

A Quick Look at Using *Haemophilus influenzae* type b (Hib) Vaccine

Available Hib Vaccines

- ActHIB® (Sanofi Pasteur)
- Hiberix® (GlaxoSmithKline)
- PedvaxHib® (Merck)
- Pentacel® (Sanofi Pasteur): combination DTaP-IPV/Hib

Indications for Use

- Routinely given as a 3- or 4- dose series depending on vaccine product used
 - ActHIB, Hiberix, and Pentacel: 4-dose series (3-dose primary series at 2, 4, and 6 months; booster dose at 12-15 months)
 - PedvaxHib: 3-dose series (2-dose primary series at 2 and 4 months; booster dose at 12-15 months)
- Minimum interval 4 weeks between primary series doses
- Minimum interval 8 weeks between booster dose and previous dose
- Hib is not routinely given to healthy children age 5 years and older
 - For high-risk recommendations, see Vaccination of Persons with High-Risk Conditions below
- For information on mixing brands for routine schedule, see Further Points below

Vaccine Administration

- Administer **intramuscular (IM)** in the anterolateral thigh or deltoid of the arm
- 1-inch needle; 22-25 gauge
- Can be given with other vaccines at the same visit
 - Separate sites at least 1-inch apart

Storage and Handling

- Store all Hib vaccines in the refrigerator at **36°F to 46°F (2°C to 8°C)**
- ActHIB diluent: packaged with lyophilized vaccine, store diluent in refrigerator with vaccine at **36°F to 46°F (2°C to 8°C)**, **do not freeze diluent**
- Hiberix diluent: before reconstitution, diluent may be stored in refrigerator with the vaccine or at room temperature between (**up to 77°F or 25°C**), **do not freeze diluent**
- Pharmaceutical-grade (purpose-built) units are preferred for vaccine storage
- Keep in the original box; protect Hiberix from light

CATCH-UP VACCINATION OF CHILDREN THROUGH 4 YEARS OF AGE

- For children who are behind on their routine Hib vaccine series, refer to CDC's vaccine catch-up job aids at www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html:
 - Catch-Up Guidance for Healthy Children 4 Months through 4 Years of Age (ActHIB, Pentacel, Hiberix, or Unknown): www.cdc.gov/vaccines/schedules/downloads/child/job-aids/hib-actHib.pdf
 - Catch-Up Guidance for Healthy Children 4 Months through 4 Years of Age (PedvaxHIB Vaccine Only): www.cdc.gov/vaccines/schedules/downloads/child/job-aids/hib-pedvax.pdf

VACCINATION OF PERSONS WITH HIGH-RISK CONDITIONS

- Children aged **12 through 59 months** at high risk for Hib disease include: asplenic (including sickle cell disease), chemotherapy or radiation treatment recipients, and those with immunoglobulin deficiency, complement component deficiency, or HIV
 - If no doses or only 1 dose of Hib vaccine given before 12 months of age, give 2 doses of Hib vaccine separated by 8 weeks
 - If 2 or more doses of Hib vaccine given before 12 months of age, give 1 dose of Hib vaccine at least 8 weeks after the most recent dose
- If no history of at least 1 previous Hib dose, for persons:
 - Having an elective splenectomy aged **15 months and older**, give 1 dose of Hib vaccine preferably at least 14 days prior to surgery
 - With asplenia (including sickle cell disease) aged **5 years and older**, give 1 dose of Hib vaccine

- With HIV infection aged **5 through 18 years**, give 1 dose of Hib vaccine
 - Note: Due to low risk of Hib infection, adults aged 19 years and older with HIV are not recommended to receive Hib vaccine
- For children aged **12 through 59 months** receiving chemotherapy or radiation treatment, if Hib vaccine dose(s) are administered within 14 days of starting therapy or during therapy, repeat dose(s) at least 3 months after therapy completion
- Regardless of their Hib vaccine history, persons of all ages who have had hematopoietic stem cell transplant (HSCT) should be revaccinated with 3 doses of Hib vaccine 6-12 months after successful transplant; doses should be at least 4 weeks apart
- For more guidance on Hib and other vaccine recommendations for persons with sickle cell disease, refer to “A Quick Look at Vaccines Needed for Persons with Sickle Cell Disease” at www.michigan.gov/vaccinequicklooks

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Age less than 6 weeks

PRECAUTIONS

- Moderate or severe illness with or without fever

FURTHER POINTS

- Dose 1 of Hib vaccine should not be given earlier than age 6 weeks
- Give final dose (i.e., booster dose) of Hib vaccine no earlier than age 12 months and a minimum of 8 weeks after the previous dose
- If PedvaxHib is given for both primary series doses (i.e., 2 doses administered before age 12 months), follow the 3-dose schedule
- If at least 1 primary series dose is ActHIB, Hiberix, or Pentacel, follow the 4-dose schedule
- Any Hib vaccine may be used for the booster dose at or after 12 months\
- If not used, discard reconstituted Pentacel within 30 minutes, and discard reconstituted ActHIB and Hiberix by the end of the clinic day
- For more information on Pentacel, refer to “Quick Reference to Combination and Reconstituted Vaccines: Childhood” at www.michigan.gov/vaccinequicklooks
- The Hib Vaccine Information Statement (VIS) with information about the Michigan Care Improvement Registry (MCIR) can be found at www.michigan.gov/immunize or your local health department
- Document as “Hib (ActHib/Hiberix)” or “Hib (PedvaxHIB)” in MCIR, on the vaccine administration record, and on the immunization record card

Publicly purchased Hib vaccine can be administered to eligible children 6 weeks through 18 years of age through the Vaccines for Children (VFC) Program. Eligible children include those who are uninsured, underinsured, Medicaid eligible, Native American, or Alaskan Natives. Contact your local health department for more information.

For additional information: MMWRs: “Prevention and Control of *Haemophilus influenzae* Type b Disease: Recommendations of the ACIP, 2014” (February 28, 2014) and “Food and Drug Administration Approval for Use of Hiberix as a 3-Dose Primary *Haemophilus influenzae* Type b (Hib) Vaccination Series” (April 29, 2016) at www.cdc.gov/vaccines.