

Considerations Regarding School Return for Children and Adolescents with Asthma A Canadian Thoracic Society Position Statement

Tania Samanta^a, Connie L. Yang^b, Dhenuka Radhakrishnan^c, M. Diane Lougheed^d,
Christopher Liciskai^e, Delanya Podgers^f, Clare Ramsey^g, Andréanne Côté^h, Masoud
Mahdavianⁱ, Francine M. Ducharme^j

^aDepartment of Pediatrics, North York General Hospital, University of Toronto, Toronto, Ontario, Canada; ^bDepartment of Pediatrics, British Columbia Children's Hospital, University of British Columbia, Vancouver, British Columbia, Canada; ^cDepartment of Pediatrics, Children's Hospital of Eastern Ontario, University of Ottawa, Ottawa, Ontario, Canada; ^dDepartment of Medicine, Queen's University, Kingston, Ontario, Canada; ^eDepartment of Medicine, Western University, London, Ontario, Canada; ^fKingston Health Sciences Centre - Kingston General Hospital, Kingston, Ontario, Canada; ^gDepartment of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada; ^hDepartment of Pulmonary Medicine and Thoracic Surgery, Institut Universitaire de Cardiologie et de Pneumologie de Québec, Laval University, Québec, Québec, Canada; ⁱDepartment of Medicine, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada; ^jDepartments of Pediatrics and of Social and Preventive Medicine, Centre Hospitalier Universitaire Sainte-Justine, University of Montreal, Montreal, Quebec, Canada.

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This document complements the Canadian Thoracic Society (CTS) Position Statement on “**Addressing therapeutic questions to help Canadian physicians optimize asthma management for their patients during the COVID-19 pandemic**” (published on April 30, 2020)¹. This position statement provides guidance to physicians and other healthcare providers regarding the school return for children and adolescents with asthma during the COVID-19 pandemic. This document was based on the consensus of the authors, who are members of the Asthma Assembly Steering Committee of the CTS. The considerations are informed by a very limited body of evidence and are subject to change as information regarding COVID-19 and its effects are further understood. We plan to update this guidance as new information becomes available, and recommend periodically checking the CTS website (<https://cts-sct.ca/covid-19/>) for updates.

For the vast majority of children and adolescents with asthma, safe physical return to school with enhanced safety measures may be anticipated and is supported.

1. Overall, there appears to be strong potential benefit and minimal evidence of risk.

- At this time, overall prevalence and community transmission rates remain low in most parts of Canada. This is a key factor in mitigating disease outbreaks in schools.^{2,3}
- To date, reports suggest that pediatric cases (<18 years) are less common worldwide and in Canada (8.9% of total reported cases in Canada).⁴
- Evidence indicates that the majority of infected children and adolescents have clinically mild disease or are asymptomatic, though there are rare (global and local) reports of significant morbidity (153 children hospitalized in Canada to date, no confirmed deaths).^{4,5}

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- Asthma patients do not appear to be at higher risk of hospitalization or requiring significant respiratory support from SARS-CoV2.⁶
- National lockdown policies, reduced access to primary healthcare and school closures have been associated with negative health consequences for children and adolescents. These include delayed diagnosis and management of non-COVID medical conditions⁷, decreased vaccination coverage⁸, reduced physical activity, and the possibility of child abuse and neglect.⁹ Return to school has the potential to provide the highest quality of education as well as improve child welfare, and emotional and physical well-being.

2. General safety measures remain important, including:

- individual practices: physical distancing, [hand hygiene](#), use of [face masks](#) as guided by current evidence and local public health recommendations, symptom screening (and isolation for children who screen positive);
- * ***The use of face masks does not worsen symptoms in children and adolescents with asthma¹⁰. While feeling dyspneic when wearing a face mask could be indicative of suboptimal asthma control¹¹, it is frequently related to inappropriate fit/and/or the novelty of wearing one. It will be important to find a comfortable fit and have the child or adolescent acclimatize to wearing one.***
- school factors: minimizing class sizes, cohorting students, strict cleaning protocols, optimizing ventilation in the classroom, efficient identification and reporting of potential cases, effective communication with families and local public health units; and
- community factors: capacity for timely testing of potential cases, contact tracing and rapid turnaround of results

3. Asthma-specific measures are also essential, including:

- maintenance of good asthma control;¹¹
- adherence to regular controller medication, including inhaled corticosteroids, with proper technique and dose count awareness;¹
- * ***In addition to supporting asthma control, inhaled corticosteroid use in asthma has been associated with decreased expression of ACE2, the receptor that permits SARS-CoV-2 entry in cells; ICS use may have a protective role against SARS-CoV-2 acquisition and morbidity.¹²***
- access to reliever therapy at school;
- regular reassessment of asthma with the child or adolescent's healthcare providers to ensure ongoing control;

- influenza vaccination for children and adolescents and immediate contacts; and
- reduction or elimination of school-based triggers (cleaning agents with irritants or perfumes, indoor and outdoor aeroallergen exposure for allergic individuals, poor indoor air quality).

4. *Children and adolescents with poorly controlled asthma may require individual consideration.*

Although there is no evidence that children and adolescents with asthma are at higher risk of getting or having severe complications related to SARS-CoV-2, based on experience with other respiratory viruses, children and adolescents with poorly controlled asthma may be at increased risk for an asthma exacerbation when exposed.¹³⁻¹⁵ These individuals may require medical review before making a decision on physical return to school.

5. *Asthma may add complexity to the assessment of a child or adolescent in school with respiratory symptoms.*

If a child or adolescent with asthma is experiencing symptoms, it may be difficult to distinguish an asthma exacerbation triggered by environmental allergies, irritants or a respiratory infection, including SARS-CoV-2. Irrespective of the trigger, asthma symptoms should be managed in accordance with the child or adolescent's asthma action plan and reviewed with their healthcare provider as needed.¹¹ Control of allergy symptoms, if present, should be optimized. The child or adolescent should be kept home from school until the etiology of respiratory symptoms is clear and should follow local school and public health protocols with regards to testing and safe school return.

6. *This is a challenging decision in a challenging time.*

We recognize that many individual, family and community-level factors will impact a family's decision regarding physical return to school for their child or adolescent, and its success. Furthermore, infection rates and transmission risk amongst children and adolescents are not well understood in the school setting, in part because widespread school re-opening is just occurring. As the pandemic continues to evolve and our understanding of the epidemiology and impact of COVID-19 on children and adolescents with asthma is advanced, these recommendations may need review in order to safely support our children at school.

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