

# Link between Diabetes and COVID-19

## Q & A



**Disclaimer:** This is general disease awareness and should not be understood as medical advice. If you experience symptoms of COVID-19 or have questions, doubts or concerns, you should contact your doctor. Always follow the advice of local authorities.

### Q1: What is COVID-19?

COVID-19 is an infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019<sup>(1,2)</sup>.

- COVID-19 is a serious public health threat. Older adults and people with pre-existing medical conditions including diabetes, hypertension, heart disease, pulmonary disorders<sup>(1-5)</sup> and obesity with related conditions<sup>(6)</sup> are at a higher risk of experiencing complications and becoming seriously ill.

### Q2: What are the symptoms of COVID-19?

The most common symptoms of COVID-19 are fever, tiredness, shortness of breath and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat or diarrhea<sup>(1-5)</sup>

- Symptoms usually start a few days after a person is infected with the virus, with most cases occurring approximately 3-7 days after exposure. In some people, it can take up to 14 days for symptoms to appear<sup>(4)</sup>
- Some people become infected but don't develop any symptoms and don't feel unwell<sup>(3)</sup>
- People are thought to be most contagious when they are most symptomatic (the sickest). Some spread might be possible before people show symptoms; there have been re-reports of this occurring with this new coronavirus, but this is not thought to be the main way the virus spreads<sup>(7)</sup>

### Q3: How does COVID-19 affect those living with diabetes?

- People with diabetes are not more likely to get COVID-19 than the general population. However, COVID-19 can cause more severe symptoms and complications in some people living with diabetes and related conditions<sup>(1,8)</sup>
- In China, where most cases have occurred so far, people with diabetes had much higher rates of serious complications and death than people without diabetes<sup>(3)</sup>. If diabetes is well-managed, the risk of getting severely sick from COVID-19 is about the same as the general population<sup>(3)</sup>
- If diabetes is well-managed, the risk of serious illness from COVID-19 is about the same as the general population<sup>(3), 2</sup>

### Q4: Is there a difference in COVID-19 risk for people with type 1 diabetes versus type 2 diabetes?

The risks are similar for people with type 1 and type 2 diabetes. People with type 1 diabetes have an increased risk of DKA (diabetic ketoacidosis) if infected with viral infection<sup>(3)</sup>.

### Q5: What anticipatory measures should people with diabetes take?

People with diabetes should have the following ready<sup>(2,3)</sup>:

- Contact information of health care provider.
- Adequate stock of medications and supplies for monitoring blood glucose at home.
- Enough stock of simple carbohydrates like regular soda, honey, jam, hard candies or popsicles
- Glucagon and ketone strips, in case of poor glycaemic control (high or low blood glucose levels).

Patients should also watch for emergency warning signs like: difficulty in breathing or shortness of breath, persistent pain or pressure in the chest, confusion or inability to arouse, bluish lips or face<sup>(3)</sup>.

## Q6: What should people with diabetes do if they develop/suspect to have COVID-19 symptoms?

- Recommendations of local authority should be followed if suspected of COVID-19 symptoms. In some countries, patients are advised to get medical attention immediately. However, it is recommended not to go to the hospital directly to avoid transmitting the virus to others and to allow priority arrangements to be made by medical personnel <sup>(1,5)</sup>
- Call the hospital/physician and provide the following:
  - o symptoms
  - o glucose and ketone reading (if available)
  - o track of fluid consumption
- Follow advice of your diabetes care team regarding medication usage.
- Stay hydrated and have unsweetened drinks on hand; and practice eating smaller portions but more often.

## Q7: What specific measures should be taken by people with diabetes if they get infected with COVID-19?

People with diabetes infected with the virus may see a deterioration in their glycaemic control during the illness. Patients should follow "sick day guidelines" to improve their diabetes decompensation <sup>(2-5)</sup>. Following measures are suggested by American Diabetes Association (ADA) in these patients <sup>(3)</sup>:

- Follow advice of the physician (or diabetes team) regarding diabetes medication and monitoring of blood glucose.
- Be aware of the signs of a hyperglycaemia (such as passing more urine than normal; especially at night), being very thirsty headaches, tiredness and lethargy).<sup>3</sup>
- Monitor blood glucose frequently throughout the day and night (generally, every 2-3 hours).
- Stay hydrated.
- If blood glucose is below 70 mg/dL (3.9 mmol/L) or below the target range, eat 15 grams of simple carbohydrates that are easy to digest (ex. honey, jam, hard candy, pop-sicles, juice or regular soda). Blood glucose should be checked in 15 minutes to ensure sugar levels are rising.
- Ketones should be checked if blood glucose levels are more than 240mg/dL (13.3 mmol/L) twice in row. Physician should be consulted immediately if have medium or high ketones (and if instructed to with trace or small ketones).
- Check with finger sticks to ensure accuracy of CGM sensors as some are impacted by ac-etaminophen (paracetamol).
- Hands should be washed, and injection/infusion and finger-stick sites should be cleaned with soap and water or rubbing alcohol.

## Q8: Are there any additional precautions that should be taken by the family/friends and caregivers of people with diabetes?

Everyone should follow the same steps that have been recommended by public health authorities to reduce exposure to virus including thoroughly washing your hands frequently, practicing good hygiene and avoiding contact with people who are unwell <sup>(1)</sup>.

## Q9: Is COVID-19 impacting access to medicines produced by Novo Nordisk?

Novo Nordisk continues to provide support to the patients worldwide. Currently, there is no impact on the current manufacturing and distribution capabilities of our products.

## Q10: Is there any impact of taking Novo Nordisk medicines in people with diabetes and get infected with COVID-19?

There is no data to indicate any impact on taking Novo Nordisk medicines (e.g. GLP-1 receptor agonists or insulins) if people with diabetes get infected with COVID-19.<sup>4</sup>

**The above Q&A has been developed using the below publicly available resources. Please visit them for further reference:**

1. WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. 2. Diabetes Canada: <https://www.diabetes.ca/resources/tools---resources/faq-about-covid-19-and-diabetes>. 3. ADA: <https://www.diabetes.org/diabetes/treatment-care/planning-sick-days/coronavirus>. 4. IDF: <https://www.idf.org/our-network/regions-members/europe/europe-news/196-information-on-corona-virus-disease-2019-covid-19-outbreak-and-guidance-for-people-with-diabetes.html>. 5. Diabetes UK: [https://www.diabetes.org.uk/about\\_us/news/coronavirus](https://www.diabetes.org.uk/about_us/news/coronavirus). 6. WOF: <https://www.worldobesity.org/news/coronavirus-disease-covid-19-outbreak-for-people-living-with-obesity>. 7. CDC: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>. 8. Obesity UK guidance: <https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-and-for-vulnerable-people/guidance-on-social-distancing-for-everyone-in-the-uk-and-protecting-older-people-and-vulnerable-adults>

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