

Managing Stimulant Medications in Children and Adolescents

Amphetamine-based: Adderall XR®, Dexedrine®, Dexedrine Spansules®, Vyvanse®; **Methylphenidate:** Biphentin®, Concerta®, Focquest®, Ritalin®, Ritalin SR®

This handout has some suggestions to help manage side effects of stimulant medications so your child can get the most benefit from stimulant medications.



Managing Appetite

Stimulant medication reduces appetite. You can explain this to your child by saying: “This medicine plays a trick on your brain. It makes you think you are not hungry, even when your body needs food. Eating is very important. If you don’t eat, you might get a headache, a stomachache, or feel cranky and tired. If you get a headache or stomachache, the first thing you should do is eat or drink something.”

Some children will lose weight when they start treatment with stimulant medication. The strategies below can help to prevent long- and short-term weight loss.

We recommend starting these strategies when your child begins their medication:

- Children with ADHD find it boring to sit still for meals. If they must sit to eat, they might avoid eating. **Let them “graze” and eat their meals or snacks on the go, or eat while they do something else** like watch TV.
- Since this medication reduces appetite, encourage your child to eat when the impact of the medication is least. **This will be at breakfast before they take their medication, and in the evening after the medication wears off.**
- We want to encourage children who take a stimulant medication to eat as much as possible, whenever they are hungry. It is a good idea to **offer a second supper before bedtime every night**. If your child eats a full meal with fat, protein, and carbohydrate when their medication wears off, they can make up the calories they missed during the day.
- To reduce stress around meals, **try to prepare the second supper and nutritious snacks in advance**. You can freeze these items and thaw as needed, for variety.
- **Try meal replacements like Boost® or Ensure®**. Meal replacements come in many forms, including drinks and pudding. They contain the vitamins, minerals, fats, carbohydrates, and protein of a full meal. If your child eats something salty at recess or lunch, they may be thirsty. This is a good time to offer a liquid meal replacement. You can find meal replacements at your pharmacy or grocery store. If your child does not like the flavours at the store, try making smoothies at home.
- Switch to using **milk with a higher fat content**. Dairy products are a good source of nutrients for growing children.
- While children can enjoy dessert, **do not allow them to eat candy or pop before a meal**. This can reduce their appetite for nutritious food later.
- At many schools, children have free time or can go outside to play after they finish their lunch. This often leads children, especially children with ADHD, to throw out their lunch and go play. It is very helpful to have the lunch monitor or a teacher **ensure that your child eats some lunch** or drinks a Boost® or Ensure®. These instructions might be listed as a strategy in an Individual Education Plan.

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Managing Sleep

ADHD is associated with sleep difficulties and can affect your child's sleep. For example, children with ADHD may have trouble turning off their thoughts and falling asleep, be more tired during the day even when they are active, experience restless legs syndrome, which is a feeling that they need to move their legs before falling asleep.

Many children with ADHD have a history of sleep problems even before starting a stimulant medication, and stimulant medication can make these difficulties worse. A lack of sleep can also make symptoms of ADHD worse. For example, sleepiness can increase problems with focus, productivity and self-regulation.

Good sleep habits and a consistent bedtime routine are key to getting a good sleep:

- **Be consistent with sleep schedules, even on weekends.** With consistent routines, your child's brain eventually gets trained to fall asleep and wake up at the same time every day. This sleep schedule is called their circadian rhythm. Most children 5 to 13 years of age need 9 to 11 hours of sleep each night, while teens need 8 to 10 hours of sleep each night to function at their best.
- **Focus on when your child wakes up (rather than trying to make them go to bed when they are not tired).** If you want your child to go to bed early Sunday night, wake them up early Sunday morning. Start with small changes. You can work with your child and their doctor to figure out a sleep schedule.
- **Some children have to be off stimulants when they go to sleep,** and need stimulant medication for school hours only. After medication wears off, some children feel edgy, irritable, reactive, or agitated. This is called 'rebound'. You can plan your child's sleep schedule so they **go to bed six hours after the medication has left their body.** However, some children fall asleep more easily when they have taken a low dose of stimulant medication.
- **Screen activities should not happen after dinner.** This includes television, video games, computer games, smartphones, etc. Screens give off bright light that trick the brain into thinking it is daytime. When this happens, the brain stops producing melatonin, the hormone that creates sleepiness. Even without screen time, children with ADHD often have difficulty falling asleep because their brains release melatonin after a 90 minute delay. Gaming in particular has an addictive quality for many children, which makes it hard to turn the game off. It tends to excite the brain and leaves the child highly alert and resistant to bed. One helpful strategy is to **remove all of your child's electronics at night, including mobile phones.** This prevents children from texting each other at night, which is a common but harmful habit.
- **Melatonin** is the only medication proven to improve sleep in children with ADHD. Melatonin has been studied in several countries with long term follow-up. Melatonin is something the body normally makes itself and has few side effects. Children with ADHD do not produce as much melatonin as their peers, so taking melatonin can help improve their sleep. We recommend that you buy a pharmaceutical-grade melatonin product. Ask your pharmacist for a brand with a "DIN" number. **Give your child 3 to 6 mg of melatonin 30 minutes before bedtime.** This usually solves sleep issues. If your child still has trouble sleeping, your doctor may recommend another strategy or a different medication.

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General Considerations:



Starting a Stimulant Medication and Finding the Right Dose

- **Each child has a dose of medication that is right for them.** If your child does not respond to the medication and has no side effects, the doctor will increase the dose. If your child responds to a dose, but also experiences side effects that cause problems, the doctor may stay at that dose until side effects decrease. Or, the doctor may lower the dose. Follow your doctor's instructions.
- Parents often ask "how much is too much" with regard to side effects. **You may need to reduce your child's dose or stop the medication until your next visit if:**
 - Your child is too quiet, has lost their sparkle or personality, or seems "zombie-like"
 - Your child is not eating, and is losing weight quickly
 - Your child takes more than 1 hour to fall asleep or sleeps for less than 8½ hours per night
- **It is usually safe to stop this medication immediately, if needed.** You can expect ADHD symptoms to return. If you stop the medication, see your doctor to discuss the issue(s) that led you to stop.
- **You may wish to stop the medication temporarily when your child is not in school** (during holidays or summer break). This is called a "drug holiday" and can be an opportunity to see if your child still needs the medication, to promote growth and to prevent your body from getting too used to the medication. However, if your child restarts stimulant medication after a long drug holiday, they will need to re-increase their dose gradually.



Stopping a Stimulant Medication and Side Effects

- **A physical examination may be completed by your family doctor.** This is to check that there are no other medical explanations for attention-deficit/ hyperactivity disorder (ADHD) symptoms, and no medical reasons that would make treating your child with a stimulant medication risky.
- **Stimulant medication is usually started at a low dose and increased slowly each week,** until the minimum dose that works well for your child is determined.
- **Your doctor may ask your child's teacher to fill out checklists** to see how your child is responding to medication. This will help determine the lowest dose that works for your child. Your doctor may request a checklist be completed for the week prior to a return appointment or for new dose. Write the date, medication name and dose on the checklist before giving it to the teacher. Bring the checklist with you to your doctor's appointment.