

# Pediatric T1D: Staying Safe and Healthy – COVID-19

(I am writing this update with the understanding that our medical knowledge related to the novel coronavirus and the disease it is causing worldwide, called COVID-19, is changing and expanding on a daily basis. Things that are written here may change within the next few days or weeks as we learn more about this pandemic.)

Current reports (as of Sunday, 3/29) from the Arizona Department of Health Services state that over 900 cases of COVID-19 have been reported in AZ, and there is widespread community transmission. The majority of cases have been in Maricopa County, followed by Pima County. Only about 6% of tested individuals have returned positive for the novel coronavirus.

The primary method of transmission appears to be **respiratory droplets**. Infected people may be contagious for three weeks or longer. Most cases develop within four to five days of exposure, but the incubation period could be up to 14 days. Symptoms most often include fever, fatigue, and dry cough, though a productive cough may also be present.

More than 80% of cases develop mild or moderate disease, not requiring hospitalization. About 10-15% develop severe disease, requiring admission for oxygen and supportive care. Only about 5% develop critical disease, requiring ICU care. **Mortality is very rare among non-critical cases.**

The percentage of severe cases and mortality increase with advancing age (especially >80 years) and with underlying medical conditions. About 2/3 of cases affect people age 45 years and older, and more than 3/4 of deaths occurred in those age 65 and older. **While severe cases have been reported in children, symptomatic infection in people under age 20 years is very uncommon (about 5% of cases), and recovery rates among infected youth are extremely high.**

## Highest risk groups (as reported by cdc.gov):

- People age 65 years or older
- People living in a nursing home or long-term care facility
- Immunocompromised individuals
- People with severe obesity
- People with **diabetes**, renal failure, or liver failure – *particularly if not well-controlled*
- Pregnant women

## Avoiding exposure is the key preventive measure:

Wash your hands often, using soap and water for 20 seconds, or a hand sanitizer with 60% or more alcohol; and avoid touching your eyes, nose, or mouth

### **Avoid close contact with sick (infected) individuals**

Stay home if you are sick, and wear a mask if you are sick and around other people

Cover your mouth and nose with your elbow or with a tissue when coughing or sneezing

- Wash your hands after blowing your nose

Clean and disinfect frequently touched surfaces daily

["Close contact" means being within six feet for a prolonged period, or having direct contact with infectious secretions, which include blood, sputum, and respiratory droplets.]

## **The good news with respect to children and adolescents with Type 1 Diabetes (T1D):**

While we do not have much data so far, all reports that we do have suggest that children and adolescents with T1D do not show any difference in the COVID-19 disease pattern or severity when compared to otherwise healthy children and adolescents. As of March 24, pediatric diabetes practitioners in Wuhan, China, and Italy have reported that they have not had any cases of COVID-19 in children, adolescents, or young adults (< 25 years of age) with diabetes which have required hospitalization.

There is actually more concern from diabetes care providers that patients with existing T1D will not seek appropriate care for diabetic ketoacidosis (DKA) when they need it, that new-onset diabetes symptoms may be missed/overlooked during the COVID-19 pandemic, and that situations may develop where hospital care for DKA is unavailable for non-COVID-19 patients.

Because of these factors, I recommend the following steps to make sure you or your child stay healthy during this challenging time:

- 1) Be aware of and educate others about the signs and symptoms of new-onset T1D and DKA, which include weight loss, extreme thirst, frequent urination, fatigue, fruity breath odor, and rapid, deep breathing.
- 2) Any illness can make T1D more difficult to manage and can increase the risk of DKA.
- 3) Work hard to optimize your (or your child's) diabetes control, as this greatly reduces the chance of an illness having a significant effect on blood glucose levels or causing DKA.
- 4) If you or your child become ill, it is critical to follow the sick day management instructions you have received from your T1D care provider. If you do not have such recommendations, please refer to the ISPAD guidelines for sick day management (attached).
  - a. Treat fevers with acetaminophen or ibuprofen as per package recommendations.
  - b. Increase blood glucose (BG) monitoring, or monitor your continuous glucose monitor (CGM) more closely than usual, during times of illness or infection.
  - c. Monitor for ketones.
  - d. Treat with insulin. Most often, illnesses increase insulin requirements, and more insulin than usual is typically needed to prevent/treat ketones.
  - e. Keep well-hydrated.
  - f. Continue following these steps until the illness resolves.
- 5) If your symptoms progress, or you feel that you need more help than what you can provide at home, contact your T1D care provider or go to the ED for further care.
- 6) Stay in touch with your T1D care provider/office. Many of us are offering telehealth visits to keep up with appointments while physical visits are not recommended. Most practices welcome your communication and offer a BG management line or email to help make adjustments between visits. We are still working to help keep you/your child healthy!

Stay healthy and safe in these challenging times!



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