

Does your child experience wheezing or coughing when he or she exercises?

If your child has these symptoms, he or she may have Exercise-Induced Asthma (EIA).

Children with EIA have airways that are more sensitive to sudden changes in temperature and humidity, especially when breathing in colder, drier air which occurs during exercises.

When children with EIA exercise, they experience symptoms due to the abnormal narrowing of the airways.



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- 1 National University Cancer Institute Singapore
- 2 National University Heart Centre Singapore
- 3 Khoo Teck Puat – National University Children's Medical Institute (NUHkids) (via Kent Ridge Wing Level 2)
- MRT Kent Ridge MRT Station @ Level 1
- A Linkway @ Level 1 via MRT station (Exit A)
- B Linkway @ Level 1
- C Linkway @ Level 4
- D Linkway @ Level 1
- E Linkway @ Level 2
- TAXI Taxi Stand / Drop-Off
- Bus Stop
- Drop-off Point
- P Carpark

About the Khoo Teck Puat – National University Children's Medical Institute (KTP-NUCMI)

The KTP-NUCMI is the paediatric arm of the National University Hospital and comprises the Departments of Paediatrics, Paediatric Surgery and Neonatology. We provide comprehensive and specialised medical and surgical services for newborns, children and adolescents, and are the only public hospital in Singapore that offers paediatric kidney and liver transplant programmes. Through a generous gift from the Estate of Khoo Teck Puat, we have set up an integrated outpatient facility with medical, diagnostic and rehabilitation services.

For more information about us, visit www.nuh.com.sg/nuhkids.

Contact Us

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Exercise-Induced Asthma



I CAN!
The Children's Asthma and Allergy Network

Khoo Teck Puat – National University Children's Medical Institute

The information provided in this publication is meant purely for educational purposes and may not be used as a substitute for medical diagnosis or treatment. You should seek the advice of your doctor or a qualified healthcare provider before starting any treatment or if you have any questions related to your health, physical fitness or medical condition.

Information is correct at the time of printing (Dec 2019) and subject to revision without prior notice.

What is Exercise-Induced Asthma?

Exercised-Induced Asthma (EIA) is the abnormal narrowing of the airways in the lungs triggered by physical exercise, causing an airflow obstruction. Children with EIA have airways that are more sensitive to sudden changes in temperature and humidity.

It is important to note that not every child with asthma has EIA. It is usually an indicator that the asthma is not optimally controlled. With proper management and control of the asthma, EIA is often no longer a problem.

What are the symptoms of EIA?

Some of the symptoms include:

- Coughing
- Wheezing
- Shortness of breath
- Chest tightness or pain

These symptoms may appear during or shortly after exercising.

How do I know if my child has EIA?

EIA in children can be confirmed through an exercise challenge test. Children above 5 years old are usually able to perform this test reliably.

During the exercise challenge test, your child will run on a treadmill machine until at least 80% of his or her maximum heart rate is

achieved and maintained for more than 6 to 8 minutes. Your child's lung function will first be assessed before exercising and then at various intervals. If the lung function parameters shows a significant change with exercise, the diagnosis of EIA is confirmed.

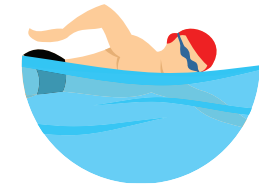


How can my child manage his or her EIA?

Optimising asthma control is usually the best approach to eliminating EIA. Please consult your doctor on how your child can manage his or her EIA better instead of avoiding exercise. Exercise is an important part of life in every growing child. It not only contributes to a healthy lifestyle but also enables the development of social and interpersonal skills. With proper asthma management, all children with EIA can and should exercise and participate in sports like every other child. They can even excel.

- If your child has asthma, the symptoms of EIA can be eliminated or reduced by optimising the asthma control. Taking additional medications such as a short acting bronchodilator inhaler 15 minutes before exercising is also helpful. These medications can also be used to relieve the EIA symptoms after they occur.

- Warming up before exercising and cooling down after exercising can help to reduce or relieve the symptoms.
- Some exercises such as swimming are less likely to trigger asthma symptoms and are a good exercise to start with while getting the asthma under better control.



Athletes with asthma

According to a study, at least 1 in 6 athletes representing the United States in the 1996 Olympic Games have a history of asthma. The prevalence of asthma amongst the 1996 US Olympians was even higher than that of the general population. The 1996 Olympians who had asthma or took asthma medications fared as well as athletes without asthma, winning team or individual medals in their Olympic event.

Singapore also has national athletes with asthma. They include Dr Benedict Tan, an Asian Games Gold medal sailor, Gerald Koh and Nicolette Teo who were both SEA Games Gold Medal swimmers as well as Eugene Teo, a water polo player who has brought home several gold medals from the SEA Games.

