



Vaccine Schedules for Children with Sickle Cell Disease and Asplenia

Recommendations for vaccines with pneumococcal, meningococcal, Haemophilus influenzae type B, Hepatitis B and influenza vaccines. All other routine immunizations should also be kept up to date. Vaccines should be completed 14 days prior to splenectomy. If this is not possible, vaccines should be given 14 days post splenectomy. If compliance after discharge is not assured, then vaccines should be given before discharge from the hospital even if less than 14 days has elapsed since splenectomy.

TABLE 1. Vaccines recommended according to age at diagnosis of asplenia or hyposplenia

Age at which asplenia determined and Immunizations up-to-date for age	Infant less than 12 months				12 to less than or equal to 24 months	Greater than or equal to 2 years	Supplementary dosing
Pneumococcal vaccine							
PCV13 (Pevnar) (4 doses in young children)	✓ 2 mos	✓ 4 mos	✓ 6 mos	✓ 12 to 15 mos	✓✓ 2 doses 8 weeks apart	✓ 1 dose if no prior PCV vaccine or only prior PCV7 or PCV10	
Pneumococcal polysaccharide vaccine (PPV23)						✓ 1 dose (at least 8 weeks after PVC)	1 additional dose 5 years after first dose of PPV23*
Neisseria meningitidis serogroups A, C, W, Y conjugated vaccine							
Men ACWY-CRM (Menveo) OR	✓	✓	✓	✓	✓✓ 2 doses 8 weeks apart	✓✓ 2 doses 8 weeks apart	✓ every 5 years
Men ACWY-T (Nimenrix) OR	✓	✓		✓ 12 mos	✓✓ 2 doses 8 weeks apart	✓✓ 2 doses 8 weeks apart	✓ every 5 years
Men ACWY-D (Menactra)			9 mos ✓	✓ 11 mos AND ✓ 12 to 15 mos	✓✓ 2 doses 8 weeks apart	✓✓ 2 doses 8 weeks apart	✓ every 5 years
Neisseria meningitidis serogroup B vaccine							
4 component 4CMenB (Bexero) OR	✓✓ or ✓ 2 or 3 doses 8 weeks apart (2-5 months give 3 doses) and (6-11 months give 2 doses) followed by 1 booster dose at least 8 weeks after the last dose AND after 1 year of age.				✓✓ 2 doses 8 weeks apart	✓✓ 2 doses 4 to 8 weeks apart if not previously received	No booster doses recommended
Bivalent MenBFHbp (Trumenba)						✓✓✓ Licensed for persons 10 to 25 years of age; 3 doses (2 doses given 4 weeks apart, with another dose at least 4 months after dose two and at least 6 months after dose one).	No booster doses recommended
Haemophilus influenzae type b vaccine							
	✓	✓	✓	✓ 18 mos	✓✓ 2 doses 8 weeks apart	✓ 1 dose	All patients greater than or equal to 5 years should receive one dose of Hib vaccine regardless of previous vaccinations
Influenza vaccine							
➤ 6 mos of age and yearly for all age groups							
Hepatitis B vaccine (only required for patients with asplenia/hyposplenia who are exposed to multiple/chronic transfusions -otherwise follow the provincial program guidance for this vaccine).							
➤ 3 doses	✓ 0 mos	✓ 1 mos	✓ 6 mos				Routine titres are not required. If titres are measured inadvertently beyond the 6 months and are non-immune give one dose and measure titre 1 month after the dose – if still non-immune complete the series.

*No more than 2 lifetime doses of PPV23 should be administered.

Live vaccines are contraindicated in an immunocompromised child.

You can give up to 4 vaccines in the same visit in separate sites.

This table is adapted with permission from the Canadian Pediatric Society Position Statement on Preventing and treating infections in children with asplenia or hyposplenia 2019.

Reference documents used in the development of the above information include the Canadian Immunization Guide & the CanHaem Sickle Cell Disease Consensus Statement 2018.