

IAC's Q&As on Diseases and Vaccines

These materials are ready for you to copy and hand out to patients

Hepatitis A: Questions and Answers

Information about the disease and vaccines

Chickenpox (Varicella): Questions and Answers

Information about the disease and vaccines

Human Papillomavirus (HPV): Questions and Answers

Information about the disease and vaccine

Measles: Questions and Answers

Information about the disease and vaccines

Meningococcal: Questions and Answers

Information about the disease and vaccines

Influenza: Questions and Answers

Information about the disease and vaccines

What causes influenza?
Viruses cause influenza. There are two basic types, A and B. Their genetic material differentiates them. Influenza A can cause moderate to severe illness in all age groups and infects humans and other animals. Influenza B causes milder disease and affects only humans, primarily children.

How does influenza spread?
Influenza is transmitted through the air from the respiratory tract of an infected person. It can also be transmitted by direct contact with respiratory droplets.

How long does it take to develop symptoms of influenza after being exposed?
The incubation period of influenza is usually two days but can range from one to five days.

What are the symptoms of influenza?
Typical influenza disease is characterized by abrupt onset of fever, aching muscles, sore throat, and non-productive cough. Additional symptoms may include runny nose, headache, a burning sensation in the chest, and eye pain and sensitivity to light. Typical influenza disease does not occur in every infected person. Someone who has been previously exposed to similar virus strains (through natural infection or vaccination) is less likely to develop serious clinical illness.

How serious is influenza?
Although many people think of influenza as a type of cold, it is really a specific and serious disease. Disease complications and death are more common among young children, the elderly, and those with chronic illnesses. In the United States, the number of influenza-associated deaths has increased since 1990. This increase is due in part to the substantial increase in the number of persons age 65 years or older, who are at increased risk for death from influenza complications. An average of 36,000 influenza-associated pulmonary and circulatory deaths

per season occurred during 1990-1999, compared to 19,000 such deaths per influenza season during 1976-1999.

Influenza viruses cause disease among persons of all ages. Rates of infection are highest among children, but the risks for complications, hospitalizations, and deaths from influenza are higher among persons age 65 years or older, young children, and persons of any age who have medical conditions that place them at increased risk for complications from influenza. Case reports and several epidemiologic studies also indicate that pregnancy can increase the risk for serious medical complications of influenza.

In nursing homes, up to 60% of residents may be infected, with up to a 20% fatality rate in the infected. Risk for influenza-associated death is highest among the oldest elderly: persons age 85 years and older are 16 times more likely to die from an influenza-associated illness than persons aged 65-69 years.

Children age two years and younger have hospitalization rates second only to people age 65 years and older. Children younger than age one year are the most likely to be hospitalized. Influenza-associated deaths are uncommon among children but represent a substantial proportion of vaccine-preventable deaths. An estimated annual average of 92 influenza-related deaths occurred among children age 5 years or younger during the 1990s, compared with 32,651 deaths among adults age 65 years or older.

The cost of a severe epidemic has been estimated at \$12 billion. Occasionally, major epidemics occur on an international scale. This is known as a pandemic. The first recording of such an event was in 1580, and at least seven international epidemics have occurred in the nineteenth and twentieth centuries. The "Spanish flu" epidemic of 1918-1919 caused an estimated 21 million deaths worldwide, including more than 500,000 Americans.

How many people in the United States are hospitalized with influenza in a typical year?

A study conducted by CDC and published in the Journal of American Medical Association (JAMA) on September 15, 2004, provided new information on the number of people in the United States who are

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Haemophilus influenzae type b (Hib): Questions & Answers

Information about the disease and vaccines

Pertussis: Questions and Answers

Information about the disease and vaccines

Rotavirus: Questions and Answers

Information about the disease and vaccines

Shingles (Zoster): Questions and Answers

Information about the disease and vaccine

Tetanus: Questions and Answers

Information about the disease and vaccines

Hepatitis B: Questions and Answers

Information about the disease and vaccines

What causes hepatitis B?
Hepatitis B is a liver disease caused by the hepatitis B virus (HBV).

How does HBV spread?
The spread of HBV occurs when blood from an HBV-infected person enters the body of a person who is not infected. This can occur through having sex with an HBV-infected person without using a condom (the efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce spread of HBV).

Sex contact is the most common reason for the spread of HBV infection in the United States. The spread of HBV from male to female or female to male accounts for about 1 out of 3 acute (recently acquired) HBV infections in adults. The risk of spreading HBV increases if the male or female has multiple sex partners, a history of a sexually transmitted disease, or has sex with an HBV-infected person. About 1 out of 4 acute HBV infections occur among men who have sex with men.

HBV is also easily spread by sharing drugs, needles, or "works" when "snorting" drugs. The risk of HBV infection from HBV-contaminated needles/syringes is much greater than the risk of spreading HIV by this method. In the United States, illegal drug use injection accounts for about 16 out of 100 acute HBV infections. Other types of percutaneous (through the skin) exposures, including tattooing and body piercing, have also been reported to result in the spread of HBV when good infection control practices have not been used. Unsafe injections in medical settings are a major source of HBV spread in many developing countries and might be a risk for United States residents traveling abroad. If medical care is required in settings that have poor infection control practices, HBV is also spread through needles/syringes or sharps exposures on the job and from an infected mother to her baby during birth. Breastfeeding has not been associated with the spread of HBV.

HBV can also be spread during childhood. Most early childhood spread occurs in households of people with chronic (life-long) HBV infection, but the spread of HBV has also been seen in day-care centers and schools. The most likely way that the spread of

HBV occurs during early childhood involves contact between an infected person's body fluids (e.g., their blood or drainage from their wounds or skin lesions) and breaks in the child's skin. HBV can be spread also when an HBV-infected person bites another person who is not infected. HBV can be spread also by an infected person pre-chewing food for babies, and through contact with HBV from sharing personal care items, such as razors or toothbrushes. The virus remains infectious and capable of spreading infection for at least seven days outside the body. Virus can be found on objects, even in the absence of visible blood.

HBV is not spread through food or water, sharing eating utensils, hugging, kissing, coughing, and sneezing or by casual contact, such as in an office or factory setting. People with chronic HBV infections should not be excluded from work, school, play, childcare, or other settings.

How long does it take to show signs of illness after coming in close contact with a person who has HBV infection?
The incubation period ranges from 45 to 160 days (average 120).

What are the signs and symptoms of hepatitis B?
About 7 out of 10 adults with acute hepatitis B have signs or symptoms when infected with HBV. Children under age 5 years who become infected rarely show any symptoms. Signs and symptoms of hepatitis B might include nausea, lack of appetite, tiredness, muscle, joint, or stomach pain, fever, diarrhea or vomiting, headache, dark urine, light-colored stools, and yellowing of the skin and whites of the eyes (jaundice). People who have such signs or symptoms generally feel quite ill and might need to be hospitalized. In 2006, 4.713 cases of hepatitis B were reported to the CDC and 9% of these cases died from their infection.

How serious is hepatitis B?
Hepatitis B is very serious. About 9 out of 10 infants (who do not receive appropriate prophylaxis at birth), 30 out of 100 children younger than age 5, and about 2 of 100 adults who are infected with HBV are unable to clear HBV from their bodies and become chronically infected. This serious condition is discussed below. Even though people might even

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