

HEPATITIS B IMMUNIZATIONS for HEALTH EDUCATION STUDENTS

The Health Education Departments strongly recommends that students become immunized against Hepatitis B. This is voluntary and should be done only after you have read the necessary information. Consult your physician for clarification and advisement.

1. Read and understand the contents of the enclosed fact entitled "Hepatitis B - Facts About the Disease and the Immunization." Please ask your program director or health records advisor about any questions you may have.
2. Certain groups are at risk for complications from the immunization. If you are in one of the following groups, you should contact your physician for information regarding your potential risk.
 - a. heart or lung problems
 - b. a serious active or repeat infection
 - c. breastfeeding
 - d. previous allergic reactions to Hepatitis vaccine or treatment
 - e. prone to infection
 - f. pregnancy
3. If you are from the Pacific Basin and Southeast Asia, you may have already been exposed to Hepatitis B or received gamma globulin. You should have an antibody titer blood test done. If the titer is positive for the Hepatitis B antibody, vaccination should not be done.
4. If you choose to use a private physician/clinic or U.H. Health Center for the immunization it may be possible to receive partial reimbursement from your health insurance policy.
5. The Hepatitis B vaccination requires a series of three doses of the vaccine. You should complete all 3 on schedule. The first two doses must be taken one month apart, and the third dose 6 months after the first. After the third one, you will be given a vaccination card which says you successfully completed the immunization program. Be sure to give a copy of this card to the Nursing Department.

NOTE: *This document has been adapted and modified from the Kapi'olani Medical Center for Women and Children document on their Hepatitis B Immunization Program, and the UH Manoa School of Nursing Immunization Program.*

HEPATITIS B

Facts About the Disease and the Immunization

What is Hepatitis B?

Hepatitis B is a disease caused by a virus and results in inflammation of the liver. Hepatitis B is a serious disease as it can be acquired in many ways and can result in serious complications.

How are people infected by Hepatitis B?

People are affected by Hepatitis B in one of three ways. First, there are those people who have active acute hepatitis. Then, there are people who carry the virus in their bodies over long periods of time, yet do not show signs of acute infection. These people are often called "chronic carriers" and can spread the disease but may not know it. Last, there are patients who have had the disease and no longer carry the virus. They are not infectious and only have a history of having had hepatitis.

There are nearly 1 million chronic carriers of Hepatitis B virus in the U.S., and this number is growing rapidly. As you can see, the risk of acquiring the disease from someone who may not even know they have the disease is an important concern.

What happens to a person who has Hepatitis B?

At least half of all people who have Hepatitis B have no symptoms and therefore may not know they have the disease. If symptoms are present, they may include:

- flu-like symptoms
- fatigue
- mild fever
- muscle or joint aches
- nausea and vomiting
- loss of appetite
- vague abdominal pain
- diarrhea
- dark urine
- light-colored stools
- itching of the skin
- yellowish coloring of the whites of the eyes and skin (jaundice)

Although some people must be hospitalized, most have mild symptoms. Long term effects of the disease include persistent inflammation of the liver, cirrhosis, and cancer of the liver.

How does someone get infected?

People get infected by coming in contact with the blood, blood derivatives, or body fluids (saliva, semen) of a person harboring the Hepatitis B virus. The virus can also live on inanimate (non-living) surfaces for days. Both the frequency and the extent of the contact are important.

Are certain health care workers at higher risk for getting Hepatitis B?

Yes. Those health care workers who come in contact with the infected items listed above have a greater chance of being infected with Hepatitis B.

How does someone find out they have Hepatitis B?

Blood tests can be done to diagnose the disease - they include hepatitis screens (titers) and liver function tests.

Can Hepatitis B be treated?

There is no treatment for the virus that causes the disease. Therapy is directed towards relieving the symptoms and making the patient more comfortable while their own antibodies fight the disease.

Is there any protection against hepatitis?

Yes. There are two ways people can protect themselves from getting Hepatitis B. First, they can use proper precautions to avoid contact with the body fluids and blood of persons infected with Hepatitis B. Unfortunately, many of the people infected with Hepatitis B do not know it and therefore, no precautions are taken.

Second, they can get immunized against Hepatitis B. Immunization will protect people from getting Hepatitis B.

How do people get immunized?

There is an effective vaccine currently available which is made from Hepatitis B surface antigen (HBsAg) produced by a recombinant strain of the yeast *Saccharomyces cerevisiae*. It is called Recombivax-HB. After careful processing to remove or inactivate any live viruses, the vaccine is administered, it causes a person's body to make its own antibodies against Hepatitis B, protecting that person from getting the disease.

How safe is the vaccine?

According to the manufacturer, Recombivax-HB is generally well-tolerated. No serious adverse (harmful) reactions attributed to the vaccine have been reported during the course of clinical trials. No serious hypersensitivity reactions have been reported. This vaccine is free of association with human blood or blood products.

How effective is the vaccine?

There are various reports which show slightly different rates of effectiveness, however, with all 3 doses taken, the effectiveness of the vaccine rises to approximately **90%**. Although the duration of immunity is not known as yet, the manufacturer has information which suggests that the vaccine may be effective for at least 5 years. If less than 3 shots are taken, or if the time between shots is too long, the protection is decreased.

How is the vaccine administered?

Recombivax-HB is injected intramuscularly for 3 doses. The second dose is given 1 month after the first and the third dose is given 6 months after the first. **It is important that all 3 doses are taken.**

Are there any side effects to taking the vaccine?

The following reactions have been occasionally reported: injection site tenderness and inflammation, low grade fever (less than 101°F), malaise, fatigue, headache, nausea, vomiting, dizziness, muscle or joint tenderness, and rash.

Is the vaccine not recommended for some people?

The vaccine is not recommended for people who are hypersensitive to the vaccine, or yeast.

It should be used with caution in patients who have heart or lung problems, any serious active infection, or are prone to infection. Women who are or are trying to get pregnant should be cautioned as well as mothers who are breastfeeding. It is for these reasons that special permission is required from a physician for persons in these groups.