



## Relationship between Diabetes and COVID-19 Summary

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Since the COVID-19 pandemic began, evidence has revealed that people with diabetes (PWD) are not more likely to contract COVID-19 than people without type 1 or type 2 diabetes. But if they do get COVID-19, PWD are at greater risk of developing serious symptoms and complications, like pneumonia, and they are almost three times more likely to die in hospital.

Recently, a new theory has been reported [in the media](#) that the link between diabetes and COVID-19 might be a two-way relationship: diabetes may affect the development of serious complications of the virus and the virus may affect the development of diabetes. Some researchers and clinicians are hypothesizing that people with COVID-19 may be at greater risk of developing type 1 or type 2 diabetes. The reality is that knowledge of COVID-19 is still evolving, and the rigorous research needed to fully understand this *potential* two-way relationship will take time to complete. However, there are a few things we *do* know that might help us understand what is being reported.

- If someone who has COVID-19 receives a first-time diagnosis of diabetes, it might be that they had type 2 diabetes before contracting COVID-19 and were just not aware of it. In Canada, as many as 1.5 million people may have type 2 diabetes and not know it. That's because not everyone has equal access to health care, and not everyone is aware of the warning signs of diabetes. If you're wondering if you might be at risk of type 2 diabetes, take this [quick online test](#).
- Some people who develop elevated blood sugar levels after contracting COVID-19 may only have it temporarily while their body fights the virus. Once they've recovered from COVID-19, their blood sugar levels may return to pre-illness levels. Cases like this were observed during SARS, the first coronavirus outbreak in 2002-2004, and those patients' blood sugar levels returned to normal.
- Past research proposes that respiratory viruses like the flu may trigger or accelerate the development of type 1 diabetes in some people, so it is possible that COVID-19—also a respiratory virus—might have a similar effect. Again, more research is needed to fully understand the link.

To summarize, we need more research to understand this potential two-way relationship: can COVID-19 *cause* diabetes or is it just *occurring in* some people who are also developing diabetes? Important first steps have been taken toward teasing out the true nature of this relationship. An international group of leading diabetes researchers has created a global registry of COVID-19-related diabetes. Diabetes Canada will continue to monitor the research and provide updates and interpretation of this complex, ever-evolving situation.

Meanwhile, we can all do our part to reduce our risk of contracting COVID-19 and of spreading the virus. Follow local public health guidelines, such as:

- Practicing physical distancing
- Wearing a mask
- Practicing good hand hygiene

Our FAQ about COVID-19 and diabetes can be found on our [website](#). If you have diabetes and you become unwell for any reason, it is important that you [practice sick day management](#). That includes staying in touch with your diabetes care team.