

Exercising with Allergies and Asthma

Introduction

Allergies and asthma can make regular exercise and physical activity difficult, unpleasant, and sometimes impossible. However, when properly managed, these conditions should not affect your ability to exercise recreationally or even competitively. Physician evaluation and treatment, understanding what causes or worsens your allergies and/or asthma, and knowing how to exercise safely and effectively will enable you to exercise without limitation.

Environmental & Seasonal Allergies

Allergies are an abnormal response of the immune system. People who have allergies have an immune system that reacts to substances in the environment. These substances are called allergens and they are what trigger allergy symptoms. Typical allergens include pollen, ragweed, grass, mold, animal dander and dust mites. After the body has been exposed to a given allergen, the next time it is exposed to it, inflammatory chemicals such as histamine are released, causing allergy symptoms. Common allergy symptoms include sneezing, itching, watery eyes, post-nasal drip, runny or stuffy nose, and a rash. Some people have seasonal allergies that start or get worse at a particular time during the year. Two common allergic conditions are rhinitis and sinusitis.

Rhinitis is inflammation of the mucous membranes in the nose. Symptoms include sneezing, nasal discharge, itching, and congestion. Rhinitis can be allergic, nonallergic, or both. Seasonal allergic rhinitis is often referred to as hay fever.

Sinusitis is an infection of the sinus cavities caused by bacteria. It is usually preceded by a cold, allergy attack, or irritation by environmental pollutants. A cold or allergy attack causes the sinuses to become inflamed and unable to drain. This can result in congestion and infection.

Exercise-Induced Anaphylaxis (EIA)

Anaphylaxis is a rare, yet severe allergic reaction that can involve the entire body and can be life-threatening. It can result in hives, trouble breathing, low blood pressure, dizziness, loss of consciousness and even death. Anaphylaxis is a medical emergency that requires immediate medical treatment. While there are a number of causes of anaphylaxis, exercise is an unpredictable cause. Exercise-induced anaphylaxis does not occur with every exercise session, and sometimes it occurs only after eating a specific food or any food. The exact mechanism is not fully understood. However, it is known that specific cells in the body break down, releasing histamine and other chemicals, leading to anaphylaxis symptoms. If it is a form of food-dependant EIA, this process is influenced by a sensitization by a known or unknown food. There is also medication-dependant EIA, in which EIA occurs only after taking a specific medication (e.g., aspirin). Other influencing factors include extreme temperatures, a family history of EIA, and for women, the menstrual period. Typical activities known to trigger EIA include running, cycling, swimming, and even yard work. The true incidence of anaphylaxis is not known exactly and ranges from 1-3 per 10,000 population; other estimates place the number at 1-15 percent of the U.S. population at risk.



Asthma

Asthma is a chronic lung disease that is characterized by inflammation in the airways. It affects approximately 20 million Americans, with approximately 5,000 asthma-related deaths occurring each year in this country. The inflammation in the airways makes the airways smaller, making breathing more difficult. When asthma symptoms become worse than usual, it is called an asthma attack. During an asthma attack, muscles around the airways tighten up, making the airways narrower so less air flows through. Common symptoms of asthma include coughing, wheezing, difficulty breathing, and chest tightness.

There are a number of different causes or forms of asthma. A few include exercise-induced asthma and allergic asthma. Exercise-induced asthma is triggered by exercise, usually vigorous exercise such as running, and is very common in persons with chronic asthma. However, some people have only exercise-induced asthma, sometimes referred to as exercise-induced bronchoconstriction. Allergic asthma is the most common form of asthma. Allergic asthma is triggered by breathing allergens such as dust mites, pet dander, or pollens. These allergens cause the airways of the lungs to become inflamed and swollen, resulting in asthma symptoms.

Exercise Tips for Persons with Allergic Conditions and Asthma

- Consult with an allergist and /or immunologist prior to starting an exercise program. The physician may test you to determine what you are allergic to and to possibly diagnose asthma. The doctor can then effectively treat the symptoms and recommend activities to do and to avoid.
- Take all allergy and asthma medications as prescribed.
- Breathe through the nose as much as possible when exercising. The nasal passages act as natural filters and humidifiers to maintain air at proper temperatures as well as filter out allergens, pollutants, and irritants.
- Exercise indoors during extreme temperatures and when allergen counts are high; pollen counts are usually highest in the morning and increase again in the afternoon.
- When exercising indoors, keep windows and doors closed to reduce allergen exposure; try to exercise on mats rather than carpeting.
- When exercising outdoors, avoid areas that contain high concentrations of allergens and irritants (e.g., fields, trees, busy roads, factories).
- Always have your asthma rescue medication on hand when exercising; you may be instructed to take your medication shortly before exercise; use as prescribed by your physician.
- Perform a prolonged aerobic warm-up and cool-down (15 minutes each) if you have asthma; this can reduce the chances or severity of exercise-induced asthma.
- Postpone exercise if asthma symptoms are not well-controlled or if you have a cold or respiratory infection.
- If allergic to insect stings, carry prescribed epinephrine when exercising outside.
- Know that some activities such as running, cycling, and basketball are more likely to cause exercise-induced asthma; resistance training, baseball, and swimming are less likely.
- Persons with exercise-induced anaphylaxis should exercise with a partner and always carry injectable epinephrine with them.
- Know the early signs of EIA, so you can stop exercising before the symptoms progress to the later, more serious ones.



- Know what to avoid to reduce the likelihood of EIA; these include avoiding certain foods or all foods before exercise, avoiding certain medications before exercise, and be cautious in extreme temperatures.
- Talk with your doctor about the specifics of avoidance and prevention of EIA (e.g., how long to avoid foods and /or medication before exercise).

Summary

If you suffer from allergies or asthma, the first step is to see your doctor. Allergy and asthma management includes medical treatment (if needed), following proper avoidance & preventative strategies, and adhering to exercise recommendations specific to your condition(s). This will ensure safe, enjoyable, and effective exercise.

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