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## Hepatitis B Vaccine: Fact Sheet

### First Anti-cancer Vaccine

- Hepatitis B vaccine prevents hepatitis B disease and its serious consequences like hepatocellular carcinoma (liver cancer). Therefore, this is the first anti-cancer vaccine.

### Safe and Effective

- Medical, scientific and public health communities strongly endorse using hepatitis B vaccine as a safe and effective way to prevent disease and death.
- Scientific data show that hepatitis B vaccines are very safe for infants, children, and adults.
- There is **no confirmed evidence** which indicates that hepatitis B vaccine can cause chronic illnesses.
- To assure a high standard of safety with vaccines, several federal agencies continually assess and research possible or potential health effects that could be associated with vaccines.

### Contraindications to Vaccine

- A serious allergic reaction to a prior dose of hepatitis B vaccine or a vaccine component is a contraindication to further doses of hepatitis B vaccine. The recombinant vaccines that are licensed for use in the United States are synthesized by *Saccharomyces cerevisiae* (common bakers' yeast), into which a plasmid containing the gene for HBsAg has been inserted. Purified HBsAg is obtained by lysing the yeast cells and separating HBsAg from the yeast components by biochemical and biophysical techniques. Persons allergic to yeast should not be vaccinated with vaccines containing yeast.

### Vaccine Schedule

- [Printable childhood and adolescent immunization schedules](#): National Immunization Program, CDC
- [Adult Immunization Schedule](#): National Immunization Program, CDC
- If the vaccination series is interrupted after the first dose, the second dose should be administered as soon as possible. The second and third doses should be separated by an interval of at least 2 months. If only the third dose is delayed, it should be administered when convenient.
- [Recommended dosages and schedules of hepatitis B vaccines](#)

### Booster Doses

- Current data show that vaccine-induced hepatitis B surface antibody (anti-HBs) levels may decline over time; however, immune memory (anamnestic anti-HBs response) remains intact indefinitely following immunization. Persons with declining antibody levels are still protected against clinical illness and chronic disease.

- For health care workers with normal immune status who have demonstrated an anti-HBs response following vaccination, booster doses of vaccine are not recommended nor is periodic anti-HBs testing.

## Post-vaccination Testing

- After routine vaccination of infants, children, adolescents, or adults post-vaccination testing for adequate antibody response is not necessary.
- Post-vaccination testing IS recommended for persons whose medical management will depend on knowledge of their immune status.

This includes persons who:

- are immunocompromised (e.g., hemodialysis patients)
  - received the vaccine in the buttock
  - are infants born to HBsAg (hepatitis B surface antigen)-positive mothers
  - are healthcare workers who have contact with blood
  - are sex partners of persons with chronic hepatitis B virus infection
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- Post-vaccination testing should be completed 1-2 months after the third vaccine dose for results to be meaningful. A protective antibody response is 10 or more milliinternational units ( $\geq 10$  mIU/mL).

## Adverse Events

- Case reports of unusual illnesses following vaccines are most often related to other causes and not related to a vaccine. Whenever large number of vaccines are given, some adverse events will occur coincidentally after vaccination and be falsely attributed to the vaccine.
- Anyone believing they have had a possible reaction or adverse health effect from a vaccine should report it to their health care provider. The Vaccine Adverse Events Reporting System (1-800-822-7967) receives reports from health care providers and others about vaccine side effects.

## Combined Hepatitis A and Hepatitis B Vaccine

- [Combinations using hepatitis A and/or hepatitis B vaccines](#)

## Additional Information

- [VFC language regarding hepatitis B vaccines](#)