blocks the reuptake of norepinephrine and dopamine into the presynaptic neuron and increase the release of these monoamines into the extraneuronal space.

##### 12.3 Pharmacokinetics

##### Absorption

Following oral administration of methylphenidate hydrochloride extended-release in adults, plasma methylphenidate concentrations increase rapidly, reaching an initial maximum at about 2 hours, followed by gradual descending concentrations over the next 4 to 6 hours, after which a gradual increase begins, reaching a second peak at approximately 8 hours (Figure 1). The relative bioavailability of methylphenidate hydrochloride extended-release given once daily as compared to a methylphenidate immediate-release oral product given three times daily in adults is comparable. The relative bioavailability is 102%.

The pharmacokinetic profiles and parameters of methylphenidate are similar when methylphenidate hydrochloride extended-release is administered either as a whole capsule or sprinkled onto applesauce in subjects under fasting conditions (see Table 2 and Figure 1).

**Table 2: The Single Dose Pharmacokinetics of *d,l*-Methylphenidate\* ER Capsule and Sprinkle Following an Oral Dose of 80 mg Methylphenidate Hydrochloride Extended-Release Capsules under Fast Conditions in Healthy Adults**