



# The Spleen Chronicles and Mitigation Infection Risk through Vaccination

Antonietta Spadea\*

Department of Immunology, University of Tennessee Health Science Center, Memphis, USA

## DESCRIPTION

Vaccination plays a significant role in preventing infectious diseases, but for individuals with compromised immune systems, such as those who are asplenic or hyposplenic, the approach to vaccination requires special attention. The spleen plays a vital role in the immune system by filtering blood and removing damaged blood cells and pathogens. Asplenic and hyposplenic individuals, who lack a fully functioning spleen or have a reduced spleen function, respectively, face an increased risk of severe infections.

The spleen is an important organ in the immune system, contributing to the body's defense against infections. It filters blood to remove old or damaged blood cells and captures and destroys bacteria, viruses, and other pathogens. Asplenic and hyposplenic individuals are more susceptible to certain bacterial infections, particularly those caused by encapsulated bacteria such as *Streptococcus pneumoniae*, *Neisseria meningitidis*, and *Haemophilus influenzae*. These infections can be severe and potentially life-threatening.

Vaccination is a key strategy to protect individuals with compromised spleen function from preventable infections. The specific vaccines recommended for asplenic and hyposplenic adults aim to bolster immunity against bacteria that the spleen would normally help eliminate. These vaccines protect against infections caused by *Streptococcus pneumoniae*, a bacterium known to cause pneumonia, meningitis, and bloodstream infections. The Centers for Disease Control (CDC) recommends both vaccines for individuals without a spleen or with a dysfunctional spleen, with a specific schedule based on age and previous vaccinations.

*Neisseria meningitidis* can cause severe meningitis and bloodstream infections. Asplenic and hyposplenic individuals are at an increased risk, and vaccination is important for their protection.

This vaccine protects against *Haemophilus influenzae*, a bacterium that can cause severe infections, particularly in young children. While routine vaccination in childhood has reduced the overall

incidence of Hib infections, asplenic and hyposplenic individuals may still benefit from this vaccine.

The timing and scheduling of vaccines for asplenic and hyposplenic individuals should be carefully considered. Some vaccines require boosters or revaccination at specific intervals, and adherence to the recommended schedule is important for maintaining immunity.

Influenza can pose a significant threat to individuals with compromised immune systems. Annual influenza vaccination is strongly recommended to reduce the risk of flu-related complications.

Individuals with spleen-related conditions should consult their healthcare providers for personalized vaccination recommendations. The healthcare provider can assess the individual's specific health status, review their vaccination history, and recommend an appropriate vaccination plan.

Asplenic and hyposplenic individuals should also adopt certain lifestyle modifications to minimize the risk of infections. These may include practicing good hygiene, avoiding contact with sick individuals, and promptly seeking medical attention if symptoms of infection arise.

Vaccination is a critical component of healthcare for individuals with compromised spleen function. Asplenic and hyposplenic adults face an elevated risk of severe bacterial infections, and appropriate vaccination can significantly reduce this risk. Adhering to recommended vaccination schedules, consulting with healthcare providers, and adopting healthy lifestyle practices are essential for safeguarding the health of individuals without a fully functional spleen. By taking these precautions, individuals with spleen-related conditions can lead healthier lives and mitigate the risks associated with infectious diseases.

Particularly those who are asplenic or hyposplenic. It emphasizes the role of the spleen in the immune system, the increased susceptibility of these individuals to severe bacterial infections, and the specific vaccines recommended for their protection.

It's important to highlight the specific vaccines targeting encapsulated bacteria such as *Streptococcus pneumoniae*, *Neisseria*

**Correspondence to:** Antonietta Spadea, Department of Immunology, University of Tennessee Health Science Center, Memphis, USA, E-mail: Spadea@f3fwd.com

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*meningitidis*, and *Haemophilus influenzae*. The information about the recommended schedule for these vaccines, including boosters or revaccination at specific intervals, is valuable for ensuring sustained immunity.

Additionally, the mention of lifestyle modifications and good hygiene practices is important. This underlines the holistic approach needed to minimize the risk of infections, not relying solely on vaccinations but also incorporating preventive measures in daily life.

The concluding emphasis on consulting healthcare providers for personalized vaccination recommendations reinforces the individualized nature of healthcare. This statement serves as a useful guide for individuals with compromised spleen function and their healthcare providers, promoting proactive measures for a healthier and safer life.