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NYC Health
NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE
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TO: Healthcare Providers, Hospitals, Local Health Departments, Pharmacists

FROM: New York State Department of Health and New York City Department of Health and Mental Hygiene

HEALTH ADVISORY: HEPATITIS B BIRTH DOSE

The New York State Department of Health and the New York City Department of Health and Mental Hygiene, together with the jurisdictions that comprise the Northeast Public Health Collaborative, continue to recommend that all newborns receive a hepatitis B vaccine birth dose within 24 hours of delivery. Newborns born to birth parents who test positive for hepatitis B infection or have an unknown status should be vaccinated within 12 hours of birth. Additionally, all children should complete the full vaccination series within 18 months. These recommendations align with the American Academy of Pediatrics' Recommended Child and Adolescent Immunization Schedule.[i]

This advisory reinforces key information about the importance of hepatitis B vaccination in infants.

Hepatitis B Infection:

- Hepatitis B is a viral infection that attacks the liver and can cause both acute and chronic disease, including cirrhosis, liver failure, liver cancer, and death.[ii]
- Perinatal transmission of hepatitis B can occur if the birthing person is infected. Hepatitis B screening during pregnancy to identify those with the disease before delivery is required by New York State Public Health Law 2500-e and recommended by the American College of Obstetricians and Gynecologists and the United States Preventative Services Task Force.[iii,iv] However, challenges and errors still occur: [v]
    - In some cases, birthing parents who have hepatitis B may be unaware of their status, resulting in information not being reported or being inaccurately reported to the delivery facility.
    - Hepatitis B laboratory reports may be misinterpreted. Negative antibody tests can be mistaken for negative antigen results, leading to inaccurate documentation.
    - Birthing parents without known risk factors who test negative during screening early in pregnancy may acquire hepatitis B between testing and delivery or may have a false-negative initial test if the infection is new.
- Infants can also contract hepatitis B from caregivers, household contacts, and others with known or unknown hepatitis B infection, or from surfaces and objects contaminated with blood containing hepatitis B virus.

    - Up to 2.4 million people are estimated to have hepatitis B infection in the United States, among whom an estimated 50% are unaware of their infection.[vi,vii]
    - Hepatitis B is a resilient virus and can live on surfaces such as toothbrushes, washcloths, and nail clippers for up to 7 days.[viii]
- Hepatitis B infection is particularly devastating to infants.[ix]
    - Of infants infected with the virus in the first year of life, 90% develop chronic hepatitis B.[x]
    - One in four people infected with hepatitis B virus during childhood die from liver cirrhosis or liver cancer in later life.[xi]

Hepatitis B Vaccination:

- The birth dose and completion of the vaccine series within the first 18 months of life, regardless of the hepatitis B infection status of the birth parent, is essential to reduce the risk of chronic hepatitis B and related sequelae.
- Risk-based vaccination strategies (e.g., vaccinating only babies born to parents known to have hepatitis B) have historically been insufficient to prevent perinatal and early childhood transmission.[xii]
- NYS and NYC Health Departments identified 218-281 (NYS, non-NYC) and 547-1,505 (NYC) infants born to hepatitis B infected birthing parents since 2015 annually. Counts have declined over time.
    - The last reported case of perinatal transmission of hepatitis B was in 2017 in NYS (non-NYC) and 2025 in NYC (unpublished data, 2025). From 2015 to 2025, there were 20 infants with perinatal hepatitis B infections (range 0-4 infections annually) in NYC.
- Safety and efficacy of the vaccine have been well-established[xiii].
    - The hepatitis B vaccine is 80% to 100% effective in preventing infection or clinical hepatitis in those who receive the complete vaccine series.[xiv]
    - Hepatitis B vaccine has a strong safety profile, with adverse effects that are typically mild and transient. According to post-licensure surveillance, the most frequently reported reactions include localized pain, erythema, or swelling at the injection site, as well as low-grade fever and fatigue, all of which generally resolve within 24–48 hours. Severe adverse reactions are estimated to occur at a rate of 1.1 per million doses, consistent with the overall rate of anaphylaxis to vaccines. [xv]
    - Large meta-analyses and systematic reviews that include millions of children have consistently found no link between vaccines and autism.[xvi]

The hepatitis B vaccine birth dose and completion of the hepatitis B vaccine series in the first 18 months of life protects infants and children during a vulnerable time of their lives. Delaying vaccination misses a crucial period of potential exposure, putting infants at risk. Clinicians should continue to administer hepatitis B vaccine to all newborns at birth and administer the full vaccination series in accordance with the American Academy of Pediatrics' recommendations.

[i] American Academy of Pediatrics. Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States 2025. September 17, 2025 https://downloads.aap.org/AAP/PDF/AAP-Immunization-Schedule.pdf
[ii] Offit P. Hepatitis B Vaccine. Chop.edu. Published 2020. https://www.chop.edu/vaccine-education-center/vaccine-details/hepatitis-b-vaccine
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[iv] US Preventative Services Task Force. Hepatitis B Virus Infection in Pregnant Women: Screening, Final Recommendations Statement. July 23, 2019 https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-b-virus-infection-in-pregnant-women-screening
[v] Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. Recommendations of the Immunization Practices Advisory Committee (ACIP). *MMWR Recomm Rep*. 1991;40(RR-13):1-25. https://www.cdc.gov/mmwr/preview/mmwrhtml/00033405.htm
[vi] Wong RJ, Brosgart CL, Welch S, et al. An Updated Assessment of Chronic Hepatitis B Prevalence Among Foreign-Born Persons Living in the United States. *Hepatology*. 2021;74(2):607-626. doi:10.1002/hep.31782
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[xii] Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination, 1991
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[xiv] Centers for Disease Control and Prevention. *The Epidemiology and Prevention of Vaccine-Preventable Diseases (The Pink Book)*. 14th ed. 2021. https://www.cdc.gov/pinkbook/hcp/table-of-contents/index.html
[xv] Dudley MZ, Halsey NA, Omer SB, et al. The state of vaccine safety science: systematic reviews of the evidence. *Lancet Infect Dis*. 2020;20(5):e80-e89. doi:10.1016/S1473-3099(20)30130-4
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