

COVID-19 AND CHILDREN WITH TYPE 1 DIABETES

What is COVID-19

COVID-19 is a virus that is part of the family of coronaviruses. It spreads through droplets in the air when an infected person coughs or sneezes.

The virus can survive for days on a surface (depending on the situation) and when a person touches that surface, and then touch their mouth or nose, they become infected.

Read the guidelines for Prevention on page 2!

What are the symptoms?

- Fever
- Dry cough
- Sore throat
- Shortness of breath

If you feel like you are developing symptoms, call your doctor.



What is my risk as a person with type 1 diabetes?

- There is very little information available about COVID-19 and children with type 1 diabetes. From the evidence we have so far, it **does not** appear that children with type 1 diabetes are at a higher risk than children without diabetes.
- Having said that, data from children with type 1 diabetes and **other infections** suggest that children with poorly controlled type 1 diabetes **may** be more at risk of acquiring infections and **may** have a more complicated course.
- Research shows that adults with poorly controlled diabetes (i.e. their glucose levels are high or going up and down a lot) are at a greater risk of more severe COVID-19 disease and the higher a person's blood glucose, the higher the risk.
- The way Coronavirus affects you varies from person to person. Some may be able to recover in isolation at home, whereas others may need to be admitted to hospital.
- The virus generally causes milder disease in children than in adults.

Should I go back to school?

This decision is unique for every parent and child with diabetes. Consider your child's level of control, your school environment and your ability to learn at home. This guideline may help you make the decision (courtesy of Prof David Segal, Paediatric Endocrinologist).

If your HbA_{1c} < 7.5% OR your blood sugar is NOT higher than 10mmol/L 2-3 times a day

Your diabetes is well-controlled

Your immune system is intact.
Your risk for getting infections is similar to other children.

If you get infected it has the same effect as on children without diabetes.
Your risk for DKA is lower.

Return to school.
Refer to the *Prevention* guidelines (p. 2).
Comply with the Government's guidelines.
Comply with the school's rules.

OR

If your HbA_{1c} ≥ 10.0% OR your blood sugar is higher than 15mmol/L >2 times a day

Your diabetes is poorly controlled.

Your immune system is likely suppressed.
Your risk for getting infections may be higher.

If you get infected, it may be more severe/aggressive.
Your risk of DKA is higher.

Consider NOT returning to school - continue learning at home.
Refer to the *Prevention* guidelines (p.2)
Refer to *Manage your own diabetes* (p3)
and improve your blood sugar
Comply with the Government's guidelines.

Prevention: The prevention guidelines are aimed at preventing you from getting infected, AND preventing you from infecting others. Some infected people are asymptomatic - and spread the virus without even knowing it!

1. **Stay home** as much as possible. Do not visit family or friends.
2. **Social distancing:** stay at least 1.5 m away from other people. No hugging, handshakes or touching others - not even your family or friends.
3. **Wash your hands** often with soap and water for at least 20 seconds. Especially:
 - after being in a public place and touching door handles, shopping trolleys or elevator buttons,
 - after using the bathroom, and before preparing food.
4. If soap and water are not available, use an **alcohol-based hand sanitiser**.
5. **Do not touch** your eyes, nose, and mouth with unwashed hands.
This prevents the germs from entering your body.
6. **Cough or sneeze** in the bend of your elbow. If you use a tissue, throw it away immediately and wash your hands.
7. **Avoid close contact** with anyone who has a fever, sore throat and/or cough.
8. Clean and **disinfect all objects** and surfaces that are touched frequently: phone, door handles, pens.
9. **Do not share** food, glasses, towels, cell phones, computers, pens, or any stationery.
10. **Keep your insulin** and meter in a **protected** container and do not let it lie around - put it in your bag.
11. If you travel by bus or taxi, **wear your mask**, keep your distance, avoid touching any surfaces and wash your hands as soon as you can.
12. If you are ill with **flu-like symptoms**, stay at home and keep a distance from others at home. Do not share plates, cups, or utensils. Try to use your own bathroom.

Follow the *Sick day management guidelines* on the last page!

The incubation period (time it takes from you becoming infected and then feeling sick) is 2 - 14 days. You can have the virus and spread it to other people for up to 14 days, without showing any symptoms.

Soap and water are better at keeping your hands clean than hand sanitiser because it dissolves the fat layer around the virus. Make sure you get foam from the soap when you wash your hands.

The virus spreads mainly from person to person. If an infected person coughs or sneezes, their droplets infect people nearby.



Wear a cloth mask

- Use a mask with at least 3 layers.
- Wash your hands with soap and water for at least 20 seconds (or clean them with an alcohol-based hand sanitiser) **BEFORE** you put on the mask.
- Make sure the mask covers your nose and mouth at all times.
- Replace the mask with a new one when it is damp. Do not reuse masks if not washed.
- Touch only the strings/ear loops when you put the mask on and remove the mask.
- Place used cloth masks in a bag or bin until they can be washed with soap and hot water.
- Wash and iron the mask before you wear it again. This will kill any virus particles.

DO NOT

- **DO NOT** fiddle with the mask when you wear it.
- **DO NOT** touch your eyes, nose and mouth when removing the mask.
- **DO NOT** share your mask with another person.

Manage your own diabetes: You can only take care of your diabetes if you keep your blood glucose level within a target range. For most people with diabetes, you should aim to have your blood glucose level between 4 and 10 mmol/L.

Manage your blood glucose level



- You need to
- Test your blood glucose regularly.
 - Keep a diary of your blood glucose readings.
 - Understand your numbers.
 - Do not skip your injection. Ask a family member or carer to remind you to take your insulin.

When your reading is above or below your target, ask yourself:

- What may have caused this reading?
- Do I need to do anything differently in the future?
- How can I correct my sugar now?
- What did I learn?

Eat the right food

What you eat and how much you eat affects your blood sugar.

Make healthy choices:

- Have the correct portions of carbohydrate.
- Limit the amount of fat and oil you eat.
- Drink 8 glasses of water a day.
- Half of your plate must be vegetables.
- Ensure good quality protein intake, e.g. tinned fish, beans, soya, meat, chicken and fish.



Set yourself one small goal and when things are going well, add another goal.

Deal with your emotions

You might be feeling worried and anxious about the coronavirus and how it might affect you or your family and friends. This is normal, but the following might help:



- Limit the amount of time spent reading COVID-19 news.
- Make sure you use reliable sources of information, e.g. <https://coronavirus.datafree.co> (does not use any of your data).
- Make sure you keep in contact with your family and friends via social media and phone calls.
- Keep up with your schoolwork and hobbies to keep you busy.

Stay active

Your life is probably quite different now, but you need to stay active to help manage your diabetes. Try the following:

- Walk whenever and wherever you can.
- Listen to your favourite song and dance until your heart is beating faster.
- Exercise for 30 minutes every day, at the same time – make it part of your routine.



Set yourself one small goal and when things are going well, add another goal.

Get the flu vaccine. It is free at your local clinic. Make sure everyone in the house gets the vaccine too. All children under 12 years should make sure that they have received all their vaccinations as per the schedule.

Sick day management

Your blood sugar levels may be difficult to control as your body tries to fight the illness. Your body cannot produce insulin to cope with this, so your blood sugars rise, even when you do not eat. If you become ill, remember:

- Stay hydrated - drink plenty of water or unsweetened drinks.
- Do not skip a meal - even if you are not hungry; eat something small.
- Check your blood glucose level every 4 hours, even during the night – set an alarm to wake up and test.
- Aim for blood glucose level of 4-10 mmol/L and ketones of 0.6mmol/L (only 1+ ketones on urine test strips).
- DO NOT SKIP YOUR INSULIN.
- Treat fever with Panado (avoid using Disprin or Grandpa).
- Remember that DKA symptoms look like flu: tired, weak, aches, nausea, vomiting, and tummy ache.

Many pills and syrups affect blood glucose levels. Check with your doctor or nurse before you take any medicine.

If your blood sugar is high (>10 mmol/L) for more than 2 times:

- Drink a glucose-free drink (water or Coke Light).
- Give extra short-acting insulin (hourly) to decrease your blood glucose level. Units to take = your body weight ÷ 10. E.g. a person that weighs 20 kg takes 2 units every hour until ketones cleared).
- Increase long-acting insulin with 10-20%.
- Check for ketones using a urine or blood test. If this is positive, call your doctor or nurse!

Important: Discuss any changes to insulin dosages with your doctor or nurse.

Call your doctor or nurse, when:

- Your heart is beating fast.
- It becomes difficult to breathe.
- You stay extremely thirsty and your mouth is dry.

Have the following ready:

- Your blood glucose readings.
- Your ketone readings.
- What food and fluids you have been taking.
- A list of your symptoms.
- Your questions on how to manage your diabetes.

When you have a low (<4 mmol/L):

- Eat 15g of simple carbs, e.g.
 - ½ glass of fruit juice.
 - 2-3 teaspoons honey/syrup.
 - ½ can of regular coke.
 - 3 - 5 glucose tablets (Super C).
 - 7 jelly babies.
- Check your blood glucose level in 15 min.
- Eat a meal/snack as soon as possible.

Go to hospital immediately when:

- You are vomiting.
- Your ketones remain >1.5 mmol/L (3+ urine ketones) for more than 4 hours.
- You become very tired, confused, have fast breathing, or have a severe tummy ache.
- You do not have a way to test your ketone levels.



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