# Screening for Hepatitis B Virus Infection

**Recommendation Statement**

## U.S. Preventive Services Task Force

This statement summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for hepatitis B virus (HBV) infection and the supporting scientific evidence, and updates the 1996 recommendations contained in the *Guide to Clinical Preventive Services,* second edition.[1] In 1996, the USPSTF recommended that screening with hepatitis B surface antigen (HBsAg) was recommended to detect active (acute or chronic) HBV in all pregnant women at their first prenatal visit (A recommendation). Routine screening of the general population for HBV infection was not recommended (D recommendation). Certain persons at high risk for HBV could be screened to assess their eligibility for vaccination (C recommendation).[1] Since then, the USPSTF criteria to rate the strength of the evidence have changed.[2] Therefore, this recommendation statement has been updated and revised based on the current USPSTF methodology and rating of the strength of the evidence. Explanations of the current Task Force ratings and of the strength of overall evidence are given in Appendix A and Appendix B, respectively.

The complete information on which this statement is based, including evidence tables and references, is available in the brief evidence update[3] on this topic, on the USPSTF Web site (www.preventiveservices.ahrq.gov). The recommendation statement and brief evidence update are also available in print from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse (call 1-800-358-9295, or e-mail ahrqpubs@ahrq.gov). The recommendation is also posted on the Web site of the National Guideline Clearinghouse™ (www.guideline.gov).

Recommendations made by the USPSTF are independent of the U.S. Government. They should not be construed as an official position of AHRQ or the U.S. Department of Health and Human Services.

## Summary of Recommendations

The U.S. Preventive Services Task Force (USPSTF) strongly recommends screening for hepatitis B virus infection in pregnant women at their first prenatal visit. **A recommendation.**

*The USPSTF found good evidence that universal prenatal screening for HBV infection using HBsAg substantially reduces prenatal transmission of HBV and the subsequent development of chronic HBV infection. The current practice of vaccinating all infants against HBV infection and postexposure prophylaxis with hepatitis B immune globulin administered at birth to infants of HBV-infected mothers substantially reduces the risk for acquiring HBV infection.*

The USPSTF recommends against routinely screening the general asymptomatic population for chronic hepatitis B virus infection. **D recommendation.**

*The USPSTF found no evidence that screening the general population for HBV infection improves long-term health outcomes such as cirrhosis, hepatocellular carcinoma, or mortality. The prevalence of HBV infection is low; the majority of infected individuals do not develop chronic infection, cirrhosis, or HBV-related liver disease. Potential harms of screening include labeling, although there is limited evidence to determine the magnitude of this harm. As a result, the USPSTF concluded that the potential harms of screening for HBV infection in the general population are likely to exceed any potential benefits.*

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## Clinical Considerations

- Routine hepatitis vaccination has had significant impact in reducing the number of new HBV infections per year, with the greatest decline among children and adolescents. Programs that vaccinate health care workers also reduce the transmission of HBV infection.
- Most people who become infected as adults or older children recover fully from HBV infection and develop protective immunity to the virus.
- The main risk factors for HBV infection in the United States include diagnosis with a sexually transmitted disease, intravenous drug use, sexual contact with multiple partners, male homosexual activity, and household contacts of chronically infected persons. However, screening strategies to identify individuals at high risk have poor predictive value, since 30% to 40% of infected individuals do not have any easily identifiable risk factors.
- Important predictors of progressive HBV infection include longer duration of infection and the presence of comorbid conditions such as alcohol abuse, HIV, or other chronic liver disease. Individuals with HBV infection identified through screening may benefit from interventions designed to reduce liver injury from other causes, such as counseling to avoid alcohol abuse and immunization against hepatitis A. However, there is limited evidence on the effectiveness of these interventions.

## References

1. U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services.* 2nd ed. Washington, DC: Office of Disease Prevention and Health Promotion; 1996.
2. Harris RP, Helfand M, Woolf SH, et al; Methods Work Group, Third U.S. Preventive Services Task Force. Current methods of the U.S. Preventive Services Task Force: a review of the process. *Am J Prev Med.* 2001;20(3S):21–35.
3. Krishnaraj R. Screening for hepatitis B virus infection: a brief evidence update for the U.S. Preventive Services Task Force. Rockville, MD: Agency for Healthcare Research and Quality; February 2004. Available at: www.ahrq.gov/clinic/3rduspstf/visionscr/vischup.htm.

## Appendix A
## U.S. Preventive Services Task Force—Recommendations and Ratings

**The Task Force grades its recommendations according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):**

**A.** The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. *The* USPSTF *found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.*

**B.** The USPSTF recommends that clinicians provide [the service] to eligible patients. *The* USPSTF *found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.*

**C.** The USPSTF makes no recommendation for or against routine provision of [the service]. *The* USPSTF *found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.*

**D.** The USPSTF recommends against routinely providing [the service] to asymptomatic patients. *The* USPSTF *found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

**I.** The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that [the service] is effective is lacking, of poor quality, or conflicting and the balance of benefits and harms cannot be determined.*

## Appendix B
## U.S. Preventive Services Task Force—Strength of Overall Evidence

**The USPSTF grades the quality of the overall evidence for a service on a 3-point scale (good, fair, poor):**

**Good:** Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

**Fair:** Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

**Poor:** Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.





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