Physical Activity and Asthma

About 1 in 10 Canadians, young and old, have asthma. It’s the most common long-term condition in Canadian children. Like most children, children with asthma enjoy being active indoors and outdoors and playing with their families and friends. Some studies suggest kids with asthma are less active than kids who do not have asthma. But asthma should not stop children from being active. When a young child has asthma, physical activity can cause coughing, trouble breathing and wheezing. This can make physical activity challenging for children with asthma, but it’s not impossible. Keep reading to find out more about how you can support children with asthma to be physically active every day.

What is Asthma?

Asthma looks and feels different to different people. Asthma is a chronic (long-term) condition. Asthma causes inflammation (swelling) in the airway. This can cause a child’s airway to become narrower. Asthma symptoms are not the same for every child. Common symptoms are shortness of breath, coughing or wheezing. Wheezing is a high-pitched whistling sound that happens when breathing.

While asthma is long-term, the symptoms of trouble breathing, coughing and wheezing can be short-term. Different things, called triggers, can lead to asthma symptoms. Triggers vary from child to child. Common triggers are allergens, like dust, pollen, and pets, and physical activity or exercise. There is no cure for asthma but there are lots of strategies to manage asthma, including managing the things that trigger asthma.
Active play, or exercise, is the second most common trigger of asthma. Exercise is usually a trigger when asthma is not well controlled. When taking part in active play, kids breathe through their mouths more than their noses. This means the air they breathe in hasn’t been filtered through the nose. When a child does active play or breathes in an allergen, it can cause coughing, wheezing, and shortness of breath. It’s important to determine what triggers your child's asthma symptoms. Do your best to plan physical activity for environments that are most comfortable for your child with asthma.

There is not much research about exercise or physical activity and asthma in toddlers and preschoolers. In older children with severe asthma, several weeks of exercise training helped improve asthma symptoms. The authors of this research article concluded that exercise is safe, and should be encouraged, for children with asthma. When children with asthma do regular physical activity, their bodies become more fit and they can play longer without asthma symptoms.

Exercise and physical activity can be challenging for some children with asthma. Very high intensity activity or activity in cool, dry environments may trigger asthma symptoms. Toddlers and preschoolers with asthma are encouraged to engage in active play with their family and friends. Below, we outline strategies to support physical activity in children with asthma. If your child’s doctor has prescribed a puffer for asthma attacks, be sure it is close by when your child is being active.

If you are concerned your child has asthma, consult your family doctor. Your family doctor will make sure your child has the right tests to see if they have asthma or not. They can also do allergy tests to help determine if allergens trigger your child's asthma.

**How to support young children with asthma to be physically activity**

- In hot, humid weather, plan outdoor activities for the coolest part of the day or plan active, indoor activities.
- If cold weather bothers your child’s asthma, plan outdoor activities for the warmest part of the day and dress warmly.
- If outdoor allergens, like pollen, grass and ragweed, bother your child's asthma, avoid going outside in the morning between 5 and 10am. Pollen is highest in this time on hot, windy days.
- Keep your home allergen free. Asthma can be triggered by mould and dust. Be sure to vacuum and clean your home regularly. Vacuums with HEPA filters are best to trap small particles, like pollen and dust mite dander.
- If your child’s asthma is triggered by pets, limit visiting homes that have pets.
- Go swimming! The warm, moist environment is recommended for children with asthma. Some children react to the chlorine chemicals so be sure to monitor how your child feels during and after swimming.
- If your child has trouble breathing during longer activities, plan breaks. They can rejoin the activity when they feel better.
- Follow your doctor’s instructions on when and how to take medication for asthma. If your doctor suggests taking a puffer before hard physical activity, follow these instructions. **When asthma is well controlled, your child is less likely to have symptoms when playing.**

The Child Health & Exercise Medicine Program at McMaster University is working to advance child health through excellence in research.

To learn about our current studies, visit us online at fhs.mcmaster.ca/chemp

References: Asthma Canada. Triggers: manage your environment; Exercise is Medicine Australia. Asthma and exercise; Hughes D. Childhood asthma and exercise; Lochte et al. Childhood asthma and physical activity: a systematic review with meta-analysis and Graphic Appraisal Tool for Epidemiology assessment; Philpott J et al. Physical activity recommendations for children with specific chronic health conditions: juvenile idiopathic arthritis, hemophilia, asthma and cystic fibrosis; Wanrooij VH et al. Exercise training in children with asthma: a systematic review; Williams B. Exploring and explaining low participation in physical activity among children and youth with asthma: a review.

Copyright © 2018 HAT Caldwell, NA Proudfoot & BW Timmons. Child Health & Exercise Medicine Program, McMaster University. Published and distributed by the Child Health & Exercise Medicine Program. All rights reserved. Download and use of this newsletter or its content is for non-commercial use only and must be accompanied by this copyright notice or attribution to the authors and owners must be specified.