

Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases



Haemophilus influenzae Type b

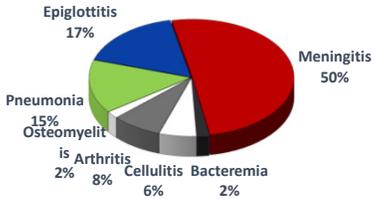
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Haemophilus influenzae type b

- Severe bacterial infection, particularly among infants
- Aerobic gram-negative bacteria
- Polysaccharide capsule
- 6 different serotypes (a–f) of polysaccharide capsule
- 95% of invasive disease caused by type b (prevaccine era)

Haemophilus influenzae Type b Clinical Manifestations*



Clinical Manifestation	Percentage
Meningitis	50%
Epiglottitis	17%
Pneumonia	15%
Osteomyelitis	8%
Arthritis	2%
Cellulitis	6%
Bacteremia	2%

*Prevaccine era

Haemophilus influenzae Type b Epidemiology

- Reservoir** Human asymptomatic carriers
- Transmission** Respiratory droplets presumed
- Temporal pattern** Peaks in Sept–Dec and March–May
- Communicability** Generally limited but higher in some circumstances (e.g., household, child care)

Haemophilus influenzae Type b Conjugate Vaccines

- **Conjugation improves immunogenicity**
–Immune response with booster doses
- **Same polysaccharide capsule linked to different carrier proteins**
- **3 single-component conjugate Hib vaccine products**
- **1 combination vaccine products available that contain Hib conjugate vaccine**

Hib-Containing Vaccine Products

Product ACIP Abbreviation	Age Indications	Approved for
ActHIB Hib	6 weeks and older	Primary series (3 doses) Booster dose (1)
Hiberix Hib	6 weeks and older	Primary series (3 doses) Booster dose (1)
PedvaxHIB Hib	6 weeks and older	Primary series (2 doses) Booster dose (1)

**ACIP Hib Immunization Recommendations
Older Children and Adults**

- Generally not recommended for healthy persons older than 59 months of age
- Vaccinate high-risk adults if not vaccinated in childhood

**ACIP Hib Immunization Recommendations
High-Risk Adults**

High-Risk Adults	Hib Vaccine Guidance
Elective splenectomy	If unvaccinated: 1 dose prior to procedure
Asplenic patient	If unvaccinated: 1 dose
Hematopoietic cell transplant	3 doses (at least 4 weeks apart) beginning 6–12 months after transplant

Hib vaccination is not recommended for HIV-infected adults

Hib Vaccine Interchangeability

- All single-component conjugate Hib vaccines are interchangeable for primary series and booster dose
- 3-dose primary series (4 doses total) if more than one brand of vaccine used at 2 or 4 months of age
- Whenever feasible, use same combination vaccine for subsequent doses
- If vaccine used for earlier doses is not known or not available, any brand may be used to complete the series



PLEASE PLACE QUESTIONS IN THE BASKET
