



# Methylphenidate (METH-il-FEN-i-date) Dexmethylphenidate (DEX-meth-il-FEN-i-date)

- **Ritalin<sup>®</sup>, Methylin<sup>®</sup> (methylphenidate, immediate release)**
  - Tablets: 5 mg, 10 mg, 20 mg
  - Chewable tablets: 2.5 mg, 5 mg, 10 mg
  - Liquid: 5 mg/5 mL, 10 mg/5 mL
- **Ritalin LA<sup>®</sup> (methylphenidate, extended release)**
  - Capsules: 10 mg, 20 mg, 30 mg, 40 mg,
- **Adhansia XR<sup>®</sup> (methylphenidate, extended release)**
  - Capsules: 25mg, 35mg, 45mg, 55mg, 70mg, 85mg
- **Aptensio XR<sup>®</sup> (methylphenidate, extended release)**
  - Capsules: 10 mg, 15 mg, 20 mg, 30 mg, 40 mg, 50 mg, 60 mg
- **Concerta<sup>®</sup> (methylphenidate, extended release)**
  - Caplets: 18 mg, 27 mg, 36 mg, 54 mg
- **Relexxii<sup>®</sup> (methylphenidate, extended release)**
  - Tablets: 72mg
- **Cotempla XR-ODT<sup>®</sup> (methylphenidate, extended release orally disintegrating)**
  - Tablets: 8.6mg, 17.3mg, 25.9mg
- **Daytrana<sup>®</sup> (methylphenidate patch)**
  - Patch: 10 mg, 15 mg, 20 mg, 30 mg
- **QuilliChew ER<sup>®</sup> (methylphenidate extended release chewable)**
  - Tablet: 20 mg, 30 mg, 40mg
- **Quillivant XR (methylphenidate, extended-release oral suspension)**
  - Liquid: 25 mg/5 mL
  - Capsules: 5 mg, 10 mg, 15 mg, 20 mg, 25 mg, 30 mg, 35 mg
- **Jornay PM<sup>®</sup> (methylphenidate HCL, extended release)**
  - Capsules: 20 mg, 40 mg, 60 mg, 80 mg, 100 mg
- **Azstarys<sup>®</sup> (serdexmethylphenidate and dexmethylphenidate)**
  - Capsules: 26.1/5.2mg, 39.2/7.8mg, 52.3/10.4mg
- **Metadate ER<sup>®</sup>(discontinued)**

*If you or someone you know is in crisis, please call 911 and/or the toll-free National Suicide Prevention Lifeline at 800-273-TALK (8255) to speak with a trained crisis counselor 24/7. A help line and other resources are also available through the National Alliance on Mental Illness at [nami.org](http://nami.org).*



## What is methylphenidate or dexmethylphenidate and what does it treat?

Methylphenidate or dexmethylphenidate are prescription medications that are used to treat children over 6 years old, adolescents, and adults with attention-deficit hyperactivity disorder (ADHD). Methylphenidate and dexmethylphenidate are also known as stimulants.

Symptoms of ADHD interfere with an individual’s ability to function at school or work or in social settings and include:

- Inattention (e.g., making careless mistakes, losing things necessary for tasks)
- Hyperactivity (e.g., inability to sit still)
- Impulsivity (e.g., interrupting or intruding on others)

Hyperactivity is less common in adults. A person may have severe inattention without hyperactivity or impulsivity.

Methylphenidate or dexmethylphenidate are used in addition to non-medication treatments to manage ADHD symptoms.

## What is the most important information I should know about methylphenidate or dexmethylphenidate?

Although some symptoms may improve within days of starting methylphenidate or dexmethylphenidate, it may take several weeks before you notice the full benefits of the medication.

## Are there specific concerns about methylphenidate or dexmethylphenidate and pregnancy?

If you are planning on becoming pregnant, notify your health care provider so that he/she can best manage your medications. People living with ADHD who wish to become pregnant face important decisions, each with risks and benefits as they relate to how the illness, medications, and risks to the fetus may interact. This is a complex decision as untreated ADHD has risks to the fetus as well as the mother. Therefore, it is important to discuss this with your doctor and caregivers.

Regarding breastfeeding, caution is advised since there is limited information available about the safety of methylphenidate or dexmethylphenidate while breastfeeding.

All FDA warnings are at the end of this fact sheet. Please consult them before taking this medication.

## What should I discuss with my health care provider before taking methylphenidate or dexamethylphenidate?

- The most bothersome symptoms of your condition
- If you have thoughts of suicide
- Medications you have taken in the past for your condition, whether they were effective or caused any adverse effects
- If you experience side effects from your medications, discuss them with your provider. Some side effects may pass with time, but others may require an adjustment in the medication.
- Any other psychiatric or medical problems you have
- All other medications you are currently taking and any medication allergies you have. This will help your prescriber assess for potential drug interactions.
- Other non-medication treatment you are receiving (such as psychotherapy (i.e., talk therapy) or substance abuse treatment). Your provider can explain how these different treatments work with the medication.
- If you are pregnant, plan to become pregnant, or are breastfeeding
- If you drink alcohol or use drugs

## How should I take methylphenidate or dexamethylphenidate?

Methylphenidate or dexamethylphenidate is usually taken one to three times per day with or without food.

While the dose usually varies, your health care provider will determine the dose that is right for you based upon your response.

- Immediate release formulations should be given two or three times a day to provide symptom coverage throughout the day.
- Extended release and long-acting medications that last for 8 to 12 hours should be taken once a day in the morning. The capsules with beads may be opened if a person has trouble swallowing. The contents may be sprinkled onto a small amount of applesauce and swallowed whole immediately without chewing. Do not chew sprinkle capsules or sprinkle beads from inside the capsule. If the capsule or beads are chewed, too much medicine is absorbed at once and the effects will not last as long. Contents of the Azstarys® capsule may also be mixed in 50mL of water, taken immediately and not stored.
- The tablet shell from the Concerta® tablet is not changed in the intestines and may appear in the stool intact. It should not be given to individuals with narrowing of the intestines or in those who have undergone stomach bypass surgery. It must be taken with water or other fluid. Do not crush, chew or split the tablet.
- The methylphenidate patch should be applied to a clean, hair-free area in the morning before school and removed approximately 9 hours later for an approximate 12 hour duration of action.
- When taking Quillivant XR (methylphenidate extended release oral suspension), shake the bottle vigorously for at least 10 seconds to make sure the medication is mixed properly. Be sure to use the oral dose dispenser provided and to clean the dispenser after each use. Do not add to food or mix with liquids.
- When taking Jornay PM, doses should be administered in the evening.
- Orally disintegrating tablet remove the tablet from blister pack with dry hands by peeling back (do not push tablet through foil), and administer immediately. Allow the tablet to dissolve on the tongue without chewing or crushing; no liquid is needed.
- Chewable tablets take with full glass of water or other fluid.

Use a calendar, pillbox, alarm clock, or cell phone alert to help you remember to take your medication. You may also ask a family member or friend to remind you or check in with you to be sure you are taking you medication.

## What happens if I miss a dose of methylphenidate or dexamethylphenidate?

If you miss a dose of methylphenidate or dexamethylphenidate, take it as soon as you remember it, if it is not too close to when your next dose is due—discuss this with your health care provider. Do not double your next dose or take more than what is prescribed. Do not take a missed dose after 5:00 PM, as this may interfere with sleep.

## What should I avoid while taking methylphenidate or dexamethylphenidate?

Avoid drinking alcohol or using illegal drugs while you are taking methylphenidate or dexamethylphenidate as the beneficial effects of the medication may be decreased and adverse effects may be increased.

## What happens if I overdose with methylphenidate or dexamethylphenidate?

If an overdose occurs, whether intentional or accidental, immediate medical attention may be necessary. Call your doctor or emergency medical service (911). You may also contact the poison control center (1-800-222-1222).

Overdosing with methylphenidate or dexamethylphenidate may lead to nausea and vomiting, rapid heartbeat, abnormal heart rhythms, paranoia, hallucinations and seizures.

## What are the possible side effects of methylphenidate or dexamethylphenidate?

### Common side effects

Upset stomach, loss of appetite, insomnia, and mild anxiety

### Rare side effects

Contact your health care provider if any of the following occur while taking methylphenidate:

- Significant increases in blood pressure or heart rate, shortness of breath, fatigue
- Severe anxiety, panic attacks, mania, hallucinations, paranoia or delusions
- Severe muscle pain, weakness, signs of dehydration, or dark urine
- Prolonged or painful erection
- Changes of feeling or color in your fingers or toes

### Serious side effects

Medications like methylphenidate or dexamethylphenidate should be avoided in individuals who have a heart defect (structural abnormalities), uncontrolled high blood pressure, or a disorder of the heart or blood vessels.

Both methylphenidate and dexamethylphenidate are rarely associated with clinically significant increases in blood pressure or heart rate. Blood pressure and heart rate should be monitored before starting medication, and then weekly while adjusting the dose and then every 1 to 3 months or when side effects like “racing heart”, shortness of breath or exercise fatigue becomes problematic.

## Are there any risks for taking methylphenidate or dexamethylphenidate?

Both methylphenidate and dexamethylphenidate are Schedule II controlled substances, similar to other stimulant medications, such as amphetamine, amphetamine sulfate, mixed amphetamine salts, dextroamphetamine and lisdexamfetamine. There is a risk of physical and/or emotional dependence (addiction) when it is taken for long periods of time.

Although treatment with these medications can slow growth, many studies have shown that these changes are small, and children may catch-up with growth over time, therefore should not be a concern for most children. Height, weight, and eating habits should be discussed before treatment starts and regularly during treatment. If you are concerned about a child's growth, discuss other possible treatments with your child's doctor.

## What other medications may interact with methylphenidate or dexamethylphenidate?

Medications used to treat depression such as tricyclic antidepressants (TCA) and monoamine oxidase inhibitors can interact with these medications resulting in serious reactions, including high body temperature, high blood pressure, and seizures (convulsions). Tell your health care provider if you are beginning or have recently discontinued any of these medications.

MAOIs, including phenelzine (Nardil®), Tranylcypromine (Parnate®), and selegiline (Emsam®), should not be taken with or within 2 weeks of taking these medications. Using these medications together can be fatal.

The following medications may **increase** the levels and/or effects of methylphenidate or dexamethylphenidate:

- Atomoxetine (Strattera®), caffeine, alcohol, phenylephrine, fluoxetine (Prozac®), bupropion (Wellbutrin®), venlafaxine (Effexor®), duloxetine (Cymbalta®), Modafinil (Provigil®), and armodafinil (Nuvigil®)

Methylphenidate or dexamethylphenidate may **increase** the levels and effects of: some seizure medications such as phenobarbital or phenytoin, coumadin, and tricyclic antidepressants such as desipramine or clomipramine.

Methylphenidate or dexamethylphenidate may **decrease** the levels and effects of: some blood pressure medications such as clonidine, guanfacine, guanethidine and guanadrel.

### How long does it take for methylphenidate or dexamethylphenidate to work?

Although you may experience beneficial effects from methylphenidate or dexamethylphenidate within a few days of starting the medication, it often takes several weeks to get the full effect of the medication. Your health care provider may also need to adjust gradually the dose to find the dose that works best for you.

### Summary of Black Box Warnings

#### **Dependence**

Medications like methylphenidate or dexamethylphenidate should be given cautiously to patients with a history of drug dependence or alcoholism. Chronic abusive use can lead to marked tolerance and psychological dependence. Psychotic episodes can occur, especially when injected. Careful supervision is required during withdrawal from abusive use, since severe depression may occur. Withdrawal following chronic therapeutic use may unmask symptoms of the underlying disorder that may require follow-up.

**Important Disclosure:** This information is being provided as a community outreach effort of the American Association of Psychiatric Pharmacists. This information is for educational and informational purposes only and is not medical advice. This information contains a summary of important points and is not an exhaustive review of information about the medication. Always seek the advice of a physician or other qualified medical professional with any questions you may have regarding medications or medical conditions. Never delay seeking professional medical advice or disregard medical professional advice as a result of any information provided herein. The American Association of Psychiatric Pharmacists disclaims any and all liability alleged as a result of the information provided herein.