



**HEPATITIS B FOUNDATION**  
700 East Butler Avenue  
Doylestown, PA 18901-2697  
Phone: (215) 489-4900  
Email: info@hepb.org

**CAUSE FOR A CURE**  
www.hepb.org

## **HEPATITIS B FOUNDATION BACKGROUNDER**

**DOYLESTOWN, PA**– The Hepatitis B Foundation is the only national nonprofit organization solely dedicated to finding a cure for hepatitis B and improving the quality of life for all those affected worldwide through research, education and patient advocacy.

It is committed to raising funds for focused research, promoting disease awareness, supporting immunization and treatment initiatives, and serving as the primary source of hepatitis B information for patients and their families, the medical and scientific community, and the general public.

As is often the case with nonprofit organizations that dedicate themselves to important public health initiatives, the *Hepatitis B Foundation* was created in response to a personal story. In 1991, Paul and Janine Witte, and Timothy and Joan Block, were deeply moved by the plight of a young family affected by hepatitis B.

To the dismay of the Wittes and Blocks, they discovered there was no place for this family to turn for support, nor was there any organization devoted to finding a cure for hepatitis B. And so, they decided to start their own foundation.

With the personal support of Dr. Baruch Blumberg, who won the Nobel Prize for his discovery of the hepatitis B virus in 1976, the Wittes and Blocks worked tirelessly to establish the Hepatitis B Foundation (HBF). The HBF has since grown from a local grassroots effort into a professional organization with a global reach.

The HBF now leads numerous efforts to focus biomedical research on hepatitis B and promote innovative scientific exchange among academia, industry and government through the annual Princeton Workshop for national leaders in the field, the International Hepatitis B Meeting, student internship programs, and a distinguished lecture series.

In 2004, the HBF established an independent nonprofit research center, named the *Institute for Hepatitis and Virus Research* (also known as the “Pennsylvania Commonwealth Institute”), to serve as its research arm and provide a state-of-the-art facility for scientists to focus on antiviral drug discovery for hepatitis B, and early detection biomarkers for primary liver cancer, the most fatal consequence of a chronic hepatitis B infection.



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## **About the Hepatitis B Foundation**

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The foundation also values the importance of education in fighting this deadly disease, and provides training for health care providers, distributes free newsletters and literature, helps sponsor screening and immunization programs, coordinates a Speakers Bureau, and assists with media campaigns to raise the profile of hepatitis B. The HBF website, located at [www.hepb.org](http://www.hepb.org), has become the major portal of hepatitis B information with more than one million visits from 135 countries in the past 18 months.

In the patient advocacy arena, the HBF provides expert testimony about hepatitis B to both state and federal legislators, organizes the only national patient conference for hepatitis B each year, and supports national initiatives to advance hepatitis B as an urgent public health issue. The primary goal of the HBF advocacy program is to ensure that hepatitis B is not forgotten.

Among the HBF's key partners are the National Institute for Digestive Diseases and Kidney Diseases of the National Institutes of Health; Centers for Disease Control and Prevention; Institute for Hepatitis and Virus Research; Drexel University College of Medicine; University of Oxford, United Kingdom; and the Pennsylvania Department of Health.

Successful nonprofit partnerships include the American Liver Foundation, Asian Liver Center at Stanford University, National Task Force on Hepatitis B, Children's Hospital of Philadelphia Vaccine Education Center; Chinese Health Information Center at Thomas Jefferson University Hospital; Delaware Valley Hepatitis Treatment, Research and Education Center, Answer to Cancer Foundation, Hepatitis B Initiative, Parents of Kids with Infectious Diseases, Immunization Action Coalition, and Hepatitis B Information and Support ListServ (HB-L).

The HBF mission is to help create a future that is brighter and more hopeful for the 400 million people who live with chronic hepatitis B worldwide through its important research, education and patient advocacy programs.

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For more information, contact Peggy Farley, Community Relations, at 215.489.4900 or email [peggy@hepb.org](mailto:peggy@hepb.org)

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## Hepatitis B Fact Sheet

### What is Hepatitis B?

Hepatitis B is the most common serious liver infection in the world. It is caused by the hepatitis B virus (HBV) that attacks liver cells and can lead to cirrhosis, liver failure, and/or fatal liver cancer. The virus is transmitted through blood and bodily fluids that contain infected blood.

HBV is 100 times more infectious than the HIV/AIDS virus. Yet, hepatitis B can be prevented with a safe and effective vaccine. Unfortunately, for those who are chronically infected with HBV, the vaccine is too late. There are, however, promising new treatments for HBV.

### How many people are affected by hepatitis B?

#### In the World

- 2 billion people have been infected with HBV (1 out of 3 persons)
- 10 to 30 million people will become infected with HBV each year
- 400 million people worldwide are chronically infected with HBV
- 1 million people die each year from the complications of chronic HBV

#### In the United States

- 12 million Americans have been infected with HBV (1 out of 20 persons)
- Up to 100,000 new people will become infected with HBV each year
- 1.25 million Americans are chronically infected with HBV
- 5,000 Americans die each year from the complications of chronic HBV

### How is hepatitis B transmitted?

The hepatitis B virus is transmitted through blood and bodily fluids infected with blood, unprotected sex, illicit drug use, and from an infected woman to her newborn during pregnancy or delivery. Most Americans are infected with HBV through sexual transmission. Outside the U.S., the most common route of transmission is from an infected woman to her newborn baby.

Hepatitis B *cannot* be spread through casual contact such as hugging, shaking hands, coughing, sneezing, or eating food prepared by an infected person.

### What are the symptoms of hepatitis B?

Hepatitis B is known as the “silent disease” because most people who are infected do not have any symptoms, or if they do, mistake them for the flu. Otherwise, symptoms can range from nausea and fatigue to more serious ones such as jaundice (yellowed eyes and skin) and dark urine.

### What is chronic hepatitis B?

If a person tests positive for the hepatitis B virus for more than six months, then they are diagnosed as having a “chronic hepatitis B infection”. The risk of developing a chronic infection is inversely proportional to their age. The younger one is, the greater the risk of developing a chronic HBV infection. That is, while 10% of adults will become chronically infected, up to 50% of young children and 90% of infants will become chronically infected. In the U.S., it is estimated that one-third of adults living with chronic hepatitis B were infected as babies or young children.

A person who develops a chronic HBV infection is able to pass the virus on to others. In addition, they live with a 200 times greater risk of developing serious cirrhosis and/or fatal liver cancer later in life - usually in their prime years.



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### Hepatitis B Fact Sheet

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#### Who is at increased risk for hepatitis B?

- babies born to mothers who are infected with HBV
- close household contacts with an infected person
- children adopted from a country where HBV is prevalent
- sexually active teens or adults who have had multiple partners or unprotected sex
- those diagnosed with a sexually transmitted disease (STD)
- illicit drug users who share needles or other drug paraphernalia
- health care or emergency providers who have contact with blood
- patients on kidney dialysis
- those living in an institutional setting, such as prisons or group homes

#### Can hepatitis B be prevented?

Yes, hepatitis B can be prevented through a safe and effective vaccine. The CDC and the American Academy of Pediatrics recommend that all infants and children up to 18 years of age receive the HBV vaccine. Almost all 50 states have school entry laws that require the vaccine, and many colleges are now requiring the HBV vaccine upon admission. The HBV vaccine is also recommended for all adults who have risk factors because of occupational or lifestyle choices.

#### Is there a cure for hepatitis B?

Although there is no cure for chronic hepatitis B, there are currently five medications that have been approved for adults with HBV (and two for children) by the U.S. Food and Drug Administration (FDA) that either boost the immune system or slow down the virus.

- **Interferon-alpha** (Intron A) is given by injection several times a week for six months to a year, or sometimes longer. The drug can cause side effects such as flu-like symptoms, depression, and headaches. Approved in 1991 (Adults and children).
- **Lamivudine** (Epivir-HBV) is a pill that is taken once a day, with almost no side effects, for at least one year or longer. It can cause possible development of viral resistance during and after treatment. Approved in 1998 (Adults and children).
- **Adefovir dipivoxil** (Hepsera) is a pill taken once a day, with few side effects, for at least one year or longer. It can cause possible development of kidney problems, which are reversible when the drug is stopped. Approved in 2002 (Adults).
- **Entecavir** (Baraclude) is a pill taken once a day, with almost no side effects for up to one year. It may cause potential development of viral resistance. Approved April 2005 (Adults).
- **Pegylated Interferon** (Pegasys) is given by injection once a week usually for six months to a year. The drug can cause side effects such as flu-like symptoms, depression and other mental health problems. Approved May 2005 (Adults).

The approved HBV drugs provide valuable treatment options for the 400 million people who are chronically infected worldwide. In addition, there are several promising new drugs in the research pipeline that provide hope in the search for a cure.

Visit the *Hepatitis B Foundation Drug Watch* at [www.hepb.org/drugwatch](http://www.hepb.org/drugwatch) for a list of approved drugs and compounds in development for chronic hepatitis B.

## Hepatitis B Foundation Resources

The Hepatitis B Foundation has created a wide variety of materials for those seeking more information about hepatitis B and our organization. Through Brochures, Information Sheets, electronic and print Newsletters, and our website, we are reaching out to patients and families, health care providers, researchers, and the general public.

All of our materials are free of charge, and whenever possible, available in an easy-to-print PDF format on our website as well. Visit [www.hepb.org](http://www.hepb.org).

### **BROCHURES**

#### About the Hepatitis B Foundation

This brochure briefly summarizes the history, mission, and programs of the Foundation.

#### Someone You Know Has Hepatitis B

An overview of hepatitis B as the world's most common serious liver infection..

#### Protect Yourself and Those You Love

Stresses the important message that hepatitis B is a vaccine-preventable disease.

#### Vaccination: The First Loving Act

Reassures adoptive parents that hepatitis B is a vaccine-preventable disease.

#### Living With Chronic Hepatitis B

Written for patients and their loved one affected by hepatitis B (translated into Chinese)

#### Meet O'Liver: Viral Hepatitis Mascot

Introduces the Hepatitis B Foundation's liver mascot, O'Liver.

### **INFORMATION SHEETS**

1. The Liver
2. Hepatitis B Fast Facts - also available in *Chinese, Vietnamese, Korean, Spanish*
3. Understanding Hepatitis B Blood Tests - also available in *Chinese, Vietnamese, Korean, Spanish*
4. Living with Chronic Hepatitis B - also available in *Chinese, Vietnamese, Korean, Spanish*  
Hepatitis B Treatment Information - also available in *Chinese, Vietnamese, Korean, Spanish*
5. Guidelines for Pregnant Women with Hepatitis B
6. Hepatitis B Clinical Trials
7. The Hepatitis B Vaccine
8. Getting a Letter from the Blood Bank
9. Hepatitis B and Health Care Providers
10. Hepatitis B Resource Directory

### **NEWSLETTERS**

**B Informed** (print and online) Includes a "Drug Watch" of approved drugs and compounds in development; research updates; Foundation news, and special feature articles.

**B Connected** (print and online) Features practical health tips, frequently asked questions, and useful information for patients and families to live well with chronic hepatitis B.

**B News You Can Use** (electronic) Monthly e-newsletter that highlights current top stories, research and treatment updates, journal abstracts, upcoming conferences, and more.



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### **Meet Michelle K. - One of 1.25 Million Americans Living with Chronic Hepatitis B**

**DOYLESTOWN, PA** - Michelle is a young, married woman with children, who happens to be one of 1.25 million Americans who live with chronic hepatitis B. She also lives with the increased risk of developing cirrhosis and/or fatal liver cancer, two potentially serious consequences of a chronic hepatitis B infection.

Michelle was born in 1969 to an American father and Vietnamese mother, who had met and married during the Vietnam War. She grew up healthy and happy in Kentucky, unaware that her mother had unknowingly passed on the hepatitis B virus to her at birth. When Michelle was born, there was no hepatitis B vaccine available to prevent this infection. Had she been immunized within 12 hours of birth, she would be free of infection today.

“I found out about my infection through a routine blood test during my first pregnancy in 2000,” Michelle said. Kentucky was one of the few states in the country that required pregnant women to be screened for hepatitis B. “The nurse called me at home to tell me my hepatitis B test had come back positive. I immediately thought it was a lab error.”

“Eight years earlier, I had donated blood and was told that I had hepatitis B. I was re-tested and they told me I had never been exposed to hepatitis B and was free of infection,” she recalled.

But after the hepatitis B test came back positive during her pregnancy, Michelle went to see a specialist for more tests. This time, he confirmed she had chronic hepatitis B. Most teens and adults infected with the hepatitis B virus experience only a brief or acute infection. However, when newborns like Michelle are infected, they face a 90 percent risk of developing a chronic or lifelong hepatitis B infection.

“Needless to say, after my diagnosis I experienced the emotional rollercoaster of denial, depression and then acceptance of my hepatitis B infection,” she said.

Her immediate concern was to make sure her newborn daughter would not be infected with hepatitis B.

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### Meet Michelle, One of the 1.25 Million Americans

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“During my delivery, I made sure the hospital staff was aware of my hepatitis B, and I constantly reminded them to make sure my baby received the hepatitis B vaccine within 12 hours of her birth, which prevents mother-to-child infection 90 percent of the time. Fortunately, the hospital staff was on top of things and my daughter was vaccinated properly and today is free of hepatitis B.”

Michelle’s husband had been tested for hepatitis B after her initial diagnosis, and fortunately, tested negative. He immediately started the three-dose hepatitis B vaccine series, which is considered one of the safest and most effective vaccines.

After a great deal of pressure from Michelle, her parents were finally tested for hepatitis B. “When my mom asked her doctor to test her for hepatitis B, he asked, ‘Why?’ He saw no reason to test her, even though Asian-Americans are at extremely high risk of hepatitis B.”

Her mother’s hepatitis B test came back positive. Later that year, Michelle learned that her maternal grandmother, who lives in the United States, also tested positive for hepatitis B. “After this revelation, our family history came pouring out,” Michelle explained. “I learned that one of my mom’s sisters also has hepatitis B, as do other family members. It’s clear to me that hepatitis B has silently infected generations of my family, and only continued testing and vaccination will stop this terrible cycle”

Today, Michelle has a second child, who was promptly vaccinated at birth and remains free of hepatitis B.

“Knowing that both my children were properly immunized against hepatitis B at birth gives me hope that this terrible cycle of infection in my family can be stopped,” said Michelle. “Sadly though, this means that only my children’s branch of my family tree will be free of hepatitis B. I wish I could say the same for the rest of my extended family.”

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