



## Caring for Families with Children with Immune Compromise: Guidance for Family Physicians, Nurse Practitioners and Pediatricians.

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Children may be considered immune compromised due to underlying illness or due to immune suppressing medications as discussed below.

The current recommendations are:

- Practice public health measures at all time, such as practicing physical distancing and good handwashing.
- Most children with immune compromise can return to in-person learning at school and other group activities, when safety measures are in place.
- Protective self-isolation is only recommended for children with severe immune compromise, on a case-by-case basis.

In general, children are much less likely than adults to catch, spread, or experience severe illness from COVID-19. While immune compromised children are at somewhat higher risk than those who are not immune compromised, evidence to-date suggests that the risk is low at this time.

There have been very few cases of severe illness in children with immune compromise. There is no convincing evidence that the risk of COVID-19 is different for children with mild to moderate immune compromise compared to the risk of other common types of respiratory virus infections.

Attending in-person learning is critical for healthy social and emotional development, physical exercise and connecting with friends. Prevention measures are in place in all K-12 schools to reduce the risk of transmission and keep schools safe, including placing students in learning groups, enhanced cleaning and disinfecting protocols, increased opportunities for hand washing, and maintaining physical distance from those in different learning groups.

Learn more about health and safety measures being implemented in schools at:

<https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/safe-caring-orderly/k-12-covid-19-health-safety-guidelines.pdf>

Currently, everyone in B.C. is advised to take precautions to avoid infection with COVID-19. The extra precaution of keeping immune compromised children at home and away from all others (protective self-isolation) is no longer recommended in most cases. This may be different for children with severe immune compromise, such as those who: have had a recent organ transplant, are on intensive chemotherapy, are receiving high doses of steroids, or live with severe immune deficiency diseases.



## *Caring for a Child with Immune Compromise*

### **Understand the level of risk for your patient**

The child's specialist team will usually have a conversation with the family about the patient's risk of getting an infection, based on the level of immune compromise, their underlying illness and treatments, and other risk factors like pre-existing lung disease (for example asthma). However, this may or may not have been in the context of COVID-19 and may have occurred a long time ago. It is worthwhile to ask families if these discussions have occurred recently. If not, this document can provide some general guidance that is worth reviewing with the family.

The following are examples of medications that are considered immune suppressive. The medications have varying degrees of impact on child's risk and should be discussed with their specialist:

- Actemra (Tocilizumab)
- Anakinra (Kineret)
- Arava (Leflunomide)
- CellCept (MMF)
- Cyclophosphamide
- Cyclosporine
- Enbrel or Erelzi (Etanercept)
- Entyvio (Vedolizumab)
- Humira (Adalimumab)
- Ilaris (Canakinumab)
- Imuran (azathioprine)
- Methotrexate
- Myfortic (MPS)
- Orencia (Abatacept)
- High-dose prednisone
- Prograf or Advagraf (Tacrolimus)
- Remicade or Renflexis (Infliximab)
- Rituximab
- Sirolimus
- Stelara (Ustekinumab )
- Xeljanz (Tofacitinib)

Children can be categorized into three groups of infection risk:

- **Low risk:** Children whose level of immune compromise does not increase their risk of serious or rare infection.
- **Medium risk:** Children whose level of immune compromise increases their risk of infection. These children may be at higher risk to get sick with an infection or stay sick for longer, or they may have unusual infections particularly when the child has been on immune suppression medications for a long time.
- **High risk:** Children who have had a recent solid organ transplant, bone marrow transplant or who are undergoing cancer chemotherapy are typically are at high risk. These children typically do not attend school even outside of a pandemic. Other children who are considered high risk are those with primary immunodeficiencies caused by impairments in the early inflammatory response to viruses; for example, type I interferon defects, hemophagocytic lymphohistiocytosis (HLH), or severe T cell defects (severe combined immunodeficiency).



**If the child is in the low- or medium-risk category:**

Children with immune compromise are sometimes reminded to take appropriate degrees of precaution to prevent infection in higher risk situations. The vast majority of children with immune compromise will be considered low or medium risk and should take the same precautions for COVID-19 as the general population.

**If the child is in the highest-risk category and still requires protective self-isolation:**

Advise the parent/guardian that their child should stay at home and maintain physical distance from non-household members as much possible. Please connect with your patient's specialist team to provide specific information on a safety plan for that child.

For these high-risk patients, the specialist team can assist in writing letters to school and employers, in support of the child and their household members staying home. For reference, there are very few children in the province who fall into this category.

**Chronic diseases do not lead to an increased risk of severe illness from COVID-19**

Due to the importance of in-person learning for children's social and emotional health and development, the vast majority of children can safely attend school. Families of children who have significant health conditions should speak to their family physician, pediatric team or pediatrician about whether there are concerns about attending school in person.

Many children have conditions that do not lead to significant immune suppression or where there is not a significant risk of severe disease; some examples include but are not limited to:

- Asthma, when it has been well-controlled for at least three months with exposure to normal triggers, including those on inhaled corticosteroids.
- Diabetes when it is well-controlled. **Note:** According to the American Diabetes Association, while people with diabetes are not at greater risk of catching COVID-19, adults with diabetes may have more significant impact from COVID-19 (see <https://www.diabetes.org/coronavirus-covid-19/how-coronavirus-impacts-people-with-diabetes>). Additional information on students with type 1 diabetes and attending school is available on the Canadian Paediatric Society's website (visit: <https://www.cps.ca/en/blog-blogue/type-1-diabetes-and-covid-19-information-for-parents>)
- Celiac disease (according to the Canadian Celiac Association at [celiac.ca/news-events/covid19](https://celiac.ca/news-events/covid19)).

**If a child or a household member has new COVID-like symptoms:**

COVID-19 can cause **many different symptoms**, not just cough and fever. The key symptoms to watch for are fever, chills, cough, shortness of breath, loss of sense of smell or taste, nausea, vomiting and diarrhea.

Note that immune compromised children can present with minimal symptoms. As such, COVID-19 testing in a symptomatic immunocompromised child is always warranted unless the child's symptoms are clearly consistent with a previously diagnosed health condition AND are not unusual for that child.

If a household member of the child has new COVID-like [symptoms](#), they should be [tested](#) for COVID-19. The sick person should isolate (stay away) from other household members, if possible. They should isolate until they get a negative COVID-19 test result. This is especially important in families with a child who is immune compromised.



Household contacts who test positive for COVID-19 should follow the BC Centre for Disease Control's [guidelines](#) and continue to stay apart from other household members, if possible.

**If a child with immune compromise has symptoms and tests positive for COVID-19:**

In the case that a patient with symptoms and/or fever tests positive for COVID-19, it is recommended to inform the specialist. In some cases, there may be advice to hold immune compromising medications for a specified period of time. This will be on a case-by-case basis and will depend on the individual child.

*Families should continue to practice public health measures, including physical distancing and hand hygiene:*

Remind families that it is still very important to:

- Stay two metres away from people who are not in their household.
- Wash hands often with soap and water for at least 20 seconds.
  - Use alcohol-based hand rub to clean hands if sink is not available (as long as they are not visibly soiled).
- Avoid touching their faces.
- Regularly clean and disinfect frequently touched surfaces.
- Not share food, drinks, utensils, etc.
- Wear a non-medical, cloth mask or face covering in public spaces and other settings as recommended. Masks are now required for people over 12 years of age in many indoor public spaces such as at shopping malls, grocery stores, community centres, or on public transit unless the person has medical contraindications that prevent them from wearing one.

Additional information about children with immune compromise and COVID-19 is available from BCCDC at: <http://www.bccdc.ca/health-info/diseases-conditions/covid-19/priority-populations/children-with-immune-suppression>

Learn more about protective measures against COVID-19 at: <http://www.bccdc.ca/health-info/diseases-conditions/covid-19/common-questions>

Prevention and protection resources developed by the First Nations Health Authority can be found at <https://www.fnha.ca/what-we-do/communicable-disease-control/coronavirus/public>

