

## Background: Hepatitis B and Vaccination

### Hepatitis B

Hepatitis B is a serious infectious disease caused by a virus that attacks the liver. In a small but significant number of people, the hepatitis B virus (HBV) can lead to life-long infection resulting in cirrhosis (scarring) of the liver, liver cancer, or liver failure. Fortunately, the infection can be prevented by vaccination.

### Vaccination Recommendations for College Students

A vaccine is available to help protect against hepatitis B. The U.S. Centers for Disease Control and Prevention (CDC) recommends vaccination of everyone age 18 and under, and anyone at high risk for hepatitis B. *The American College Health Association (ACHA) recommends that all students be vaccinated for this disease. Likewise, the National Collegiate Athletic Association (NCAA) recommends that all student athletes be vaccinated. ECSU Health Service strongly agrees with these recommendations and believes all Eastern students should be immunized for hepatitis B. If you have already received the vaccine (a series of three shots), you do not need to get it again.*

### Symptoms of the Disease

Symptoms of hepatitis B can resemble the flu and may include fever, loss of appetite, low energy, joint pain, cramping, or nausea and vomiting, as well as jaundice (yellow skin or eyes). However, in about 30 percent of cases, hepatitis B causes no symptoms. Although most people recover from this disease without any complications, 5 to 10 percent of individuals become chronic carriers meaning they have no symptoms and may not know they are infected. What's more, they may not be aware that they are still able to transmit the disease to others.

### Incidence of Hepatitis B

In 2001, an estimated 78,000 Americans were infected with hepatitis B. The majority of these were adolescents and young adults. One in 20 people now have been infected with this disease and about one-third of those infected do not know the source of their infection. There are approximately 1.25 million chronically infected Americans.

### Transmission of the Disease

Hepatitis B is contagious and spreads when blood or other body fluids of a person with the virus are absorbed into an individual's blood stream through broken skin or mucous membranes. The hepatitis B virus can live in all body fluids of an infected person, including blood, saliva, semen, and vaginal fluids. It can enter the body through cuts, tears, or abrasions in the skin and through mucous membranes of the mouth, vagina, anus, and eyes. Hepatitis B can be transmitted through sexual contact; during contact sports; by helping someone who is injured; by sharing razors, toothbrushes, pierced earrings, or injection drug paraphernalia; or by getting a tattoo or body piercing using non-sterile instruments or needles.

## **Risk Factors for Hepatitis B**

Anyone who comes in contact with the blood or body fluids of an infected person is at risk for hepatitis B. Certain behaviors can increase the risk, including unprotected sex (vaginal, anal, and oral); contact sports (sports during which players may be exposed to each other's blood or saliva); getting a tattoo or body piercing; sharing items such as razors, earrings, and toothbrushes; sharing injection drug paraphernalia; travel abroad to areas where the disease is widespread; health care and public safety work (or other occupations that may involve exposure to infected blood or body fluids); helping someone who is bleeding; household contact with persons with chronic hepatitis virus infection; and chronic kidney dialysis.

## **Risk for College Students**

College students may be at higher risk for hepatitis B. The highest rate of disease occurs in individuals between the ages of 20 and 49. Living in close quarters, like a college dormitory, may increase the risk of exposure to carriers. College students may be exposed to the virus during sexual contact, getting body piercings or tattoos, sharing needles or razors, during contact sports and other high-risk behaviors. Health sciences students may be exposed to body fluids or tissues from patients with hepatitis B infection. In addition, during college, students may travel abroad to areas where the disease is common.

## **About the Hepatitis B Vaccine**

The hepatitis B vaccine is safe and effective. *You cannot get the disease from the vaccine.* The most common side effect of the vaccine is soreness at the site of the injection. Vaccination requires a series of three shots over a six-month period. After that, a booster shot is not necessary. The vaccine protects 96 percent of those who complete the three-dose immunization series.

## **Other Forms of Prevention**

In addition to vaccination, people can protect themselves by being sexually abstinent or, if sexually active, by *always* using condoms during sex and by avoiding tattooing and body-piercing with non-sterile instruments or techniques. They also should avoid sharing needles, pierced earrings, razors, toothbrushes or anything else that would increase their risk of coming in contact with infected body fluids.

## **For More Information**

To learn more about hepatitis B and the vaccine, please contact your physician or the University Health Service here at ECSU (860.465.5263) or visit our web site at [www.easternct.edu/health](http://www.easternct.edu/health). The three vaccine series is available at the health service for a fee. For general information about hepatitis B among college students, visit the websites of the U.S. Centers for Disease Control and Prevention (CDC), [www.cdc.gov/ncidod/hip/Blood/HepatitisB.htm](http://www.cdc.gov/ncidod/hip/Blood/HepatitisB.htm), and the American College Health Association (ACHA), [www.acha.org](http://www.acha.org).