

Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health



Clinical Guidance on COVID-19 Vaccines for People with Splenectomy or Functional Asplenia

This guidance is intended for health-care providers. It is based on known evidence as of April 18, 2023.

Asplenia can be anatomical (i.e. splenectomy) or functional (i.e., resulting from conditions that cause atrophy, infarction, infiltration, or engorgement of the spleen).^{1,2} Patients who have had a splenectomy or have functional asplenia are immunocompromised and are at increased risk for severe and overwhelming bacterial infections, particularly from encapsulated bacteria. These bacterial infections are more likely to occur in patients with viral infections.

Is COVID-19 immunization recommended for patients with splenectomy or functional asplenia?

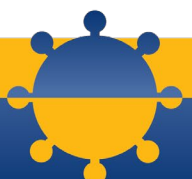
COVID-19 vaccines should be encouraged for patients who have had a splenectomy or who have functional asplenia and are not contraindicated, including those who have had COVID-19 infection.

This recommendation is based on the NACI [recommendation](#) which has stated that immunosuppressed individuals should be offered the vaccine if the benefits of vaccine outweigh the potential risks.³

Are COVID-19 vaccines efficacious and safe for people with splenectomy or functional asplenia?

People who have had a splenectomy or who have functional asplenia are considered immunocompromised, and people immunocompromised due to disease or treatment were excluded from the clinical trials.⁴⁻⁸ Therefore, data on whether COVID-19 vaccines are efficacious in patients who have had a splenectomy or have functional asplenia is currently limited. As with most vaccines, there is a potential for blunted immune response in individuals who are immunocompromised due to their disease or treatment.³

As a matter of informed consent, patients who are immunocompromised should be informed about the possibility that individuals who are immunosuppressed may have a diminished immune response to any of authorized COVID-19



vaccines.³ However, they should also be reassured that expert consensus is that immunization should proceed as the benefits outweigh the risks. There are data to suggest that the currently available COVID-19 vaccines have efficacy.⁹

Following immunization, patients should continue with COVID-19 precautionary measures as outlined in the current advice from the [B.C. Centre for Disease Control](#).

Are there any specific contraindications or exceptions for people with splenectomy or functional asplenia?

Individuals who have had a severe allergic reaction to an ingredient of one type of COVID-19 vaccine are still able to receive future doses of the other type of vaccine.¹⁰ BCCDC has a list of the individual components and their purpose in the vaccines. For a complete list of components in the vaccine, consult the vaccine monographs found at:

www.bccdc.ca/health-info/diseases-conditions/covid-19/covid-19-vaccine/vaccines-for-covid-19.

For individuals with a history of anaphylactic reaction to a previous dose of an mRNA COVID-19 vaccine, re-vaccination (i.e., administration of a subsequent dose in the series when indicated) may be offered with the same vaccine or the same mRNA platform if a risk assessment deems that the benefits outweigh the potential risks for the individual and if informed consent is provided. Prior to revaccination, consultation with an allergist or another appropriate physician (e.g., Medical Health Officer) is advised. If re-vaccination is going ahead, vaccine administration should be done in a controlled setting with expertise and equipment to manage anaphylaxis, with an extended period of observation of at least 30 minutes after re-vaccination.

Health Canada continues to monitor any adverse events following immunization through their post-authorization surveillance [process](#).

Other than allergy, there are no specific contradictions or exceptions for people who have had a splenectomy or who have functional asplenia.

Currently, it is recommended that COVID-19 vaccines can be given concomitantly with, or any time before or after any other inactivated vaccine.¹¹⁻¹⁴

For patients with these conditions due to a haematological malignancy, sickle cell disease, or thalassemia, please refer to the clinical guidance document for those conditions on the BCCDC website.

Are there specific recommendations or considerations for safe and/or most effective administration?

There are no known studies regarding the timing of COVID-19 vaccine in patients with a splenectomy or who have functional asplenia.



Based on the 2013 Infectious Diseases Society of America [guidelines](#), immunization timing is recommended as follows for asplenic patients¹⁵:

- Elective splenectomy patients should start immunizations approximately 10-12 weeks prior to surgery, so series can be completed at least 14 days prior to splenectomy
- If vaccine series cannot be completed prior to splenectomy, series can be resumed 14 days after surgery for most patients.
- It is not clear how COVID-19 and other immunizations for encapsulated organisms should be sequenced or timed. COVID-19 vaccines can be administered concomitantly with, or any time before after, any other live or inactivated vaccine. The risk of other causes of sepsis are high in patients with asplenia and in the case of emergency surgery, other vaccines should probably be prioritized.

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Authors

Dr. Kevin Song, Interim Medical Director Leukemia/BMT Program, Director Hematology Research Program, Clinical Professor Division of Hematology, University of British Columbia.

Dr. Helen Anderson, Medical Director, Provincial Systemic Program, BC Cancer

Dr. Sujaatha Narayanan, MBBS, MRCP, FRCPath Clinical Assistant Professor, Division of Hematology, Department of Medicine, University of British Columbia

Dr. Alissa Wright, BSc, MD, FRCPC, MSc; Head, Division of Infectious Diseases, Vancouver General Hospital; Clinical Assistant Professor, Division of Infectious Disease, Department of Medicine, University of British Columbia

Mario de Lemos, B.Sc (Pharm), M.Sc (Oncol), PharmD, Professional Practice Leader, Provincial Pharmacy, BC Cancer

Fatima Ladha, B.Sc, B.Sc (Pharm), PharmD

Dr. Stephen Nantel, MD, FRCPC, Head, Division for Hematology, University of British Columbia; Clinical professor, Division of Hematology, Department of Medicine, University of British Columbia

