

20 QUESTIONS



UNDERSTANDING THE CORRECT ANSWERS



Canadian Coalition
for Immunization Awareness
& Promotion (CCIAP)

immunize.ca

Understanding the correct answers

Question 1: Vaccination is...

(information adapted from *Your Child's Best Shot*, 3rd edition, page 10)

Vaccination (or immunization) is a way to protect people from a disease caused by infection. Years ago, "vaccination" referred only to the smallpox vaccine. Now, vaccination and immunization mean the same thing to most people.

Question 2: What does "getting your shots" mean?

(from CCIAP's web site: <http://immunize.ca/en/specific-groups/childactivities.aspx>)

Getting vaccinated is often called "getting your shots."

Other names for immunization and vaccination are:

- needles
- baby shots
- vaccines

Question 3: What is another name for pertussis?

(information adapted from *Your Child's Best Shot*, 3rd edition, page 55)

Pertussis is also known as "whooping cough", because people with the disease have severe coughing followed by a "whoop" sound before they take their next breath. Pertussis is an infection of the lungs, caused by bacteria called *Bordetella pertussis*. The illness lasts many weeks.

Question 4: What is an antibody:

(information adapted from *Your Child's Best Shot*, 3rd edition, page 8, and from CCIAP's web site: <http://immunize.ca/en/specific-groups/childactivities.aspx>)

An antibody is a type of protein that your immune system produces when bacteria or viruses threaten the body. Your body will also produce special white blood cells called lymphocytes to fight infection. Both do their work to keep you healthy by mixing with or sticking to the surface of a bacterium or virus to help us fight them.

Antibodies make it much easier for white blood cells to destroy any germ that has entered the body. Our immune systems can also make antibodies that latch onto toxins (or poisons) produced by germs. This makes it easier for the body to get rid of these toxins.

What is immunity? When you get sick, your body makes antibodies to fight the disease and to help you get better. These fighters stay in your body, even after the disease has ended. They protect you from getting the same illness again. This is called immunity.

Babies are immune to many diseases because they have antibodies that came from their mothers. Unfortunately, this immunity wears off during the first year of life. The good news is: we can do something to keep our immunity to disease. We can get a vaccine.

Vaccines trick your body so that it thinks it is being attacked by a disease. Your body responds by making antibodies. They stay in your body and protect you from the actual disease, if you are exposed to it.

Question 5: What is another name for chickenpox?

(information adapted from *Your Child's Best Shot*, 3rd edition, page 205)

Chickenpox is also known as varicella. It is an infection caused by the varicella-zoster virus.

The illness causes fever, headache, aches and pains, and a rash that is very itchy in most people.

Question 6: What does "MMR" stand for?

(information adapted from *Your Child's Best Shot*, 3rd edition, pages 155, 177, and 189)

<p>The first "M" stands for measles.</p>	<p>Measles is a severe illness caused by a virus. It causes high fever, runny nose, cough, conjunctivitis (pink eye or swelling of the eyelid), and a rash that lasts 1 to 2 weeks.</p>
<p>The second "M" stands for mumps.</p>	<p>Mumps is an infection caused by the mumps virus. It can cause fever, headache, and swelling of the glands in your cheeks that produce saliva.</p>
<p>The "R" in MMR vaccine stands for rubella.</p>	<p>Rubella is also known as "German measles." It is an infection caused by a virus. Rubella can cause fever, sore throat, swollen glands, and small red spots on the skin that last a few days.</p>

Question 7: What does the term “flu” stand for?

(from CCIAP’s web site: “Questions and Answers about the Flu”,
<http://immunize.ca/en/specific-groups/childactivities/influenza/qa.aspx>)

The word “flu” comes from the word “influenza”.

Influenza is an infection in the throat and lungs. It is caused by the influenza virus.

The problem with this virus is that it spreads easily from person to person in the spray from coughs and sneezes. You can catch the flu if you touch your mouth with unwashed hands, after being in contact with someone who has the flu. The flu causes headaches, chills, a dry cough, body aches, and fever.

The best way to prevent the flu is immunization. Another very important way to prevent the flu is to wash your hands fully and often.

Question 8: If you have pertussis, what is the symptom you will notice most?

(information adapted from *Your Child’s Best Shot*, 3rd edition, pages 55 and 60)

You will notice severe coughing followed by a “whoop” sound. That’s why pertussis is also known as “whooping cough”. The illness lasts many weeks. The cough gets worse and worse until “spells” begin. During a coughing spell the child coughs without being able to take a breath. At the end of a coughing spell, the “whoop” sound happens as the child takes a very deep breath.

Question 9: What does “contagious” mean?

“Contagious” means that a disease is easy to get and easy to spread.

Question 10: What is an epidemic?

An epidemic is when many cases of the same disease happen at the same time among a lot of people. It could also be called an outbreak.

Question 11: What is “natural infection”?

(definition from http://www.gulflink.osd.mil/va/va_tab.htm)

It is a disease (or infection) caused by bacteria or viruses found in the environment. Examples are measles, chickenpox, etc.

Question 12: What are the two ways to get immunity from a disease?

(information adapted from *Your Child’s Best Shot*, 3rd edition, pages 9 and 10)

There are two ways to get immunity:

- by natural infection, and
- by vaccine.

Both produce almost the same results. Let’s use measles as an example.

Natural infection	Vaccine
<ul style="list-style-type: none"> • The first time a person is exposed to the natural form of the measles virus, the virus will infect many cells. The person will get sick before his/her body can set up an immune defence. • After the person has had measles, his/her body will set up an “immune memory” to the disease. This means the person will not get sick from the virus again. • Immunity after measles infection lasts a very long time, if not for life. 	<ul style="list-style-type: none"> • When the person is exposed to the measles vaccine (through immunization), his/her body will create an “immune memory”. This means the person will not get sick if he/she is exposed to the natural form of the measles virus. • Measles vaccine sets up immunity to the illness that lasts many years, if not for life.

Are they the same kind of immunity? Yes. They are two paths that take you to the same goal. The goal is to be immune to the measles virus.

When someone with measles immunity is exposed to the virus, his/her body will respond so quickly that the virus will be destroyed before it can cause an infection.

Do all vaccines produce the same level of immunity as the measles vaccine? Not really. For measles, the results are almost the same. But other vaccines may not protect you from infection to the same degree as the measles vaccine. As well, other vaccines may not protect you from infection as long as the measles vaccine does.

Question 13: What are bacteria?

(information adapted from *Your Child’s Best Shot*, 3rd edition, pages 7 and 8, and from CCIAP’s web site: “Glossary of Terms”, <http://immunize.ca/en/specific-groups/childactivities/influenza/terms.aspx>)

Bacteria are tiny one-celled organisms. There are millions of kinds of bacteria. We could not live without some of them. Others may cause disease and even death.

The “bad” bacteria that live in water, soil, and the air are called germs. They can cause illness.

Another kind of germ that can make humans sick is called a virus. Although a virus enters your body from outside, just like bacteria do, it may be worse than bacteria because it can get inside your body's cells. Bacteria do not get inside our cells; they float around in our bloodstream.

Immunization helps to protect us from germs and the infection they cause.

Question 14: What is the symptom you will notice most with chickenpox?

(information adapted from *Your Child's Best Shot*, 3rd edition, pages 205 and 211)

Children with chickenpox will have a rash that feels very itchy. The illness also causes fever, headache, and aches and pains.

In many children, the first sign of chickenpox is the rash. It first appears on the scalp and face. It may spread quickly down the body and onto the arms and legs. The rash is more intense on the face and trunk than on the hands and feet. The rash may be so itchy that the child is in great distress.

Question 15: Did research in Canada lead to the development of the polio vaccine?

Yes. A team at the University of Toronto worked with Dr. Jonas Salk from the University of Pittsburgh to develop the Salk vaccine for polio.

Visit <http://www.healthheritageresearch.com/index2.html> for more details.

Question 16: What is a booster?

(information adapted from *Your Child's Best Shot*, 3rd edition, page 320)

A "booster" is a repeat immunization that helps protect people, over time, against a certain disease.

Many vaccines that people receive today produce "immune memory" that lasts for a very long time, and sometimes for life. This means you only need to get a shot once for that disease.

With other vaccines, you must have a repeat shot called a "booster" because the first vaccine cannot create an immune memory forever. This applies to the diphtheria, tetanus, and pertussis vaccines.

When you get a "booster" after you had a first vaccination, your body acts more quickly and strongly to fight infection than it would if you had not received the first shot.

Question 17: "Lockjaw" is another name for which disease?

(information adapted from *Your Child's Best Shot*, 3rd edition, page 41)

"Lockjaw" is a common name for tetanus – a disease caused by a toxin (poison) that enters your body. The toxin blocks the way your body controls nerves that link to the spinal cord. As a result, you would feel intense and painful muscle strain throughout the body. Tetanus is called "lockjaw" because the jaws may become very tight and closed.

Question 18: True or false? No one ever dies from diphtheria anymore.

(information adapted from *Your Child's Best Shot*, 3rd edition, pages 30 and 32)

False! Diphtheria is a serious disease. About 1 out of 10 people who get the disease will die in spite of treatment.

Since 1983, fewer than 5 cases per year and no deaths have occurred in Canada. Diphtheria has become a very rare disease in all countries where children are immunized. Today, almost all cases of diphtheria in Canada and the United States occur in adults who have been either partially immunized or not immunized at all.

Question 19: True or false? Measles is highly contagious.

(information adapted from *Your Child's Best Shot*, 3rd edition, page 159)

True! Measles spreads very easily from person to person. The type of illness caused by the virus makes it almost certain that the virus will spread. Most children have a runny nose, cough, and fever for 2 to 4 days before the rash appears. During this time, the nose and throat contain large amounts of the virus. This means that children are contagious before anyone even knows they have measles. Children with measles may infect others for 8 days (4 days before the rash appears and 4 days after).

How does the measles virus get spread?

Direct contact	Airborne
<ul style="list-style-type: none"> • A person with the measles virus may cough or sneeze, spreading droplets that contain the virus. These droplets may land in the nose or throat of people they are in contact with. • Measles virus is able to survive in small droplets in the air for at least several hours. It can also survive on someone's hands or on objects. 	<ul style="list-style-type: none"> • When someone with the measles virus coughs or sneezes, the droplets that contain the virus move through the air (become airborne). • The droplets can also hang in the air and someone without measles may breathe them in. More than 90 percent of people who have not been immunized will catch measles from a child in their home who has it.

Question 20: True or false? You can be immunized against chickenpox.

(information adapted from *Your Child's Best Shot*, 3rd edition, page 207)

True! The chickenpox vaccine was approved for use in Canada in 1998. Since January 2006, parents in all provinces and territories, except the Yukon, have had access to this vaccine as part of childhood vaccination programs.

Correct answers

1. b
2. b
3. a
4. a
5. d
6. b
7. b
8. d
9. a
10. a
11. d
12. c
13. c
14. a
15. Yes
16. a
17. c
18. False
19. True
20. True