

**The University of Arkansas for Medical Sciences**  
Trauma Clinical Practice Management Guideline

**SUBJECT:** Splenectomy Vaccines

**AUTHORS:** Rebecca Smith, PharmD; Allison Jenkins, PharmD

**APPROVED:** 12/2022

**UPDATED:** 06/2025

**EFFECTIVE:** 06/12/2025

**PURPOSE:** To provide guidelines for the appropriate administration of post-splenectomy vaccinations.

**GUIDELINE:**

Indications:

- All patients status post-splenectomy (this does not apply to patients following isolated spleen embolization)

Initial Vaccinations:

- Pneumococcal vaccine, PCV21 (Capvaxive) - 0.5mL IM
  - If PCV21 (Capvaxive) is not available, give PCV20 (Prevnam-20) – 0.5mL IM
- *Hemophilus b* conjugate vaccine (ActHIB/Hiberix/PedvaxHIB) - 0.5mL IM
- Meningococcal conjugate vaccine, MenACWY (MenQuadfi/Menveo) - 0.5mL IM
- Meningococcal Group B vaccine, MenB (Bexsero/Trumenba) – 0.5 mL IM

Second Set of Vaccinations (to be given eight weeks AFTER initial vaccinations):

- Meningococcal conjugate vaccine, MenACWY (MenQuadfi/Menveo) - 0.5mL IM
- Meningococcal Group B vaccine, MenB (Bexsero/Trumenba) – 0.5 mL IM
- Pneumococcal vaccine: IF the patient received PCV21 (Capvaxive) OR PCV20 (Prevnam-20), no further doses are required; IF the patient received a different pneumococcal vaccine, please contact the trauma/EGS/SICU pharmacist or utilize reference 7 below<sup>7</sup>

Third Set of Vaccinations (to be given 6 months AFTER INITIAL vaccinations)

- Meningococcal Group B vaccine, MenB (Bexsero/Trumenba) – 0.5 mL IM
  - IF the second vaccination was administered at least 6 months post-initial vaccinations, dose 3 is NOT needed; if dose 3 is administered < 4 months after the second vaccination, a fourth vaccination should be given at least 4 months after vaccination 3

Booster Recommendations

- Meningococcal conjugate vaccine, MenACWY (MenQuadfi/Menveo) - 0.5mL IM – one booster dose 5 years after primary series completion and every 5 years
- Meningococcal Group B vaccine, MenB (Bexsero/Trumenba) – 0.5 mL IM – one booster dose 1 year after primary series completion and every 2-3 years
- Pneumococcal vaccine: IF the patient received PCV21 (Capvaxive) OR PCV20 (Prevnam-20), no further doses are required; IF the patient received a different pneumococcal vaccine, please contact the trauma/EGS/SICU pharmacist or utilize reference 7 listed below<sup>7</sup>

**The University of Arkansas for Medical Sciences**  
**Trauma Clinical Practice Management Guideline**

**Procedure:**

Initial vaccinations should be administered on the day before discharge, 14 days after splenectomy, or on the last day of ICU care (before floor or progressive transfer) – whichever comes first.<sup>1,2</sup> All patients should have the problem list in Epic updated to reflect this status by adding the diagnosis of asplenia.

**Education:**

All patients with splenectomy need to be informed of their operation, the risk, and signs/symptoms of developing Overwhelming Post-Splenectomy Infection (OPSI) via physician-to-patient discussion. Patients should be instructed to follow up with their primary care physician for a booster vaccine assessment.<sup>5,7-8</sup> An information card should be completed with the vaccination dates and given to the patient.

**References:**

1. Shatz DV, Romero-Steiner S, Elie CM, et al. Antibody responses in postsplenectomy trauma patients receiving the 23-valent pneumococcal polysaccharide vaccine at 14 versus 28 days postoperatively. *J Trauma* 2002; 53(6): 1037-42.
2. Shatz DV. Vaccination practices among North American trauma surgeons in Splenectomy after trauma. *J Trauma* 2002; 53: 950-956.
3. Taylor MD, Genuit T, Napolitano LM. Overwhelming postsplenectomy sepsis and trauma: Time to consider revaccination? *J Trauma* 2005; 59: 1482-1485
4. Shatz DV, Schinsky M, Pais L, et al. Immune responses of splenectomized trauma patients to the 23-valent pneumococcal polysaccharide vaccine at 1 versus 7 versus 14 days after Splenectomy (RCT). *J Trauma* 1998; 44: 760-765.
5. Epidemiology and prevention of vaccine-preventable diseases. The Pink Book, 13th ed. Chapters 14 and 17, US Department of Health and Human Services Center for Disease Control and Prevention; April 2015.
6. Vaccinations for Adults without a Spleen. <https://www.immunize.org/catg.d/p4047.pdf>; October 2024.
7. Kobayashi M, Leidner AJ, Gierke R, et al. Use of 21-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2024. *MMWR Morb Mortal Wkly Rep* 2024;73:793–798. DOI: <http://dx.doi.org/10.15585/mmwr.mm7336a3>
8. CDC. Recommended Adult Immunization Schedule 2025. <https://www.cdc.gov/vaccines/hcp/imz-schedules/downloads/adult/adult-combined-schedule.pdf>. Accessed 6 2025.
9. Casciani F, Trudeau MT, Vollmer CM. Perioperative immunization for splenectomy and the surgeon's responsibility: a review. *JAMA Surgery*. 2020 Nov 1;155(11):1068-77.
10. Ghaswalla PK, Bengtson LG, Marshall GS, Buikema AR, Bancroft T, Schladweiler KM, Koep E, Novy P, Hoge CS. Meningococcal vaccination in patients with newly diagnosed asplenia in the United States. *Vaccine*. 2021 Jan 8;39(2):272-81.
11. Long B, Koyfman A, Gottlieb M. Complications in the adult asplenic patient: A review for the emergency clinician. *The American Journal of Emergency Medicine*. 2021 Jun 1;44:452-7.
12. Freeman JJ, Yorkgitis BK, Haines K, Koganti D, Patel N, Maine R, Chiu W, Tran TL, Como JJ, Kasotakis G. Vaccination after spleen embolization: a practice management guideline from the Eastern Association for the Surgery of Trauma. *Injury*. 2022 Aug 4.