

# Hepatitis B Fact Sheet

A Publication of the Hepatitis C Support Project

a series of fact sheets written by experts in the field of liver disease



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## Preventing Hepatitis B at Home and in Personal Care Settings

**H**epatitis B is a liver infection caused by the hepatitis B virus (HBV). In the United States, about one in 20 people has been infected with HBV, one-third of them say they do not know how they became infected.

Most experienced short-term or “acute” HBV infections. But an estimated 2 million Americans are chronically infected with HBV, which means they have long-term infection and can infect others.

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**Risky Items: While many states have laws to protect consumers from infections in commercial tattoo parlors, personal care salons and piercing shops, many states do not routinely inspect these businesses to make sure that safety precautions are followed. This is why it is so important that consumers be proactive to make sure that everything is done to prevent possible transmission of hepatitis, HIV, and other infections.**

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While there is a safe and effective vaccine that prevents hepatitis B, to date the vaccination program has focused primarily on newborns and school-age children. Many teens and adults in the United States have not yet been vaccinated. In 2007, for example, an estimated 43,000 people were newly infected with HBV. Rates were highest among adults, particularly males aged 25–44, according to the Centers for Disease Control and Prevention (CDC).

HBV is easily spread through blood-to-blood contact, sharing needles during injection drug use, and sexual activity, which accounts for about one-third of all new infections each year in the United States. When infected mothers give birth, they frequently infect their newborns unless the infant is immunized against hepatitis B within 12 hours of birth, and is given hepatitis B immune globulin (HBIG), which contains hepatitis B antibodies to help prevent infection. While many children and adults with hepatitis B have no symptoms, over time this liver infection can cause cirrhosis (liver scarring) and liver cancer.

### How is hepatitis B spread?

Hepatitis B is spread through contact with blood or body fluids (**excluding** urine, feces, tears and saliva) of an infected person. For example, you can become infected if you touch HBV-infected



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blood and you have a cut or rash on your hand that allows the virus to enter your body. You could also become infected if body piercers or tattooists re-use needles and ink. A high school student could contract hepatitis B if he or she shared pierced earrings or even toothbrushes with an infected friend.

Hepatitis B is far more infectious than hepatitis C or HIV, because there are very high concentrations of HBV in the blood and body fluids of infected people. HBV is also far more resilient than hepatitis C viruses or HIV. CDC has reported that HBV can live outside the body for at least seven days and can live for several days in dried blood on table surfaces, needles, syringes and razors.

You never know who has hepatitis B and who does not, because the infection often causes no symptoms for years or decades. Also, about 5 to 10 percent of people who are immunized against hepatitis B never develop enough protective antibodies from the vaccine to protect them from infection. That is why it is important to follow these safety precautions:

- Use standard safety or universal precautions and always put a barrier between yourself and others' blood and bodily fluids.
- Practice safer sex.

- Never share or re-use any personal care items (toothbrushes, razors, etc.)

You really never know who has a bloodborne infection and who does not.

### How is HBV Transmitted in Daily Life?

Because HBV is found in infected blood at high concentrations, it can be transmitted by personal care items such as razors and equipment used by manicurists, estheticians (skin care specialists), barbers and cosmetologists. This can happen when even a small amount of infected blood, so tiny it cannot be seen, stays on equipment and comes into contact with an open cut or sore, rash or eyes, mouth or nostrils (mucous membranes) of another person.

Other equipment that comes into contact with blood includes tattooing and body piercing needles, cuticle scissors, nail files and emery boards, razors and hair clippers, hair removal tools such as tweezers and electrolysis equipment and even hair-cutting scissors and combs.

The transmission of HBV through personal care procedures has not been well studied. The CDC continues to study these practices and the risk tattooing and piercing practices pose. What has been well-documented is the high rate of transmission of

HBV through improper sterilization and re-use of medical equipment, including needles, syringes, IV tubes and other medical equipment.

### Keeping It Safe in Personal Care Settings

#### **Disposable Items:**

Most tools used by tattooists, body piercers, manicurists, and barbers should be used only once, on a single person. Professional tattooists, piercers, and electrologists should always use new, disposable needles for each customer; disposable ink pots for tattooing should also be used. Paper emery boards, files, orange wood sticks, cotton balls or swabs, sponges, neck strips, and other items that cannot be cleaned should be used on only one person than disposed.

Substitute single-use items for reusable items. Make sure a tattoo artist always opens and uses new ink pots in front of you.

#### **Risky Items:**

While many states have laws to protect consumers from infections in commercial tattoo parlors, personal care salons and piercing shops, many states do not routinely inspect these businesses to make sure that safety precautions are followed. This is why it is so important that consumers be proactive to make sure that everything is done to prevent possible transmission of hepatitis, HIV, and other infections.

Blade or scraper tools used to trim calluses (such as Credo blades) are especially likely to come into contact with blood. California, for example, prohibits the use of such tools in nail salons. Needle-like instruments used to extract skin blemishes are also prohibited. Cutting cuticles presents a risk for contact with blood, and many experts recommend that nail salon workers should not cut cuticles. Straight razors also are likely to draw blood; therefore, disposable blades or safety razors should be used and discarded after each client.

### **Cleaning and Disinfecting:**

Equipment that is used on more than one person should be properly cleaned and disinfected between users. For procedures that pierce the skin, disposable tools should be used unless they can be completely sterilized. Sterilization can be done using steam or dry heat. An autoclave is a machine that sterilizes using both heat and pressure.

Tools should be cleaned with a disinfectant solution. Commercial products such as Barbicide disinfect rather than sterilize. Although not well studied, research suggests that commercial solutions may not kill all hepatitis viruses. Look for an EPA-registered hospital grade product that kills bacteria (bactericide), viruses (virucide), and fungi (fungicide).

Items should be immersed in a

solution for at least 10 to 20 minutes. Small items may be stored in the disinfectant solution between uses. Commercial solutions should be changed at least once per week or when visibly dirty.

Although the actual needles and blades are disposable, tattoo guns, razor blade handles, and electrolysis machines should be thoroughly cleaned with a disinfectant solution between uses. Don't be afraid to ask about a business' disinfectant practices; your health depends on it.

Recently, a new hard surface cleaning product called PURE Hard Surface™ was found to kill hepatitis B and C viruses and HIV within 60 seconds. This cleanser is reported to be more effective and fast-acting than many more toxic cleansers.

### **Work Space Precautions:**

- Work spaces should be disinfected after each client and organized so used or contaminated equipment is separated and never mixed up.
- Lotions, powders, and other products should be kept in containers that allow for dispensing a portion of the product without contaminating the container, and sanitary applicators should be used for cosmetics.
- Manicurists should not use soaking water for more than one customer.

- Soaking bowls and foot spas should be disinfected after each user.
- Counters, chairs, lamps, and other surfaces should be cleaned regularly with a disinfectant solution.
- Used razor blades and other sharp items should be discarded in a puncture-proof container.
- Nail and hair cuttings should be disposed of properly.
- Used towels, sheets, and gowns should be kept in a covered receptacle and washed in hot water with detergent.

Personal care professionals should be educated about disease transmission and trained to use proper health and safety procedures. Manicurists, cosmetologists, barbers, estheticians, and electrologists must be licensed in all states.

Workers should wash their hands vigorously with soap and water for at least 20 seconds before each customer and, if appropriate, wear disposable gloves.

- Any cuts or sores should be covered with a waterproof bandage.

One of the best steps people can take to keep it safe is to bring their own equipment to the nail salon or barbershop. This is especially important for items like cuticle scissors and razors that are likely to come into contact with blood. Some professionals will keep per-

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sonal “client packs” or kits at the salon with tools to be used only for a specific customer.

## Keeping Your Home Safe

Disinfection is also important in the home, especially if a family member has hepatitis B or some other blood borne infection.

Never share personal care items:

- For the reasons already mentioned, neither adults nor children should ever share nail clippers, nail files, pierced earrings, diabetic glucose meters especially those that use the same lancet or needle, or toothbrushes. Gums can bleed and HBV can remain on toothbrushes after use.
- Have latex gloves or safety gloves readily available in your home and car to handle blood spills. If you don't have gloves, grab a plastic bag to use as a makeshift glove. Remember to wash your hands afterwards.

- Bandage and cover all open cuts or bruises. These serve as entry and exit points for viruses. Keep them clean and covered to prevent infection.
- Use bleach disinfecting solutions in bathrooms, diapering areas and other places where germs are found.

If there has been a blood spill, make a solution of one-part bleach and nine-parts water. Soak the blood-exposed area for about 20 minutes. Then clean with soap and water. Remember to wear gloves, carefully dispose of contaminated clothing, and wash your hands after you remove your gloves.

### **Teach your children age-appropriate standard precautions.**

Teach them never to touch blood, and to get an adult whenever someone is bleeding. Remember, you never know who has a blood borne infection, and who has or has not been immunized.

*Here is a recipe for a disinfecting solution that can be used for general disinfection:*

**Mix ¼ cup of bleach (5.25% sodium hypochlorite) with one gallon of cool water, or for a smaller portion mix one tablespoon of bleach with a quart of cool water.**

## **For more information about hepatitis B immunization, visit the following websites**

**Centers for Disease Control and Prevention website on hepatitis B immunization of infants & children:**

<http://www.cdc.gov/hepatitis/HBV/VaccChildren.htm>

**Centers for Disease Control and Prevention website on hepatitis B immunization of adults:**

<http://www.cdc.gov/hepatitis/HBV/VaccAdults.htm>

**Immunization Action Coalition provides extensive information on all childhood immunizations, including hepatitis B.**

<http://www.immunize.org>

**National Network for Immunization Safety provides up-to-date, science-based information about immunization.**

<http://www.immunizationinfo.org>

**American Academy of Pediatrics, an organization of 57,000 pediatricians, issues recommendations to ensure childhood health and safety.**

<http://www.aap.org>

**For more information about hepatitis B, visit the following websites.**

**Hepatitis B Foundation:**

<http://www.hepb.org>

**HIVandHepatitis.com**

<http://hivandhepatitis.com>

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The information in this fact sheet is designed to help you understand and manage HBV and is not intended as medical advice. All persons with HBV should consult a medical practitioner for diagnosis and treatment of HBV.

For more information about hepatitis B, visit the following websites.

**Hepatitis B Foundation: [www.hepb.org](http://www.hepb.org) • [HIVandHepatitis.com](http://HIVandHepatitis.com)**

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