

Asthma and Exercise for Children and Adults

Exercise is for **EVERYONE**.

Regular exercise is an important part of a healthy lifestyle.

While exercise is good for you, exercise is also a common trigger of asthma. When asthma is well controlled, you should not be limited in your activity levels. By working with your healthcare provider, you can make a plan that will allow you to feel good and take part in normal activities and exercise.



What is exercise-induced asthma?

Most people who have poorly controlled asthma will have symptoms with exercise. Some people may have asthma symptoms that are only brought on by exercise. This form of asthma is called exercise-induced asthma (or EIA). Common symptoms of asthma that can occur with exercise are coughing, wheezing, shortness of breath, chest pain or tightness, tiredness, and difficulty keeping up with others.

Asthma symptoms can occur during vigorous activity, but usually start 5-10 minutes after stopping the activity. Sometimes symptoms of asthma can return hours later. Whether exercise brings on asthma symptoms may depend on how long you are active, how intense the activity is, and the environment where you exercise. Very intense sports such as swimming, soccer, and long-distance running are most likely to cause asthma symptoms but do not always need to be avoided since the symptoms can usually be controlled.

Asthma symptoms may occur with exposure to triggers in the environment where exercise is taking place. For example, a person may breathe comfortably indoors on a basketball court, but will have asthma symptoms when running in a grassy field or ice skating in cold weather. Triggers that can be a problem include outside temperature, humidity, air pollution, pollen or molds in the air, and chemical fumes including those found at some ice rinks and pools. The triggers that affect you, may be different from triggers that affect someone else.

How can I prevent asthma problems with exercise?

To stay active with asthma, or to become more active, these steps can help:

- Identify your exercise-induced asthma triggers,
- Take your pre-treatment asthma medicine at least 15–30 min before exercising,
- Warm up before exercise, and
- End with a cool-down exercise.

How do I identify and control my exercise-induced asthma triggers?

- If cold air triggers your asthma, you can try wearing a scarf or cold weather mask over your nose and mouth to warm the air. Try to breathe through your nose when exercising.
- If you have allergies to any molds or pollens, check mold or pollen counts and avoid outdoor activity when the counts are very high.
- Avoid exercising close to traffic due to car and truck exhaust.
- Air pollution levels are usually highest during the midday or afternoon. Ozone is a common outdoor air pollutant in the summer months. When the levels are high, you should avoid outdoor activities. Check the Air Quality Index updates in your local newspaper, television or radio weather reports. Air quality information for many U.S. cities is also available on the Environmental Protection Agency (EPA) AIRNow website (<http://www.airnow.gov>).

What are pre-treatment asthma medicines?

There are several kinds of medicine that can be given before exercise to prevent symptoms during exercise.

The two main types are: bronchodilators and anti-inflammatory medicines.

Bronchodilators (medicines that open your airways by relaxing the muscles around your breathing tubes). There are short-acting and long-acting bronchodilators. Your healthcare provider will help you decide if a long-acting bronchodilator would be helpful for your asthma control and how its use might change your pre-treatment plan.

Short-acting beta-agonist bronchodilators include albuterol and levalbuterol. Ipratropium is a short-acting anti-cholinergic bronchodilator that is also used at times for exercise pre-treatment. You should take your short-acting bronchodilator 15–30 minutes before starting to exercise. It will not last longer than 4–6 hours.

Anti-inflammatory medicines (medicines used to prevent swelling in your breathing tubes). These include both corticosteroid (such as budesonide, ciclesonide, fluticasone, mometasone) and non-steroid medicines (such as montelukast and ziflutukast). Anti-inflammatory medicines are usually taken on a regular schedule to control your asthma. They are called “controller medicines”. You may not notice any immediate improvement when you use these medicines. They can take time to work. If you have regular asthma symptoms (more than twice a week during the day or twice a month at night) you should talk to your healthcare provider about using a controller medicine.

Why is it important to do warm-up and cool-down exercises?

Spending 5 to 10 minutes warming-up before exercising can help to prevent asthma symptoms during exercise. During warm up exercise, begin walking slowly and slowly increase activity or speed over 3-5 minutes. Slowly cooling down for 5 to 10 minutes after exercising can help prevent asthma symptoms that might start after exercising. Your cool down activity can be walking or stretching.

What do I do if I have symptoms when I exercise?

Even if you use your bronchodilator medicine before exercise, asthma symptoms can occur during exercise. If they do occur, you should slow down your exercising. If symptoms continue to get worse, you may need to use your quick-relief medicine like albuterol. Even if you took this medicine before exercising, it is OK to take it again to relieve your symptoms. If you feel your breathing is limiting your ability to exercise, tell your healthcare provider.

Is my fitness level important?

If you are overweight or have not been getting regular exercise, you may be out of shape or in poor physical condition. Poor conditioning can make a person feel out of breath and be confused with asthma symptoms. Lack of physical fitness makes exercise seem harder and a person may feel out of breath sooner. It takes time and effort to build physical fitness and get in good shape. Make a plan to get in good condition gradually.

Authors: Marianna Sockrider, MD, DrPH, Chris Garvey, FPN, MSN, MPA, Margie Haggerty APRN, AE-C

Reviewers: Bonnie Fahy RN, MN, Sue Lareau, RN, MS; Jonathan P. Parsons, MD, MSc

R_x Action Steps

- ✓ Make a plan to be active and exercise regularly.
- ✓ Talk with your healthcare provider before starting an exercise program to be sure you are stable enough and your and your plans for exercise are right for you.
- ✓ Do a gradual warm-up before exercise and a cool-down after exercising.
- ✓ Ask about the use of asthma medicines to help prevent breathing problems while exercising.
- ✓ Check the environment for asthma triggers before exercising.

Healthcare Provider's Contact Number:

Resources:

American Thoracic Society

- www.thoracic.org/patients
 - How is Asthma Treated?
 - Exercise and Lung Disease
 - Using Your Metered Dose Inhaler

National Heart, Lung and Blood Institute

- Asthma and Physical Activity in the School
<http://www.nhlbi.nih.gov/health/resources/lung/asthma-physical-activity>

Bam! Body and Mind—Meeting the Challenge: Don't let asthma keep you out of the game

- www.cdc.gov/bam/activity/challenge-asthma.html

Exercise-induced asthma

- <https://myhealth.alberta.ca/health/Pages/conditions.aspx?hwid=hw161742&#hw161742-sec>

Asthma UK

- <http://www.asthma.org.uk/knowledge-bank-exercise>

This information is a public service of the American Thoracic Society. The content is for educational purposes only. It should not be used as a substitute for the medical advice of one's health care provider.

