

# Asthma and Exercise

**A**lmost every child (and adult) with asthma can benefit from sports and physical activity. Also, asthma should not prevent young athletes from enjoying a full athletic career. The following is information from the American Academy of Pediatrics about asthma and exercise.

## What is asthma?

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Asthma is the most common chronic medical problem in children. Children with asthma can have different symptoms at different times. The most common problems are cough, wheeze, difficulty breathing, chest “tightness,” and chest pain. Almost all children with asthma will have one or more of these symptoms when they have a cold or with exercise.

Many symptoms are brought on with allergies or exposure to cigarette smoke, laughing, or crying. Most children with asthma have symptoms while they exercise or right after they exercise. Children with asthma symptoms only with exercise may have exercise-induced asthma.

## What causes asthma?

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The cause of asthma is unknown. Genetics may play a role—children are more likely to have asthma if other people in the family have asthma. However, many children with no family history of asthma have asthma. Asthma is also more common in children with allergies. However, some children with allergies do not have asthma and some children with asthma do not have allergies. Exposure to secondhand cigarette smoke or pollutants makes children more likely to develop asthma.

## How does exercise cause asthma symptoms?

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The symptoms of asthma are caused by narrowing of the small bronchial tubes in the lung. The narrowing is caused by inflammation and swelling within these tubes and by spasm of the muscles in the bronchial walls.

It is unknown why exercise causes airways to narrow. In general, exercise-induced asthma is most likely to occur with endurance exercise in cool, dry air. However, there are exceptions, including exercising in warm humid air with a lot of pollutants or in swimming in a poorly ventilated space with strong chlorine fumes.

## How can you prevent exercise-induced asthma?

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The first thing to do to prevent asthma symptoms with exercise is to make sure that the asthma unrelated to exercise is well controlled. For many children this means the regular use of inhaled steroid medicines and use of medicines before exercise. Ask your child’s doctor about what medicine is best for your child and make sure your child learns the proper technique for using an inhaler. If the asthma is well controlled but your child still has problems during or after exercise, let your child’s doctor know.

The following are other ways that may help prevent exercise-induced asthma:

- When exercising in the cold, wrap a scarf or mask around the face to warm up and humidify the air. Avoid exercise in the early morning or try exercising inside.
- Increase fitness level (exercise-induced asthma symptoms improve as fitness improves).
- Try a different sport or cross-training.
- Do a short warm-up exercise before the main exercise session.

**Warning:** If a child still has symptoms even with treatment, the exercise bout should be stopped. Asthma can be life-threatening if the athlete tries to play through the symptoms. Once the symptoms are controlled, the child can return to exercise.

### What problems can “look like” asthma?

Probably the most common situation that is mistaken for exercise-induced asthma is that a child is not in very good athletic shape. It is normal for all of us to breathe harder when we exercise, and this is especially true for someone who isn't very active. Sometimes this normal heavy breathing can be mistaken for asthma. The good news is that it's easy to “cure” this problem by doing more exercise!

In athletes, another problem called *vocal cord dysfunction* (VCD) can occur, and seems a lot like exercise-induced asthma. The vocal cords are located in the throat, at the opening to our trachea (windpipe), not in our lungs. They help us form words by opening and closing to let different amounts of air out of the lungs. In VCD, the vocal cords close when they are supposed to open, making it harder to breathe in air. Signs of VCD include a high-pitched noise while breathing in, breathing too fast, and a “tight” feeling in the throat. It can be very difficult to distinguish VCD from asthma and may require referral to an asthma specialist or ear, nose, and throat specialist.

### NOTES

The information contained in this publication should not be used as a substitute for the medical care and advice of your health care professional. There may be variations in treatment that your health care professional may recommend based on individual facts and circumstances.

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