

Hepatitis B

1 What vaccine-preventable disease is transmitted from one person to another through contact with an infected person's blood?

- A. Chickenpox
- B. HPV
- C. Hepatitis B
- D. Influenza

2 What type of vaccine is the hepatitis B vaccine?

- A. Recombinant vaccine
- B. Live, "weakened" viral vaccine
- C. Combination vaccine
- D. Conjugate vaccine

3 How many doses of the hepatitis B vaccine are typically recommended?

- A. Two
- B. Four
- C. Three
- D. One

4 Hepatitis B is more infectious than which other virus transmitted by blood?

- A. HIV
- B. HPV
- C. Hepatitis C
- D. West Nile Virus

5 Which of the following activities does NOT have the potential to spread hepatitis B virus?

- A. Sharing personal items such as washcloths, razors or toothbrushes with someone who is infected
- B. Having sex with someone who is infected
- C. Getting a tattoo
- D. Breastfeeding

6 How long can hepatitis B virus survive outside of the body if a blood spill is not properly cleaned up?

- A. 1 day
- B. 3 days
- C. 5 days
- D. 7 days

7 What makes hepatitis B infection of infants particularly concerning?

- A. They rarely have symptoms
- B. They are at increased risk of becoming chronically infected
- C. Both A and B
- D. None of these

8 About how many chronically infected individuals with hepatitis B will develop long-term liver damage, such as cirrhosis or liver cancer?

- A. 1 in 2
- B. 1 in 4
- C. 1 in 6
- D. 1 in 8

9 Which of these is true of hepatitis B but not hepatitis A?

- A. It affects the liver.
- B. It causes chronic infections.
- C. It is transmitted by blood.
- D. Both B and C.

10 Why is it important to screen pregnant women for hepatitis B in addition to universal newborn vaccination?

- A. The baby can be treated hours after birth to decrease the chance of developing chronic infection
- B. The pregnant woman can be referred to a specialist
- C. Household and sexual contacts can be screened
- D. All of the these

Hepatitis B ANSWERS

1

The correct answer is **C**

The blood of a person infected with hepatitis B typically contains very high quantities of the virus. Therefore, others can be infected by contact with tiny amounts of blood that cannot be seen with the naked eye, such as on washcloths and toothbrushes.

2

The correct answer is **A**

Recombinant vaccines are made by inserting the gene for a viral surface protein into a circular piece of DNA, known as a plasmid, which reproduces inside cells. The plasmid is inserted into cells (i.e., yeast cells) so that as the cells reproduce, the surface protein is also produced. The protein is then purified and used in the vaccine. The human papillomavirus (HPV) vaccine is also made this way.

3

The correct answer is **C**

Three doses of hepatitis B vaccine are recommended. For babies, the first dose is typically given shortly after birth.

4

The correct answer is **A**

Hepatitis B is transmitted through blood and is 100 times more infectious than HIV. An estimated 1 billion infectious viruses are in one-fifth of a teaspoon of blood of an infected person. Thus, exposure to even a minute amount of blood, such as could be found on a shared toothbrush or razor, can cause infection.

5

The correct answer is **D**

Because blood from an infected person is so heavily contaminated with hepatitis B virus, even casual contact like sharing a toothbrush or razor could expose the user to enough virus to become infected.

6

The correct answer is **D**

Hepatitis B virus can survive outside of the body for up to seven days if not properly cleaned up. Blood spills, even if dry, should be cleaned up using gloves and disinfecting the surface with a 1-to-10 bleach-to-water solution.

7

The correct answer is **C**

Many children infected with hepatitis B do not show symptoms, and therefore are not diagnosed. However, about 90 of 100 people infected with hepatitis B as an infant will have chronic, lifelong hepatitis B infection. Similarly, 30 of 100 children infected with hepatitis B between 1 and 5 years of age will be chronically infected. In contrast, only about 2 of 100 infected adults will be chronically infected.

8

The correct answer is **B**

About one in four of those chronically infected with hepatitis B will develop long-term liver damage in the form of cirrhosis (severe liver disease) or cancer of the liver.

9

The correct answer is **D**

While both viruses affect the liver, only hepatitis B virus is transmitted by blood and causes chronic infections. Whereas hepatitis A virus is transmitted through contaminated food or water and does not cause a chronic infection.

10

The correct answer is **D**

Being aware of a pregnant woman's hepatitis B infection prior to delivery allows for certain useful steps such as specialist referral and specific post-partum care. It can also allow the infected individual to alert others close to them who may be at risk.

