

## About the preventive vaccination against Hepatitis B

Hepatitis B is an inflammation of the liver caused by an infection with the Hepatitis B virus (HBV). This virus is transmitted through the blood or the body fluids of an infected person (e.g., during sexual intercourse). Intimate contacts play the major role in transmission, since in industrialized nations blood and blood preparations are generally tested for pathogens and are therefore considered safe. The danger therefore increases at the start of puberty. The pathogen can also be transmitted to a child by a pregnant woman chronically infected with the Hepatitis virus. Therefore, all pregnant women should be tested. If the test is positive, the newborn will receive immune prophylaxis immediately after birth. Hepatitis B starts with flu-like symptoms or gastrointestinal complaints, tiredness, and fever. Later, the urine can have a brown discoloration, the stool can lose color, and a yellowing of the skin and the conjunctiva of the eyes can appear (jaundice). Around one percent of those affected die, and the disease becomes chronic in up to ten percent of infected adults (in infants up to 90%); the virus stays in the body. The Hepatitis B virus can also lead to chronic infection without any signs of disease. Chronically infected people are a source of infection for their environment. In Germany, around 0.3 to 0.8 percent of the population is chronically infected with HBV; in other countries—e.g., in African and Asian countries—the frequency of chronically infected people is significantly higher. If the disease becomes chronic, liver cirrhosis and/or liver cell carcinoma can be a long-term consequence. A specific treatment for acute Hepatitis B is not available. The only protection is a preventive vaccination performed in time.

### Vaccines

The vaccines against Hepatitis B contain components of the Hepatitis B virus envelope that are obtained by gene technology methods using yeast cells and then purified with modern methods. If properly administered, they elicit long-term immunity, e.g., protection against Hepatitis B disease. The Hepatitis B single vaccine is administered three times. The vaccinating doctor can tell you about the intervals these vaccinations are given and about the start and length of vaccine protection and, if necessary, about required booster vaccinations. The vaccination against Hepatitis B can be performed at the same time as other vaccinations. The vaccine is injected (by intramuscular or, if required, subcutaneous injection). The injection is given into the upper arm or the lateral upper leg only. In people with a high risk for infection, e.g., medical personnel, the success of the vaccination is checked after the basic immunization and, if necessary, the vaccination is repeated. Checking the success of the vaccination is also recommended in immune-compromised patients (e.g., due to cancer treatment). In addition to the single vaccine discussed here, which protects against Hepatitis B only, combination vaccines which protect against other diseases at the same time (e.g., six-fold vaccine) are also available for vaccinating infants and small children. Separate information sheets are available for these vaccinations with combination vaccines.

### Who should be vaccinated?

1. The vaccination calendar recommends vaccination against Hepatitis B for all boys and girls starting from the age of eight weeks. For this purpose, the already named combination vaccines are also

suitable. An immunization that was not performed in an infant can be made up for at any time and is recommended.

2. Newborns whose mothers are infected with the Hepatitis B virus are vaccinated immediately after birth and receive immunoglobulins (important: remember to complete the basic immunization).
3. People in whom a severe course of Hepatitis B is expected because of an existing or expected immune deficiency or due to an existing disease, e.g., patients infected with HIV and/or Hepatitis C, patients with liver disease, dialysis patients and others.
4. People with an increased non-occupational risk, e.g., through contact with Hepatitis B-infected people in the family or living community, through sexual behavior with high risk of infection, and i.v. drug consumers, prison inmates, potentially patients in psychiatric institutions.
5. People with an increased occupational risk, e.g., medical and dental personnel (including those in laboratories, cleaning personnel, and trainees), first responders, police, and personnel of institutions with increased risk, e.g., prisons, homes for asylum seekers, facilities for disabled people.
6. Travelers to tropical or subtropical areas in which Hepatitis B occurs with a high frequency; an individual risk assessment required.

#### **Who should not be vaccinated?**

Anyone suffering from an acute disease with fever (higher than 38.5°C) requiring treatment should not be vaccinated. The vaccination can be made up for, as soon as the disease symptoms have subsided. During pregnancy, vaccination should only be performed when there is a clear acute risk of infection. If there is a hypersensitivity to a component of the vaccine, or if disease symptoms appeared after a previous vaccination against Hepatitis B, your vaccinating doctor will consult with you about the necessity and options of continuing the vaccination.

#### **Behavior after vaccination**

The vaccinated person does not need special rest, however, unusual physical strain should be avoided during the three days after vaccination. People who have a tendency to circulatory reactions, or in whom immediate allergies are known, should let the doctor know before the vaccination.

#### **Possible local and general reactions after vaccination**

After vaccination, in addition to the desired immunity and therefore protection from disease, redness or painful swelling at the vaccination site may occur in up to 10% of vaccinated people. This is a normal expression of the body's dealing with the vaccine and usually appears within one to three days, and rarely persists for a longer time. In rare cases, nearby lymph nodes may swell. General symptoms, such as a minor to moderate rise in temperature, chills, headache, aching limbs (muscle and joint pain), or tiredness are rare. In addition, gastrointestinal disorders (nausea, vomiting, and diarrhea) may appear. An increase of liver enzyme values is observed in isolated cases after vaccination. Generally, the reactions listed are temporary and subside quickly and without consequences.

**Our complications from vaccination possible?**

Vaccination complications are very rare consequences of vaccination that are beyond the normal measure of a vaccine reaction, which have a significant impact on the health condition of the vaccinated person. In individual cases, nervous system complications (e.g., nerve inflammation, temporary paralysis) and decreases in platelet counts are described; a causal relationship to the vaccination is questionable.

**Consultation on possible side effects by the vaccinating doctor**

In addition to this information sheet, your doctor offers a consultation with you. Should symptoms appear after vaccination which are beyond the above named quickly subsiding local and general reactions, the vaccinating doctor is, of course, also available to consult with you.

You can reach the vaccinating doctor at:

**Disclaimer**

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Name \_\_\_\_\_  
Name

### Protective vaccination against Hepatitis B

*Schutzimpfung gegen Hepatitis B*

Please find here an information sheet for the performance of the protective vaccination against Hepatitis B. It contains the relevant information about the disease the vaccine can prevent, about the vaccine, about the vaccination, about vaccine reactions, and possible vaccination complications.

*Anliegend erhalten Sie ein Merkblatt über die Durchführung der Schutzimpfung gegen Hepatitis B. Darin sind die wesentlichen Angaben über die durch die Impfung vermeidbare Krankheit, den Impfstoff, die Impfung sowie über Impfreaktionen und mögliche Impfkomplicationen enthalten.*

Prior to performing the vaccination, the following information is requested:

*Vor der Durchführung der Impfung wird zusätzlich um folgende Angaben gebeten:*

1. Is the person receiving the vaccine currently healthy?

*Ist der Impfling gegenwärtig gesund?*

yes (*ja*)                       no (*nein*)

2. Does the person receiving the vaccine have a known allergy?

*Ist bei dem Impfling eine Allergie bekannt?*

yes (*ja*)                       no (*nein*)

if yes, which \_\_\_\_\_  
*wenn ja, welche*

3. Did the person receiving the vaccine have allergic reactions, high fever, or other unusual reactions after a previous vaccination?

*Traten bei dem Impfling nach einer früheren Impfung allergische Reaktionen, hohes Fieber oder andere ungewöhnliche Reaktionen auf?*

yes (*ja*)                       no (*nein*)

If you want to learn more about the preventative vaccination against Hepatitis B, ask your immunizing doctor!

*Falls Sie noch mehr über die Schutzimpfung gegen Hepatitis B wissen wollen, fragen Sie den Impfarzt!*

Please bring your vaccination booklet with you to the next vaccination appointment!

*Zum Impftermin bringen Sie bitte das Impfbuch mit!*

**Declaration of consent***Einverständniserklärung***for performing the preventative vaccination against Hepatitis B***zur Durchführung der Schutzimpfung gegen Hepatitis B*

Name of the person to be vaccinated \_\_\_\_\_

*Name des Impflings*

Date of birth \_\_\_\_\_

*geb. am*

I have understood the contents of this information sheet and have received detailed information about the vaccination in a discussion with my doctor.

*Ich habe den Inhalt des Merkblatts zur Kenntnis genommen und bin von meinem Arzt/meiner Ärztin im Gespräch ausführlich über die Impfung aufgeklärt worden.*

- I do not have any additional questions.  
*Ich habe keine weiteren Fragen.*
- I consent to the recommended vaccination against Hepatitis B.  
*Ich willige in die vorgeschlagene Impfung gegen Hepatitis B ein.*
- I decline the vaccination. I was informed about potential disadvantages of declining this vaccination.  
*Ich lehne die Impfung ab. Über mögliche Nachteile der Ablehnung dieser Impfung wurde ich informiert.*

Comments \_\_\_\_\_

*Vermerke*

Place, date \_\_\_\_\_

*Ort, Datum*\_\_\_\_\_  
signature of person receiving the vaccination,  
or guardian*Unterschrift des Impflings bzw. des Sorgeberechtigten*\_\_\_\_\_  
signature of doctor*Unterschrift des Arztes/der Ärztin*