



## COVID-19 Vaccine Third Doses for Immunocompromised

Updated December 2021

### Background

In September 2021, BC's Provincial Health Officer Dr. Bonnie Henry announced that those considered to be severely immunocompromised would soon be able to receive a third dose of a COVID-19 vaccine.<sup>i</sup> There is a notable difference between third 'booster' shots, and third doses that are required to complete the vaccination series for some individuals considered to be immunocompromised, immunosuppressed, or clinically extremely vulnerable. Individuals with certain medical conditions are unable to produce the same level of antibody protection, and as such have a reduced capacity in responding effectively to a vaccine.<sup>ii</sup> Therefore, individuals considered to be immunocompromised require at least a third dose of a vaccine to reach the same level of protection as the majority of other British Columbians. As of December 15, 2021, approximately 126,000 clinically vulnerable British Columbians have received their third dose of a COVID-19 vaccine.

In order to operationalize the administration of third doses, certain conditions fall within the definition of 'moderately to severely immunocompromised':<sup>iii,iv</sup>

- Receipt of solid organ transplant
- Active treatment for hematologic malignancies
- Receipt of bone marrow or stem cell transplant
- Treatment with immunosuppressant medication(s) since January 2020
- Moderate to severe primary immunodeficiency
- Active treatment for solid tumors
- Receipt of systemic therapies such as chemotherapy, hormonal, or molecular therapy
- Active treatment of radiation therapy since October 2020
- Active treatment for ongoing immunoglobulin replacement therapy
- Active treatment with dialysis and/or have severe kidney/renal disease
- HIV-positive and aged 65 or over, or perinatally acquired HIV infection
- Multiple sclerosis
- Rheumatoid arthritis
- Lupus

In BC, those who fall within these categories will be notified directly when they can register for their third dose. Alternatively, they can drop into any drop-in vaccine clinic around the province if it has been at least four weeks since their second dose. Dr. Henry has also noted that in addition to these groups, additional doses may be required for older adults living in long-term and assisted living facilities, as well as other vulnerable populations.<sup>v</sup> However, details on when this may occur have yet to be established.

This announcement from the BC Provincial Health Office comes shortly after Canada's National Advisory Committee on Immunization (NACI) provided an update to its recommendations. On September 10, NACI released updated recommendations on providing third doses of an mRNA-based COVID-19 vaccine for moderately to severely immunocompromised and immunosuppressed individuals.<sup>vi</sup> NACI officials reported that this update comes as widespread real-world evidence shows that those who are immunocompromised tend to have lower antibody production in their bodies following the typical two-dose regimen. NACI officials stated



that in order to boost the antibody protection to be somewhat similar to the rest of the population, a third dose is recommended. NACI also clarified that the third dose in these cases should not be referred to as 'booster' doses, but rather as part of the primary series of required vaccinations.<sup>vii</sup>

NACI defined 'moderately to severely immunocompromised individuals' as those who receive active treatment for solid tumour or hematologic malignancies, have received solid-organ transplants, take immunosuppressive therapy, have received chimeric antigen receptor (CAR)-T-cell therapy or hematopoietic stem cell transplants, have moderate to severe primary immunodeficiency, are at stage 3 or advanced untreated HIV infection, have acquired immunodeficiency syndrome, or actively receive treatment with certain immunosuppressive therapies.<sup>viii</sup>

Understanding that the science is evolving and that studies are currently underway to determine the necessity of additional COVID-19 shots for other groups, we know that the public will rely on nurses to help navigate the evidence and move forward with confidence when evidence-informed protocols become available. In this case, the science is clear that those who are immunocompromised or have immunodeficiencies are unable to produce the same level of antibody protection in comparison to the majority of the population. In order to help them achieve more equal levels of protection, this third dose regimen is necessary. As well, nurses know that true protection comes when everyone is protected and that protecting our most vulnerable citizens is paramount.

### Key Messages

- On September 13, 2021, BC's Provincial Health Officer Dr. Bonnie Henry announced that individuals who are 'severely immunocompromised' would soon be able to receive their third dose of a COVID-19 vaccine in order to complete their primary series of vaccination.
- Dr. Henry noted that in addition to immunocompromised groups, British Columbians can likely expect to see additional doses offered to older adults in long-term and assisted-living facilities in the coming months.
- On September 10, 2021, NACI released an update stating that third doses of COVID-19 vaccines are recommended for certain immunocompromised and immunosuppressed individuals.
- At a press briefing on December 15, 2021, Minister Dix announced that more than 126,000 clinically extremely vulnerable British Columbians had received their third dose of a COVID-19 vaccine.
- Nurses will continue to follow and share evidence-based information with respect to third doses of COVID-19 vaccines.
- Nurses are at the forefront of vaccine delivery and will continue to safeguard the public trust by relying on evidence-based protocols, ensuring that critical information is communicated to the public, and in recognizing the importance of global vaccine equity.

### Further Reading/Resources

- [NACI rapid response: Additional dose of COVID-19 vaccine in immunocompromised individuals following 1- or 2- dose primary series](#)
- [Province of BC: COVID-19 Immunization Plan](#)
- [BCCDC: COVID-19 Vaccination at a Glance](#)
- [COV-Boost: Evaluating COVID-19 Vaccine Boosters](#)



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<sup>i</sup> Global News. B.C. officials announce severely immunocompromised people will receive third dose of vaccine. September 13, 2021. <https://globalnews.ca/video/8188095/b-c-officials-announce-severely-immunocompromised-people-will-receive-third-dose-of-vaccine>

<sup>ii</sup> Vikander, Tessa. *CTV News*. B.C. residents who are 'severely immunocompromised' offered 3<sup>rd</sup> dose of COVID-19 vaccine. September 13, 2021. <https://bc.ctvnews.ca/b-c-residents-who-are-severely-immunocompromised-offered-3rd-dose-of-covid-19-vaccine-1.5584117>

<sup>iii</sup> Vikander, Tessa. *B.C. residents who are 'severely immunocompromised' offered 3<sup>rd</sup> dose.*

<sup>iv</sup> McSheffrey, Elizabeth. *Global News*. B.C. will offer third COVID-19 shot to 100,000 immunocompromised residents. October 5, 2021. <https://globalnews.ca/news/8245423/third-covid-shot-offered-to-immunocompromised-bc-residents/>

<sup>v</sup> Little, Simon and Chernecki, Ted. *Global News*. BC mulls COVID-19 vaccine booster shots for immunocompromised, vulnerable seniors. September 2, 2021. <https://globalnews.ca/news/8160755/bc-covid-booster-shots/>

<sup>vi</sup> NACI. Additional dose of COVID-19 vaccine in immunocompromised individuals following 1- or 2- dose primary series. <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/statement-september-10-2021-additional-dose-covid-19-vaccine-immunocompromised-following-1-2-dose-series.html>

<sup>vii</sup> Pelley, Lauren. *CBC*. Advisory body recommends 3<sup>rd</sup> COVID-19 vaccine dose for some immunocompromised Canadians. September 10, 2021. <https://www.cbc.ca/news/health/third-covid-vaccine-dose-guidance-1.6171144>

<sup>viii</sup> Pelley, Lauren. *CBC*. *Advisory body recommends 3<sup>rd</sup> COVID-19 vaccine dose.*