

# Hepatitis B Vaccine

## COMMUNICABLE DISEASE CONTROL

### What are vaccines?

Vaccines are also called needles, shots or immunizations. They help our immune systems learn to recognize the germs that cause diseases, and to fight them.

Vaccines not only protect the people who are immunized but may also protect those who are not. This is because an immunized person is less likely to spread infection to others.

Before vaccines were available, little could be done to prevent serious diseases such as tetanus, diphtheria, pertussis (whooping cough), polio, measles and rubella. Now, very few Canadians get sick or die from these diseases because people are protected by immunization. However, there are many countries where vaccines are not routinely used and people do become infected. Experience has shown us that these diseases could again become a concern in Canada, if we don't continue to immunize against them.

### What is hepatitis B?

- Hepatitis B is a viral disease that attacks the liver.
- Symptoms include tiredness, fever and loss of appetite. Signs include yellow skin and eyes (jaundice) that may last for weeks or months.
- Hepatitis B currently affects 250,000 Canadians. Manitoba averages eight new acute cases and more than 70 chronic cases each year.
- Many people who get hepatitis B do not get sick; others may feel slightly ill and their skin may turn yellow. A few may become severely ill and die.

- Many people with hepatitis B don't know they have the disease and can, therefore, pass it on to others.
- Most people get better after having the disease but some carry hepatitis B infection for the rest of their lives. These individuals are also known as hepatitis B chronic carriers.
- About 10 of every 100 adults, and 90 of every 100 babies who get hepatitis B, become carriers.
- People who become hepatitis B carriers can develop permanent liver damage and sometimes die.
- Hepatitis B is one of the main reasons people get liver cancer.

### How is hepatitis B spread?

Hepatitis B virus (HBV) is spread from an infected person to another individual by:

- blood-to-blood contact (ex: injuries from cuts or bites, ear or body piercing using contaminated equipment, sharing needles, using an infected person's toothbrush);
- intimate sexual contact without a condom;
- an infected mother transmitting the disease to her newborn during delivery.

Children can also contract hepatitis B from infected people in the household, from caregivers, or even from other children who might not be aware they're infected.

*Note: People cannot catch the virus from sneezes, coughs or hugs, or by using the same dishes as someone with hepatitis B.*

Manitoba Health offers a hepatitis B immunization program for students in Grade 4. The program is

offered because the disease can be serious, and is preventable. The hepatitis B immunization program is a series of three injections over several months, given by public health nurses at your child's school, with your permission.

*Following are answers to questions you may have about hepatitis B:*

### **Why give hepatitis B vaccine to my child?**

Most new cases of hepatitis B occur in early adulthood. The vaccine against this disease works best in young children. It also protects children from the virus before they might have a chance to come in contact with it. Hepatitis B is a difficult disease to treat, so prevention is the best method. Manitoba Health recommends immunization for all children in Grade 4 to ensure they are protected well before they may be exposed to the virus.

### **Is the vaccine safe?**

Yes. It is one of the safest vaccines used today and has been used safely in Canada for over 20 years.

It should be noted that some individuals and organizations have concerns about hepatitis B immunization. There is currently no scientific evidence indicating the hepatitis B vaccine causes side effects such as chronic fatigue syndrome, multiple sclerosis, rheumatoid arthritis or diabetes.

### **How many doses are required?**

The vaccine is usually given in a series of three doses over several months during the school year.

### **How is the vaccine given?**

The vaccine is given by injection with a needle into the muscle, usually in the upper arm.

### **Are booster doses required?**

Boosters are not usually needed for healthy individuals.

### **Can the hepatitis B vaccine be given at the same time as other vaccines?**

Yes. It is safe to give more than one vaccine at a clinic visit.

### **What are the side effects?**

Some children may experience minor reactions, such as soreness, redness, warmth or swelling at the injection site, tiredness, or a slight fever lasting one to two days. The risk from the vaccine is much lower than the risk from hepatitis B infection.

### **What should I do if side effects occur?**

You may give Acetaminophen (Tylenol® or Tempra®) for fever. **Never** give acetylsalicylic acid (ASA or aspirin) to children. Placing a cold, damp cloth on the injection site may help ease minor pain.

In rare cases (about one in 500,000 immunizations), a severe allergic or anaphylactic reaction occurs, causing any of the following symptoms:

- hives
- wheezing
- shortness of breath
- swelling of the face, mouth or throat
- low blood pressure causing loss of consciousness

**Report any serious or unusual side effects to your doctor or public health nurse.** Vaccine reactions are recorded and monitored in Manitoba and across Canada.

### **Who should not receive this vaccine?**

- Anyone with a severe allergic reaction to any component of the vaccine including yeast, latex or formaldehyde, should not receive this vaccine. (Vaccine content varies by manufacturer. Check with the public health nurse or the doctor if you are not sure what the vaccine contains.)
- If your child is sick (has more than a mild illness) on the day of immunization, vaccination should wait until he or she is feeling better.
- Most Manitoba children have not received the hepatitis B vaccine as infants. However, if your child was born outside of Manitoba, check the immunization records to see if he or she is already protected from hepatitis B.

## Manitoba's Routine Childhood Immunization Schedule

Age	DaPTP*	Hib	MMR**	HBV	Tdap	PCV7	PPV23	MC	MP	V	Flu
2 months	X	X				X					
4 months	X	X				X					
6 months	X	X				X					X****
12 months			X							X or	
18 months	X	X				X					
4 to 6 years	X		X							X or	
10 years				XXX				X		X	
14 to 16 years					X						
High-risk individuals only						X***	X***	X***	X***	X***	X*** yearly

**DaPTP\*** Diphtheria, acellular Pertussis, Tetanus, Polio (given with Hib)

**Hib** Haemophilus influenzae B

**MMR\*\*** Measles, Mumps, Rubella (given as one shot)

**HBV** Hepatitis B (3-dose series)

**Tdap** Tetanus, diphtheria, acellular pertussis (given as one shot)

**PCV7** Pneumococcal conjugate 7 valent

**PPV23** Pneumococcal polysaccharide 23 valent

**MC** Meningococcal conjugate

**MP** Meningococcal polysaccharide A,C,Y,W-135

**V** Varicella

**Flu** Influenza

**\*\*\*** More than one dose may be required depending on age.

**\*\*\*\*** All children from six to 23 months of age.

**High-risk individuals** are those at risk of infection or complications. For more information, speak with your doctor or public health nurse.

### Your record of protection

Make sure your doctor or public health nurse updates your own, or your child's, immunization

record card, after you receive an immunization. Keep the card in a safe place!

*In Manitoba, vaccination is voluntary.*

## Recommended Resources:

Available at local bookstores:

- *Your Child's Best Shot: A Parents' Guide to Vaccination* (2002). Canadian Paediatric Society
- *What Every Parent Should Know About Vaccines* (2002). Dr. Paul Offitt & Dr. Louis M. Bell

Available on the Internet:

- Government of Manitoba – Public Health Branch  
[www.gov.mb.ca/health/publichealth/cdc/index.html](http://www.gov.mb.ca/health/publichealth/cdc/index.html)
- Public Health Agency of Canada – Immunization  
[www.phac-aspc.gc.ca/im/index.html](http://www.phac-aspc.gc.ca/im/index.html)
- Canadian Public Health Association – Canadian Coalition for Immunization Awareness and Promotion  
[www.immunize.cpha.ca](http://www.immunize.cpha.ca)
- Canadian Paediatric Society  
[www.caringforkids.cps.ca](http://www.caringforkids.cps.ca)
- National Immunization Program – Centers for Disease Control and Prevention – USA  
[www.cdc.gov](http://www.cdc.gov)
- Immunization Action Coalition  
[www.immunize.org](http://www.immunize.org)

*Information about the shots you or your children receive may be recorded in the Manitoba Immunization Monitoring System (MIMS). This computerized database allows your doctor, your child's doctor or your public health nurse to find out what shots you or your child have had or need to have. Information collected in MIMS may be used to produce vaccination records, or notify you or your doctor if someone has missed a particular shot. Manitoba Health may use the information to monitor how well different vaccines work in preventing disease.*

*If you need information on the shots that you or your child has received, contact your doctor, your local public health unit or nursing station.*

## For more information

Talk to your doctor or public health nurse, or call Health Links-Info Santé in Winnipeg at 788-8200, toll-free elsewhere in Manitoba 1-888-315-9257.

*Local Public Health Unit Stamp*