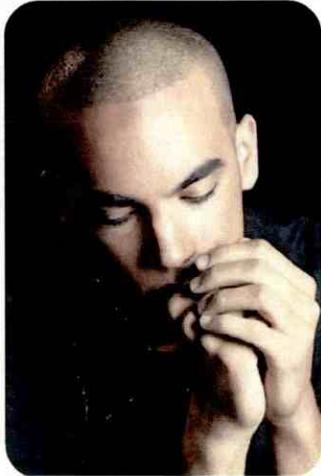


Hepatitis B



What is Hepatitis B?

The hepatitis B virus infects the liver and can lead to liver failure, liver cancer, and death. Hepatitis B is spread when blood or body fluids from an infected person enters the body of a person who is not infected. The hepatitis B virus is 100 times more contagious than HIV, the virus that causes AIDS.

Are You at Risk?

In 2001 an estimated 78,000 persons in the U.S. were infected with hepatitis B. More than 70 percent of those infected are between the ages of 15 and 39.

- Are you sexually active with multiple partners? Or, do you have a sexual partner who is at risk for hepatitis B infection?
- Are you a healthcare worker such as a nurse, doctor, physician assistant, nurse practitioner, laboratory technician, emergency room attendant, an employee of an institution for the developmentally disabled, or any other position that exposes you to potentially infected blood or body fluids?
- Do you work in public safety positions such as fire and rescue or law enforcement?
- Are you an immigrant from Asia, Africa, the Amazon Basin in South America, the Pacific Islands, Eastern Europe, or the Middle East?
- Are you a Native American or Alaskan Native?
- Do you live with someone who has hepatitis B?
- Do you practice tattooing or body piercing?
- Do you travel internationally to endemic areas?
- Do you have hemophilia?
- Are you receiving hemodialysis treatments?
- Are you a man who has sex with men?
- Have you ever used intravenous drugs?

If you answered yes to any one of these questions, you are at risk of infection with the hepatitis B virus.

Symptoms

Hepatitis B infects many adults without making them feel sick. You can carry the virus in your body for years without knowing it and unintentionally infect others.

If you do get symptoms, they are like the "flu": you lose your appetite, feel extremely tired, have stomach cramps, and throw up. If you are more seriously ill, your skin and eyes may turn yellow and you may need to be admitted to the hospital.

Acute hepatitis: Lasts no longer than 6 months, after which you are no longer infectious.

Chronic hepatitis: Lasts longer than 6 months and you remain infectious.

How can I protect myself?

The only way to protect yourself from infection is by getting vaccinated (a three-shot series). If you are at risk, talk with your doctor today about getting the hepatitis B vaccination.

Just the Facts

- The hepatitis B virus is found in the blood and body fluids of persons infected with this virus.
- Hepatitis B is not spread through food or water or by casual contact.
- Hepatitis B can be spread by sexual contact; by sharing razors or needles; from mother to infant during birth; and by tattooing or body piercing with unsterile equipment.
- Hepatitis B, once caught, has no cure. There is, however, prevention in the form of the hepatitis B vaccine.
- Every year, more than 5,000 Americans die of hepatitis B infection.



Resources

Hepatitis Foundation International

Hepatitis Foundation International focuses on bringing viral hepatitis under control. The Foundation supports research and provides educational programs and materials for medical professionals, those with hepatitis, and the public.

Hepatitis Foundation International

30 Sunrise Terrace
Cedar Grove, NJ 07009-1423
Phone 973/239-1035
Toll-free 800/891-0707
Fax 973/857-5044
E-mail mail@hepfi.org
Internet www.hepfi.org

Hepatitis B Foundation

Dedicated to eliminating hepatitis B through community education, the Foundation provides free educational materials and provides referrals to healthcare providers specializing in hepatitis B and support groups.

For a list of free materials, contact:

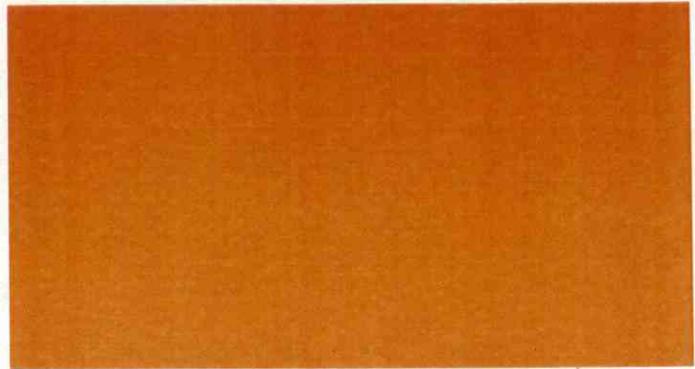
Hepatitis B Foundation
700 E. Butler Avenue
Doylestown, PA 18901

Phone 215/489-4900
Fax 215/489-4920
Internet <http://www.hepb.org>
E-mail info@hepb.org

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Hepatitis B
(HBV)

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An estimated 8,000 to 10,000 people die from hepatitis C each year. In the U.S., there are 30,000 new cases each year. There is no vaccine and no cure. About 85 percent of those infected develop chronic liver disease and about 10 to 20 percent eventually develop cirrhosis of the liver about 20 years after the onset of their infection.

Resources

Hepatitis Foundation International

30 Sunrise Terrace
Cedar Grove, NJ 07009-1423
Phone 973-239-1035
Toll-free 800-891-0707
Fax 973-857-5044
E-mail mail@hepfi.org
www.hepfi.org

Centers for Disease Control and Prevention,

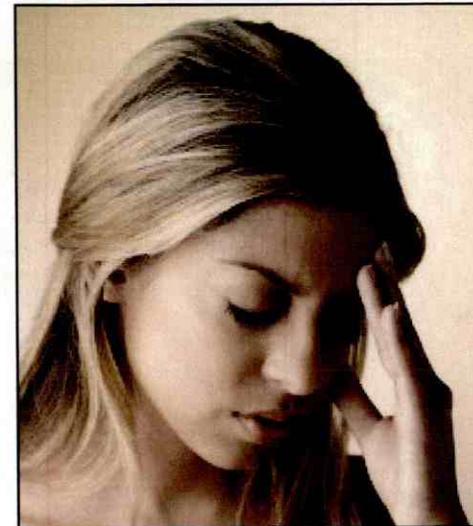
CDC Hepatitis Branch
888-4HEPCDC or 888-443-7232
www.cdc.gov/ncidod/diseases/hepatitis/index.htm

CDC Hepatitis Resources

www.cdc.gov/ncidod/diseases/hepatitis/resource/index.htm

The American Liver Foundation

800-465-4837
www.liverfoundation.org



Hepatitis C

Special thanks to Rosie Fardo, RN, BSN, CIC, Kathy Brooks RN, PhD, CIC, and Chris Nightingale, RN, BSN, CIC, for reviewing this brochure, November 2003.

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Infection Control and Epidemiology

Hepatitis C

Are You at Risk?

Although blood/blood product transfusions prior to 1990 have been the most common way hepatitis C has been transmitted, there are other ways it can be spread.

- Are you sexually active with multiple partners?
- Do you or have you ever used intravenous or other street drugs?
- Have you experienced a needle-stick injury?
- Are you a hemodialysis patient?
- Are you a transplant recipient?
- Do you practice tattooing or body piercing?
- Are you exposed to blood/blood products at work?

If you answered yes to any of these questions, you are at risk of infection with the hepatitis C virus and should contact a doctor to check for possible infection.

What is hepatitis C?

Hepatitis C is a virus that infects the liver which can lead to liver failure, liver cancer, and death. The hepatitis C virus is spread primarily through blood and possibly other body fluids. There is no vaccine against hepatitis C. Treatment is available, but is effective in only 15 percent–25 percent of patients.

Symptoms

Hepatitis C infects many adults without making them feel sick (25 percent–30 percent). You can carry the virus in your body for years without knowing it and unintentionally infect others.

If you do get symptoms, they are similar to the “flu”: you lose your appetite, feel extremely tired, experience muscle and joint pain, have stomach cramps, and vomit. If you are more seriously ill, your skin and eyes may turn yellow with jaundice, your urine is dark, and you may need to be admitted to the hospital.

Usually people are found to have hepatitis C when their liver enzymes are above normal in a blood test and additional blood tests are done to find the cause.

Acute hepatitis C (15 percent): Lasts no longer than six months, after which you are no longer infectious.

Chronic hepatitis C (85 percent): Lasts longer than six months and you remain infectious.

How can I protect myself?

- If you have sex with multiple partners, practice safe sex which means using a condom every time.
- Do not use intravenous drugs.
- Do not share toothbrushes, razors, or other personal care items that may have blood on them.
- Receive hepatitis A and hepatitis B vaccines.

Should I ask for a blood test?

Ask your doctor for a blood test if you answer yes to any one of the following:

- You received a blood transfusion or organ transplant before July 1992
- You were treated with a blood product for clotting problems before 1987
- You have ever injected drugs (even if only once or a few times)
- You were ever on long-term kidney dialysis
- You have ever had a sexually transmitted disease

Occupational Exposure to Bloodborne Pathogens

There are more than 20 pathogens whose usual route of transmission is bloodborne. The two that have received the most attention are HIV and HBV. Studies demonstrate that the risk of HIV infection through occupational exposure is very low, less than 1%. The risk of occupational HBV transmission is much higher.

The Centers for Disease Control and Prevention estimates that 12,000 health care workers a year contract Hepatitis B via occupational exposure. The importance of education when dealing with HIV and HBV cannot be stressed enough. The nurse in practice must know and understand how HIV is transmitted, and the practical methods to prevent transmission.

Studies show that HIV infection is transmitted by blood, semen, and vaginal secretions. HIV has also been isolated from other body fluids such as saliva, tears, urine, and cerebrospinal fluid. HBV is found in relatively high concentration in blood and is also present in other body fluids including saliva. Therefore, when discussing precautions that health care workers must take, presume that all body fluids are infective.

Nurses are at risk of occupational exposure to HIV and HBV infection. To decrease risk follow the three P's to prevention:
Protection, Precaution, and Preparation.

Use Protections:

- Follow universal precautions at all times.
- Use gowns, gloves, mask, and eye wear when appropriate.
- Follow body substance isolation when indicated.
- Complete HepB vaccination series and follow-up evaluation.

Take Precautions:

- Maintain your skin integrity. Open sores, lacerations, extreme cracking, etc. require special precautions. Check with your supervisor and employee health service.
- Use as few needles as possible.
- Use the smallest bore needle appropriate for the job.
- Use safety devices and techniques at every opportunity.
- Utilize instrumentation in cleaning up sharps.
- Do not hurry. Handle needles and sharps with care at all times.
- **Do not recap needles (whenever possible).**
- If there is no other viable alternative and recapping is absolutely necessary, use the "one-handed scoop" technique.
- Make sure disposal containers are available in all appropriate locations.
- Do not force sharps into an already full container.

Be Prepared:

- Educate yourself on HIV/HBV transmission.
- Know your institutional policy on occupational exposure.
- Know and follow the institution's policy on infection control, occupational safety, and clean up of hazardous waste.
- Know where the disposal containers are located.
- Know what to do, who to notify, and where to go if an exposure occurs.
- Think ahead of time. Know what you would do if anti-viral therapy was recommended.
- Know your rights under workers compensation, employee benefits, OSHA, and your collective bargaining agreement.
- Know who is financially responsible for payment of exposure-related expenses and follow-up.

Enclosed is a card that describes what you should do if you experience an occupational exposure to bloodborne pathogens. Keep it with you at all times and remember to remain CALM.

OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS

If a potential exposure occurs:
Remain CALM - Act Immediately - Don't Panic

C Clean the wound with soap and water or flush mucous membrane immediately.

Call your supervisor and other appropriate personnel (Employee Health, Infection Control, Emergency Department)

A Act at once. Get an assessment of the exposure, baseline testing, and recommended treatment.

L Locate and complete required documentation. Be thorough.

M Maintain adherence to instructions for counseling, follow-up testing,* drug therapy** and lifestyle changes.

Maintain confidentiality at every step.

* Follow-up testing is currently recommended at 4 weeks & 3 months unless otherwise ordered by your health care provider (1996).

** The CDC believes that there is significant evidence that anti-viral prophylaxis may reduce the risk of HIV transmission. Ideally, post-exposure treatment should start within 1-2 hours of the event. Adverse reactions can occur (1996).

NEW YORK STATE NURSES ASSOCIATION

The New York State Nurses Association gratefully acknowledges the leadership and assistance of the following individuals:

Functional Unit of Direct Care Practitioners (1993):

Chairperson
Margaret Leonard, MSN, RNC,
Vice Chairperson

Florence Dorsey, RN (1993)
Elizabeth James, RN (1994)

Member at Large
May Thomas, RN

HIV/AIDS Advisors:

Ronnie Leibowitz, MA, RN, CIC
Patricia Mohr, BSN, RN
Peter Ungvarski, MSN, RN

New York State Department of Health

Tuberculosis (TB)

Last Reviewed: June 2007

What is tuberculosis?

Tuberculosis is a bacterial disease usually affecting the lungs (pulmonary TB). Other parts of the body can also be affected, for example lymph nodes, kidneys, bones, joints, etc. (extrapulmonary TB). Approximately 1,300 cases are reported each year in New York State.

Who gets tuberculosis?

Tuberculosis can affect anyone of any age. People with weakened immune systems are at increased risk.

How is tuberculosis spread?

Tuberculosis is spread through the air when a person with untreated pulmonary TB coughs or sneezes. Prolonged exposure to a person with untreated TB usually is necessary for infection to occur.

What is the difference between latent tuberculosis infection and tuberculosis disease?

Latent tuberculosis infection (LTBI) means the person has the TB germ in their body (usually lungs), but has yet to develop obvious symptoms. In latent TB, the person has a significant reaction to the Mantoux skin test with no symptoms of tuberculosis, and no TB organisms found in the sputum. Tuberculosis disease indicates the person has symptoms, a significant reaction to a Mantoux skin test and organisms found in the sputum. In order to spread the TB germs, a person must have TB disease. Having latent TB infection is not enough to spread the germ. Tuberculosis may last for a lifetime as an infection, never developing into disease.

What are the symptoms of tuberculosis?

The symptoms of TB include a low-grade fever, night sweats, fatigue, weight loss and a persistent cough. Some people may not have obvious symptoms.

How soon do symptoms appear?

Most people infected with the germ that causes TB never develop active TB. If active TB does develop, it can occur two to three months after infection or years later. The risk of active disease lessens as time passes.

When and for how long is a person able to spread tuberculosis?

A person with TB disease may remain contagious until he/she has been on appropriate treatment for several weeks. However, a person with latent TB infection, but not disease, cannot spread the infection to others, since there are no TB germs in the sputum.

What is the treatment for tuberculosis?

People with latent TB infection should be evaluated for a course of preventive therapy, which usually includes taking antituberculosis medication for several months. People with active TB disease must complete a course of treatment for six months or more. Initial treatment includes at least four anti-TB drugs, and medications may be altered based on laboratory test results. The exact medication plan must be determined by a physician. Directly observed therapy (DOT) programs are recommended for all TB patients to help them complete their therapy.

What can be the effect of not being treated for tuberculosis?

In addition to spreading the disease to others, an untreated person may become severely ill or die.

What can be done to prevent the spread of tuberculosis?

The most important way to stop the spread of tuberculosis is for TB patients to cover the mouth and nose when coughing, and to take all the TB medicine exactly as prescribed by the physician.

What is multidrug-resistant tuberculosis (MDR-TB)?

This refers to the ability of some strains of TB to grow and multiply even in the presence of certain drugs which would normally kill them.

What is extensively drug-resistant tuberculosis (XDR-TB)?

Extensively drug-resistant TB (XDR-TB) is a subset of MDR-TB in which the strains of TB bacteria are resistant to several of the best second-line drugs for TB. These strains are very difficult to treat. XDR-TB cases make up approximately 10 percent of MDR-TB cases.

Who gets MDR-TB?

TB patients with drug sensitive disease may develop drug resistant tuberculosis if they fail to take antituberculosis medications as prescribed, as well as TB patients who have been prescribed an ineffective treatment plan. TB cases diseased with MDR-TB can transmit the drug resistant infection to other individuals.

What is the treatment for multidrug-resistant tuberculosis?

For patients with disease due to drug resistant organisms, expert consultation from a specialist in treating drug resistant TB should be obtained. Patients with drug resistant disease should be treated with drugs to which their organisms are susceptible. The effectiveness of treatment for latent infection with MDR-TB is uncertain.

What can be done to prevent the spread of MDR-TB?

Ensuring people with MDR-TB take all their medication and teaching patients to cover their mouth and nose when coughing and sneezing can reduce the risk of spread of MDR-TB. In addition, directly observed therapy should be used to ensure patients complete the recommended course of therapy.

Revised: June 2007