



Asthma Medications: Information for Children and Families

What You Need to Know about Medicines for Asthma

What Medicines Are used to Treat Asthma?

There are two kinds of medicines:

- **Bronchodilators** are medicines that relax muscles that have tightened around the airways. They will relieve your asthma symptoms. Beta₂-agonists, theophylline, and ipratropium are bronchodilators.
- **Anti-inflammatory medicines** are medicines that reduce or reverse the swelling in the airways that caused your asthma symptoms. These medicines also prevent the swelling from starting – which keeps asthma episodes from starting. Cromolyn sodium, inhaled corticosteroids, and oral corticosteroids are anti-inflammatory medicines.

How Are Asthma Medicines Prescribed?

Each patient's asthma is different. Each patient's airways react to different triggers at different times and with different symptoms. As a result, asthma medicines must be prescribed for each person's special needs. This involves close work with your doctor and may take some time to find out which medicines work best for you.

What Is a Medicine Plan?

A medicine plan tells you what medicine to take and when to take it. It will help you take medicines the right way. There are two kinds of medicines:

1. **Bronchodilators to relieve symptoms.** If you have symptoms only every now and then (less than once or twice a week), a bronchodilator may be all you need to control asthma symptoms. If you have an asthma episode, your doctor may tell you to take more of your bronchodilator medicine. This may be enough to relieve your symptoms. However, a second medicine may be prescribed for serious episodes. Your asthma control plan will give you more information on medicines to take during asthma episodes.

If exercise is one of your asthma triggers, your doctor may prescribe a bronchodilator before exercise. This will keep an episode from starting.

2. **Anti-inflammatory medicines to reverse and prevent the swelling that cause the symptoms of asthma.** If you have symptoms more than once or twice a week, you need an anti-inflammatory medicine. You need to take this medicine EVERY DAY. If you have allergies, your doctor may also prescribe an extra dose of cromolyn, one kind of anti-inflammatory medicine. Take this dose before you are in contact with a known trigger (for example, before visiting the house of a friend or relative who has a dog).

REMEMBER: Your asthma medicine plan is not working if you still have symptoms with exercise, at rest, at night, or early in the morning. You need to talk with your doctor about your medicine plan. Your doctor may need to change the dose or the type of your medicine.

Are Asthma Medicines Safe?

Asthma medicines are safe, if taken as directed. Some people are afraid that they will become addicted to their medicines. This is not true. Others are not concerned that if medicine is taken all the time, it will no longer work. This problem occurs rarely and can be managed. Talk to your doctor if this happens.

What Should Be Done If Side Effects Occur?

- **Report all side effects to your doctor.**
- **Do not stop the medicine completely** until you talk to your doctor. This may cause your asthma to get worse.

Tips for Correct Use of Medicine

- Take your bronchodilator medicine at the earliest sign that your asthma is getting worse. Watch out for early signs (a drop in your peak flow number or feeling symptoms such as cough, chest tightness, wheezing, or being short of breath) so that asthma medicine can be started right away to relieve symptoms. An asthma episode is easier to stop if you take your medicine as soon as symptoms start. You won't have to take as much medicine that way either.

REMEMBER: Bronchodilators relieve symptoms, but they cannot reduce or prevent the swelling that causes the symptoms. When you have to use a bronchodilator a lot, it may be a sign that the swelling in your airways is getting worse. If you use a beta₂-agonist to relieve symptoms every day or if you use it more than three or four times in a single day, your asthma may be getting much worse. You probably need another kind of medicine. Discuss this with your doctor right away.

- Take your anti-inflammatory medicines exactly the way your doctor recommends, even if you are not feeling symptoms. This will reduce airway swelling and will keep asthma episodes from starting. This medicine must be taken regularly for it to work well.

Asthma Medicines For _____
(Name of Patient)

Date: _____

Medicine Dose	Times to be taken	When to Take
		Every day
		When peak flow drops 10 to 20 percent
		For symptoms or signs of asthma
		Before exercise
		Before contact with triggers
		Other

Purpose:**Special instructions (side effects, forgot medicine, etc.):**

Beta₂-agonists

How They Are Prescribed

Beta₂-agonists come in many forms. There are also many ways to take them.

Beta₂-agonists can be:

- Inhaled using a metered dose inhaler,
- Inhaled using a nebulizer,
- A powder-filled capsule that is inhaled by using a device called a dry powder inhaler,
- Swallowed as a liquid, or tablet, or
- Taken as shots.

Inhaled beta₂-agonists stop symptoms of asthma episodes and prevent asthma symptoms that are started by exercise. They are sometimes used in small doses (no more than three to four times a day) to keep daily asthma symptoms under control.

Side Effects

Side effects include rapid heartbeat, tremors, feeling anxious, and nausea. These side effects tend to leave as the body adjusts to the medicine. Serious side effects are rare, but may include chest pain, fast or irregular heart beat severe headache or feeling dizzy, very bad nausea, or vomiting. Call your doctor right away if you have any of these symptoms.

Notes

Inhaled medicines are the first choice. They begin to work within 5 minutes and have fewer side effects. The medicine goes right to the lungs and does not easily go into the rest of the body.

Liquids or tablets begin to work within 30 minutes and last as long as 4 to 6 hours.

A child as young as 5 years of age can use the metered dose inhaler. A holding chamber or spacer device (a tube attached to the inhaler) can be attached to the inhaler to make it easier to use and can help even younger children use a metered dose inhaler.

Using a nebulizer to take the medicine works the same way as using an inhaler. A nebulizer is easier to use than an inhaler. It is good for a child under age 5, for a patient who has trouble using an inhaler, or for a patient with severe asthma episodes.

Shots are sometimes used in a doctor's office or an emergency room for severe episodes. They work very fast but only last 20 minutes.

REMEMBER: Beta₂-agonists relieve symptoms, but they cannot reduce or prevent the swelling that causes the symptoms. When you have to use a beta₂-agonist a lot, it may be a sign that the swelling in your airways is getting worse. If you use a beta₂-agonist to relieve symptoms every day or if you use it more than three or four times in a single day, your

asthma may be getting much worse. You may need another kind of medicine, and you need to discuss this with your doctor right away.

Cromolyn

How It Is Prescribed

Cromolyn comes in three forms:

- A metered dose inhaler
- Liquid that is used in a nebulizer
- A powder-filled capsule that is inhaled by using a device called a dry powder inhaler

Cromolyn can be used in two ways:

- To prevent symptoms of asthma, it should be taken every day.
- To prevent symptoms of asthma that occur with exercise or contact with an asthma trigger (such as an animal), it can be taken 5 to 60 minutes before contact. The effects of the medicine last for 3 or 4 hours.

Side Effects

Cromolyn is safe to use in the treatment of asthma. The only side effect is a dry cough. You can avoid this side effect by rinsing your mouth and drinking a few sips of water after taking it.

Notes

Cromolyn cannot be used to stop an asthma episode once it has started.

Cromolyn can only be used to keep an episode from starting.

Cromolyn does not work for every patient. It may take up to 6 weeks for the medicine to take effect.

If you use an inhaled beta₂-agonist and cromolyn, take the beta₂-agonist first.

If you forget to take your cromolyn on time, take it as soon as you remember. Talk to your doctor about how to get back on your normal schedule.

Corticosteroids

How They Are Prescribed

Corticosteroids come in three forms:

- Inhaled using a metered dose inhaler
- Liquids or tablets to be swallowed (called oral corticosteroids)
- Shots

Inhaled corticosteroids are taken with a metered dose inhaler. When taken at the proper doses, they are safe medicines that work well for patients with moderate or severe asthma. They reduce the sensitivity of the airways to triggers, and they prevent swelling in the airways.

Liquid and tablet (oral) corticosteroids are used in serious asthma episodes to reduce swelling of the airways and prevent the episodes from getting even more severe. For people with moderate asthma, oral corticosteroids are sometimes used for 3 to 7 days and then stopped. People with very severe asthma may take oral corticosteroids every other morning or daily.

Shots of corticosteroids are used only in a doctor's office or emergency room for serious episodes.

Side Effects

Inhaled corticosteroids may cause a yeast infection in the mouth or bother the upper airways and cause coughing. There are two things to do to keep these things from taking place. Use a spacer device (an attachment on the inhaler) and rinse out your mouth after you take the medicine.

Using oral corticosteroids for a short time may cause different side effects. You may have a better appetite, fluid retention, weight gain, rounding of the face, changes in mood, and high blood pressure. These will stop when you

quit taking the medicine, but do not stop taking this medicine without first talking to your doctor.

Oral corticosteroids used for a long time may have bad side effects such as high blood pressure, thinning of the bones, cataracts, muscle weakness, and slower growth in children. Because of these side effects, doctors should only use oral corticosteroids for a long time if a patient's asthma is serious.

Notes

Corticosteroids are not the same as the steroids used by some athletes. Inhaled corticosteroids and oral corticosteroids taken for a short time do not damage the liver and they do not cause other long-lasting changes in the body.

Children as young as 3 years of age can use inhaled corticosteroids if a holding chamber or spacer device is attached to the metered dose inhaler. Ask your doctor about this.

When oral corticosteroids are used to treat serious asthma episodes, they take about 3 hours to start working and are most effective in 6 to 12 hours.

Talk to your doctor about what to do when you forget to take your medicine on time.

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