

Prevalent Medical Conditions

Hi, I'm Amy. My students know me as Ms. Carlyle. As teachers we know that school is about more than the subjects we teach. We care about our students overall development and well-being. And for some students, this means understanding their unique medical needs. I'd like to share some of what I've learned about four prevalent potentially life-threatening medical conditions we see in our classrooms.

Asthma, type 1 diabetes, anaphylaxis, and epilepsy. For students with one of these conditions, part of their school success, whether in academics or happiness, depends on how their medical condition is managed throughout the day. Sometimes, a student's symptoms can disrupt their learning and playing, so students need to know that they can come to us if they don't feel right, and as a part of their community of care, we have an important role to play. I've found that a little awareness goes a long way in being able to talk with students about their health needs, and help ensure they're able to safely and fully participate in school activities to the best of their ability. So, here's a little of what I've learned about what these four medical conditions mean for our students' experience at school.

First up, asthma. Asthma is a disease of the airways in the lungs and is very common among our students. It affects about one in five children in Ontario, and it's a frequent cause of school absenteeism. With asthma, the airways become inflamed and constricted, and mucus can build up, all of which causes narrowing of the air passages making it difficult to breathe. This results in the classic asthma symptoms: coughing, wheezing, shortness of breath, and chest tightness. Students' asthma symptoms can be caused by a variety of irritants, things like pollen, pets, exercise, or hot weather. Overall, it's important to understand that each student will have particular needs. For example, some students with asthma may have to modify their physical activity under certain environmental conditions, say, in very cold weather. The good news is that students with asthma can participate in all school activities if their asthma is kept under control. If they do have any symptoms they should stop the activity, use their reliever inhaler, and wait until all symptoms are gone before getting active again.

Next up, type 1 diabetes. There are several types of diabetes, and among students type 1 is the most common. About one in three-hundred students in Ontario have type 1 diabetes, and there's no known cause, cure or way to prevent it. For a student with type 1 diabetes, their pancreas doesn't produce insulin. We get glucose from food. Insulin is a hormone that regulates the levels of glucose in the blood and enables the body's cells to use this glucose for energy. Without insulin, a student's blood sugar can rise to dangerous levels. So students with type 1 diabetes would take insulin either by injection, or insulin pump. They'll regularly check their blood sugar level, and

keep it within a target range by balancing food intake, activity, and insulin. If a student has high blood sugar, he or she will probably be thirsty, need unlimited water and have to pee a lot. But, if a student has low blood sugar, the symptoms include sweating, pale skin and fatigue. Blood sugar levels can also affect a student's mood, energy, and ability to concentrate and learn. What I've learned from experience is that with knowledge and advanced planning, students with type 1 diabetes can safely and fully participate in all school activities.

The third potentially life-threatening health condition is anaphylaxis. This is the most serious type of allergic reaction. Among students, foods are the most common cause of anaphylaxis and there are about 138,000 students in Ontario with food allergies. Though there are other causes of anaphylaxis including insect stings, latex, and medications. For a student with a food allergy, eating just a small amount of the food they're allergic to, the allergen, can cause an anaphylactic reaction, usually within minutes, though symptoms can sometimes take up to several hours to appear. Symptoms of an anaphylactic reaction can vary, and may include swelling of the face, hives, a tight chest, trouble breathing, and vomiting. The student might become dizzy and lose consciousness. A person having an anaphylactic reaction is treated with an epinephrine auto-injector, which has life-saving medication. There's no cure for food allergies, so avoidance can prevent an allergic reaction. So when it comes to school activities that involve food, from snack, to lunch, and special activities, there needs to be careful advanced planning so that students with food allergies can fully participate.

Finally, epilepsy. Epilepsy is a chronic neurological condition in which disturbances in the brain's electrical activity cause seizures, and it affects about one in one hundred Canadian students. Sometimes epilepsy is linked to a brain injury, or genetics, but most of the time, the exact cause of the brain disturbance isn't known. Epilepsy is a spectrum disorder, which means that different students experience a wide range in the types and frequency of seizures, which are defined by the student's level of awareness, and physical movements during the seizure. For example seizures can range from a prolonged stare in which the student is fully aware, to a loss of awareness, physical convulsions, or their whole-body becoming stiff. While surgery is sometimes an option, most students manage their epilepsy with medication, and if possible avoiding triggers, such as stress, but seizures often occur for unknown and unpredictable reasons. For students with epilepsy the social anxiety and stigma, and sometimes even the overprotectiveness of caregivers can be more worrying than the seizures. While epilepsy, and epilepsy medication, can sometimes affect a student's learning and memory, students with epilepsy grow and develop normally and can take part in all regular school activities, including physical activity.

Like me, you might have a student in your class with one of these four potentially life-threatening medical conditions. It's important to remember that every student is unique, and this applies to their health too. The same medical condition can be very different from one student to another. This is why, as part of board-wide policies being developed in Ontario, each student with one of these four conditions will have an individualized written Plan of Care, shared with those who need it. And, if you'd like to learn more there's a link at the end of the video to an accompanying discussion guide, which includes helpful questions about these four medical conditions to start a conversation, between teachers and students, parents or guardians, and links to quick fact sheets and other useful online resources. At the end of the day, by understanding our students' health needs, we're helping ensure that they're able to safely and fully participate in school activities to the best of their ability.