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Over the past month, Canadians have started to receive COVID-19 vaccines. The prioritization of the vaccine administration is based on recommendations from the National Advisory Council on Immunization (NACI) (1). As implementation plans are rolled out across the country, Diabetes Canada has received many questions about who should and should not receive this vaccine. Specifically, we want to address two emerging concerns related to diabetes and vaccinations for COVID-19:

1. Why are people with diabetes not included as a priority group who would receive early COVID-19 vaccinations in the context of limited supply (2) ?
2. It has been recommended that certain subpopulations should not be routinely offered the vaccine. Do people with type 1 or type 2 diabetes fit into these categories?
 - a. Those who are immunosuppressed due to disease or treatment
 - b. Individuals with an autoimmune condition
 - c. Those who are pregnant or breastfeeding
 - d. Children and adolescents up to 15 years of age

Early Priority Groups for Vaccination.

Since the beginning of the COVID-19 pandemic, the data have shown that adults with diabetes (type 1 and type 2) who contract COVID-19 are at greater risk of serious complications, like pneumonia, and they are almost three times more likely to die in hospital (4–10). A study of COVID-19 in the United Kingdom reported that one-third of in-hospital deaths occurred in people with diabetes (11). Canadian data, reported by the Public Health Agency of Canada in September 2020—is consistent with data from other countries in identifying people with diabetes as being hospitalized with more severe disease (12). Additionally, recent Canadian guidance highlights the increased risk of death due to COVID-19 for people with underlying conditions such as diabetes (13).

NACI's own publication on recommendations for key populations to receive early vaccination has identified those at high risk of severe illness and death from COVID-19—i.e., Canadians of advanced age and having other high-risk conditions—as the highest priority to receive early doses of COVID-19 vaccines (2). With other vaccine-preventable illnesses, such as influenza and pneumococcal disease where we know that people living with diabetes experience more severe disease, Canada and other countries have identified these patients as high risk (14–16). This should also be the case with COVID-19, another soon-to-be vaccine-preventable illness.

Diabetes Canada has urged health officials to update the priority list to include people with diabetes.

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Subpopulations who should not routinely be offered the COVID-19 vaccines.

NACI has recommended that certain subpopulations should not be routinely offered the vaccines either due to exclusion from clinical trials of the vaccine or small numbers of people included in the clinical trials. However, individuals living with type 1 or type 2 diabetes do not necessarily fit into these subpopulations as outlined below:

- a) *Those who are immunosuppressed due to disease or treatment:* People with type 1 or type 2 diabetes are **not** considered immunosuppressed as per the clinical trials of COVID-19 vaccines.
- b) *Individuals with an autoimmune condition:* Although type 1 (and not type 2) diabetes is an autoimmune condition, people with type 1 diabetes were **not** excluded from the vaccine trials.

In fact, 3,163 people with either type 1 or type 2 diabetes were included in the Pfizer-BioNTech phase 3 study and 2,875 people with diabetes were included in the Moderna phase 3 study. No increase in adverse events were reported in these participants (19–21). As such, Diabetes Canada interprets that the NACI recommendations regarding individuals who are immunocompromised and/or have an autoimmune disorder do not apply to people with type 1 or type 2 diabetes.

Diabetes Canada encourages people living with type 1 or type 2 diabetes to receive the COVID-19 vaccine when it is accessible, in consultation with your health care provider.

Women who are pregnant or breastfeeding were excluded from clinical trials, though some women became pregnant during the trials and experienced no adverse effects from the vaccine (19). Children with diabetes—most often, type 1 diabetes—are not at increased risk of developing COVID-19, and if they do contract the virus, their illness is milder than adults with diabetes (22). But children still have the potential to transmit the virus to others and excluding them risks excluding an entire generation from the benefits of a national immunization program. Both subgroups will be included in future vaccine clinical trials (19). In the interim, NACI recognizes that “*a complete series with a COVID-19 vaccine may be offered if a risk assessment deems that the benefits of vaccine outweigh the potential risks for the individual or for the fetus/infant (in the case of pregnancy/breastfeeding) and if informed consent includes discussion about the insufficient evidence in this population*” (3).

Diabetes Canada encourages children (and their parents) and people with diabetes who are also pregnant, to become educated on the most up-to-date public health guidance and discuss with their health care provider to make the best decision for their individual circumstance.

Vaccine side effects. Some people can experience mild reactions from vaccines, such as:

- pain, redness or swelling at the injection site, and/or
- mild fever after the vaccination.



Depending on the vaccine received, some people may also experience a mild rash, fatigue, and aches. All these are common reactions and resolve in a few days (23). If you have questions about getting the vaccine, please discuss your specific circumstance with your health care provider.

Contracting COVID-19. If you do contract COVID-19, an 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.

Sincerely,

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