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Patient education: Asthma in children (The Basics)

Written by the doctors and editors at UpToDate

What is asthma?

Asthma is a condition that can make it hard to breathe. Asthma does not always cause symptoms. But when a person with asthma has an "attack" or a flare up, it can be very scary. Asthma attacks happen when the airways in the lungs become narrow and inflamed (<u>figure 1</u>). Asthma can run in families.

How can I help my child manage their asthma during the COVID-19 pandemic?

COVID-19 stands for "coronavirus disease 2019." It is caused by a virus called SARS-CoV-2. The virus first appeared in late 2019 and has since spread throughout the world.

People with COVID-19 can have fever, cough, and other symptoms. In severe cases, it can cause pneumonia and trouble breathing. Some children with asthma might be more likely to have serious symptoms if they get COVID-19. If your child has asthma, it's especially important that they take measures to avoid getting sick. This includes staying home as much as possible and washing their hands often.

If your child takes medicines to control their asthma or treat asthma attacks, it's important to **keep taking them** as usual. If your child has symptoms of COVID-19, or you think they might have been exposed to the virus, call their doctor or nurse.

The rest of this article has general information about asthma in children.

What are the symptoms of asthma?

Asthma symptoms can include:

- Wheezing, or noisy breathing
- Coughing, often at night or early in the morning, or when you exercise
- A tight feeling in the chest
- Trouble breathing

Symptoms can happen each day, each week, or less often. Symptoms can range from mild to severe. Although rare, an episode of asthma can lead to death.

Is there a test for asthma?

Yes. Your doctor might have your child do a breathing test to see how his or her lungs are working. Most children 6 years old and older can do this test. This test is useful, but it is often normal in children with asthma if they have no symptoms at the time of the test.

Your doctor will also do an exam and ask questions such as:

- What symptoms does your child have?
- How often does he or she have the symptoms?
- Do the symptoms wake him or her up at night?
- Do the symptoms keep your child from playing or going to school?
- Do certain things make symptoms worse, like having a cold or exercising?
- Do certain things make symptoms better, like medicine or resting?

How is asthma treated?

Asthma is treated with different types of medicines. The medicines can be inhalers, liquids, or pills. Your doctor will prescribe medicine based on your child's age and his or her symptoms. Asthma medicines work in 1 of 2 ways:

- **Quick-relief medicines** stop symptoms quickly. These medicines should only be used once in a while. If your child regularly needs these medicines more than twice a week, tell his or her doctor. You should also call your child's doctor if this medicine is used for an asthma attack and symptoms come back quickly, or do not get better. Some children get hyperactive, and have trouble staying still, after taking these medicines.
- Long-term controller medicines control asthma and prevent future symptoms. If your child has frequent symptoms or several severe episodes in a year, he or she might need to take these each day.

Almost all children with asthma use an inhaler with a device called a "spacer." Some children need a machine called a "nebulizer" to breathe in their medicine. The spacer and nebulizer both help get more medicine into your child's lungs, where it is needed (<u>figure 2</u>). A doctor or nurse will show you the right way to use these.

It is very important that you give your child all the medicines the doctor prescribes. You might worry about giving a child a lot of medicine. But leaving your child's asthma untreated has much bigger risks than any risks the medicines might have. Asthma that is not treated with the right medicines can:

- Prevent children from doing normal activities, such as playing sports
- Make children miss school
- Damage the lungs

What is an asthma action plan?

An asthma action plan is a list of instructions that tell you:

- What medicines your child should use at home each day
- What warning symptoms to watch for (which suggest that asthma is getting worse)
- What other medicines to give your child if the symptoms get worse
- When to get help or call for an ambulance (in the US and Canada, dial 9-1-1)

You, your child, and your doctor will work together to make an asthma action plan for your child. As part of the action plan, your child might need to use a device called a "peak flow meter." This device is used at home to see how well your child's lungs are working. Your doctor will show you and your child the right way to use a peak flow meter.

Should my child see a doctor or nurse?

See a doctor or nurse if your child has an asthma attack and the symptoms do not improve or get worse after using a quick-relief medicine. **If the symptoms are severe, call for an ambulance (in the US and Canada, dial 9-1-1)**.

Can asthma symptoms be prevented?

Yes. You can help prevent your child's asthma symptoms by giving your child the daily medicines the doctor prescribes. You can also keep your child away from things that cause or

make the symptoms worse. Doctors call these "triggers." If you know what your child's triggers are, you can try to avoid them. If you don't know what they are, your doctor can help figure it out.

Some common triggers include:

- Getting sick with a cold or the flu (that's why it's important to get a flu shot each year)
- Allergens (such as dust mites; molds; furry animals, including cats and dogs; and pollens from trees, grasses, and weeds)
- Cigarette smoke
- Exercise
- Changes in weather, cold air, hot and humid air

If you can't avoid certain triggers, talk with your doctor about what you can do. For example, exercise can be good for children with asthma. But your child might need to take an extra dose of his or her quick-relief inhaler before exercising.

What will my child's life be like?

Most children with asthma are able to live normal lives. You can help manage your child's asthma by:

- Making changes in your life to avoid your child's triggers
- Keeping track of your child's asthma
- Following the action plan
- Telling your doctor when your child's symptoms change

Sometimes, asthma gets better as children get older. They might not have asthma symptoms when they become adults. But other children can still have asthma when they grow up.

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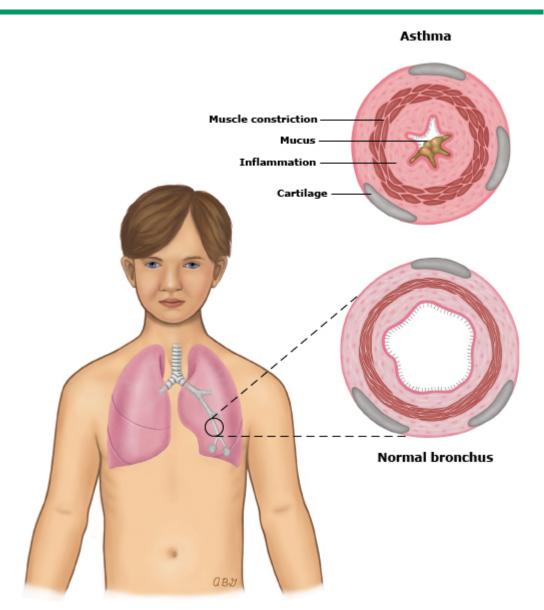
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Topic 15344 Version 11.0

GRAPHICS





During an asthma attack or flare-up, the muscles around the airways tighten (constrict), and the lining of the airways gets inflamed. Then, mucus builds up. All of this makes it hard to breathe.

Graphic 65956 Version 9.0

Using a spacer or a nebulizer



(A) This child is using a spacer with her inhaler. When she presses down on the canister, a puff of medicine is released into the spacer and sits there until the child breathes it in.(B) This child is using a nebulizer. This is a machine that turns the medicine into a fine mist. The child then breathes in the medicine through a mask.

Graphic 75577 Version 9.0

3/27/2021

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