

Anatomic or Functional Asplenia

Recommended vaccines for those with anatomic or functional asplenia ^{A, B}	
All routine inactivated vaccines	Immunize according to routine schedule.
Hib vaccine	All individuals 5 years of age and older require 1 dose regardless of immunization history. ^C
Meningococcal quadrivalent conjugate vaccine	Meningococcal quadrivalent conjugate vaccine for those 2 months of age and older. (This vaccine to be given in place of meningococcal C conjugate vaccine in the routine childhood immunization schedule). Reinforcement dose(s) are recommended. ^D
Pneumococcal vaccine	Conjugate and/or polysaccharide vaccine depending on age. Requires once only revaccination with polysaccharide vaccine.
Influenza vaccine	Immunize yearly (all those 6 months of age and older). Inactivated influenza vaccine should be used.
MMR vaccine ^E	Refer to Immunization with Inactivated and Live Vaccines . Use Referral Form for MMR Vaccination . ^F
Varicella vaccine ^E	Refer to Immunization with Inactivated and Live Vaccines . Use Referral Form for Varicella Vaccination . ^F Separate doses by 12 weeks.
Rotavirus vaccine	Refer to Immunization with Inactivated and Live Vaccines . Use Referral Form for Rotavirus Vaccination .

Unimmunized individuals who have had a splenectomy in the past or who have functional hyposplenism should be immunized as soon as their condition is identified.

Asplenia or hyposplenism may be congenital, surgical, or functional. A number of conditions may lead to functional asplenia (e.g., sickle cell anemia, thalassemia major, essential thrombocytopenia, celiac disease, inflammatory bowel disease, and rheumatoid arthritis). Individuals with any of these conditions need further investigation to determine whether their pre-existing condition is compromising their spleen function.

^A For specific vaccine schedule information, refer to [Part 4 - Biological Products](#).

^B To maximize vaccine response, vaccine(s) should be given at least 14 days prior to elective splenectomy, or if not possible 14 or more days post-splenectomy. However, administration of vaccines within 14 days of splenectomy is not contraindicated. If there is concern that the patient may not present later for immunization, give vaccine(s) before discharge.

^C With the exception of Hib vaccine, where 1 dose is recommended regardless of immunization history, asplenic individuals do not require re-immunization.

^D If individual was previously vaccinated at 7 years of age and older: give 5 years after previous dose. If individual was previously vaccinated at 6 years of age and under: give 3 years after previous dose. Re-immunize every 5 years as long as medical condition exists.

^E MMR and varicella vaccines are recommended depending on immunization history, age, and susceptibility. Use separate MMR and varicella vaccines and separate by 4 weeks. MMRV vaccine is contraindicated in this population.

^F If client had splenectomy following a traumatic injury many years previously and no longer has a medical specialist, obtain referral for immunization with MMR and varicella vaccines from client's family physician, nurse practitioner or the Medical Health Officer.

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The spleen plays an important role in the body's immune system, including:

- Filtering antigen-antibody complexes and bacteria
- Site for immunoglobulin M (IgM) production, antigen presentation to T cells and memory B cell differentiation
- Production site for a peptide that promotes phagocytosis

An individual with decreased or no spleen function is at increased risk for infection from a variety of pathogens, particularly those caused by encapsulated polysaccharide bacteria (e.g., pneumococcal, meningococcal, and Hib bacteria).

Children who have sickle cell disease or have had a splenectomy are at increased risk for fulminant pneumococcal sepsis associated with high mortality.