

Vaccination Education

This is an educational tool for anyone who chooses not to give their child vaccinations. During the next 15 minutes, you'll learn:

- Why vaccines are important
- How community immunity works
- The symptoms of diseases that are preventable with vaccinations
- Your responsibilities if you choose not to vaccinate your child

How Vaccines Work

What are Vaccines?

Vaccines are substances that teach your immune system what an invasive microbe looks like. This allows your body to protect itself from specific diseases. It is a natural process that uses your body's own natural defense system to keep you safe from serious illnesses.

This process is more natural than medicines, treatments, or vitamin supplements. It makes use of your body's strengths and protects you from diseases that could do serious harm.

Vaccine Myths

Myth: Vaccines are dangerous.

Reality: Vaccines are a safe and effective way to protect your health. Due to a fraudulent study written by a discredited doctor, some people mistakenly believe that vaccines cause autism. However, numerous studies have proven that vaccines do not cause autism.

Myth: Vaccines are unnecessary.

Reality: Some people mistakenly believe vaccines are unnecessary because diseases like polio are now uncommon. They forget that certain diseases are unfamiliar to our children because vaccines have made these diseases rare, but not completely gone. The World Health Organization estimates that more than one million children die each year from diseases that could have been prevented by vaccines. These diseases remain only a plane ride away from your child.

Vaccines have saved millions of lives, and their value to our health cannot be overstated.

Myth: Giving vaccines on a delayed or alternate schedule is safer.

Reality: Vaccine schedules are recommended only after reviewing many research studies. The schedules are created to provide the quickest and most effective way to protect your child from communicable diseases. Delayed or altered schedules for vaccine administration results in decreased protection from disease like measles and pertussis.

Vaccine Side Effects

Side effects of vaccines do not happen to everyone, and they are usually minor.

Mild problems may include:

- Headaches
- Stuffy nose, sore throat, cough
- Joint pain
- Abdominal pain, nausea, diarrhea
- Low grade fever
- Fatigue
- Reactions at injection area, such as bruising, tenderness, redness, itching, or a small lump
- On rare occasions, allergic reactions may occur

The risks of vaccines are much lower than the risks of the diseases they prevent.

Community Immunity

What is Community Immunity?

When the vast majority of a population is vaccinated, it protects the people who cannot be vaccinated. This includes:

- Babies
- Seniors
- Those with certain medical conditions

Because of the low vaccination rate, protective levels of community immunity in Utah are declining and thus risks are increasing. This means children who are not vaccinated have a high risk of contracting and spreading disease during an outbreak.

When enough people are vaccinated, contagious disease will not spread.

Preventable Diseases

Intro to Measles

Measles is a disease that causes fever and red spots on the skin.

This disease spreads to others through coughing and sneezing. Infected people can spread measles to others from four days before to four days after the rash first appears. It is so contagious that if someone has it, 90% of the unvaccinated people close to that person will also become infected.

Symptoms of Measles

A person with measles may experience mild symptoms such as:

- Cough
- Fever
- Nausea
- Runny nose
- Red or watery eyes
- White spots inside the mouth

Those infected with measles may also experience serious symptoms such as:

- A rash of red spots that may cover the entire body
- A fever of 104° F or more

Measles can cause serious health problems, especially in children less than five years old. At least one out of 1,000 people with measles will die, even with the best medical care.

Symptoms of Mumps

Mumps is a contagious disease defined by fever and swelling around the lower jaw.

Symptoms of mumps include:

- Fever
- Puffy cheeks
- Swollen jaw
- Swollen salivary glands
- Headaches
- Muscle aches
- Loss of appetite

Adults with mumps will occasionally experience serious complications, such as meningitis, deafness, and infertility.

The Spread of Mumps

People with mumps are likely contagious before the salivary glands begin to swell and up to 5 days after the swelling begins. Mumps is spread through:

- Coughing, sneezing, and talking
- Sharing items such as cups or eating utensils
- Touching objects or surfaces with unwashed hands

Symptoms of Rubella (German Measles)

Rubella is a contagious viral disease that spreads through coughing and sneezing. The symptoms are often mild, including:

- Rash
- A fever lower than 101°F
- Swollen glands
- Cold-like symptoms
- Aching joints

Though the symptoms are not severe, rubella carries an additional risk for pregnant women.

Rubella Can Cause Birth Defects

There is at least a 20% chance of a child having birth defects if a woman is infected early in pregnancy. These birth defects include:

- Deafness
- Heart problems
- Intellectual disability
- Possible death

Intro to Polio

Poliovirus is a serious disease that affects the nerves in the spine and can make a person permanently paralyzed (unable to move certain muscles).

Polio spreads through person-to-person contact. It can spread through the cough, sneeze, or feces of an infected person. People who don't have symptoms can still pass this virus to others and make them sick.

Symptoms of Polio

A person with polio may experience flu-like symptoms such as:

- Sore throat
- Fever
- Nausea
- Headache
- Stomach pain

A person with polio may also experience more serious symptoms that affect the brain and spinal cord. These symptoms include:

- Tingling or a feeling of pins and needles in the legs
- Meningitis, which is an infection that causes swelling around the brain and spinal cord
- Paralysis
- Weakness
- Possible death

Hepatitis A and B

Hepatitis A and B are closely related diseases that are caused by different viruses. They both cause swelling of the liver.

Hepatitis A is spread through objects, food, drink, or feces of an infected person.

Hepatitis B is spread through bodily fluids, so an infected mother can give her baby the virus during birth. Hepatitis B can lead to liver cancer.

Symptoms of Diphtheria

Symptoms of diphtheria may include:

- Weakness
- Sore throat
- Fever
- Swollen neck glands making it difficult to breathe

Coughing, sneezing, or touching surfaces with unwashed hands can spread diphtheria from person to person.

In the advanced stages, diphtheria can damage the heart, kidneys, and nervous system. Up to 3% of people who contract diphtheria will die of it, even with medical treatment.

Diphtheria is rare in the United States only because of widespread vaccination against the disease.

Intro to Pertussis (Whooping Cough)

Pertussis is a respiratory tract infection that develops in stages. The early stage usually starts with cold-like symptoms, including:

- Runny nose
- Low fever
- Occasional cough
- Apnea (a pause in breathing)

In many people, pertussis is recognized by a severe hacking cough followed by a high-pitched intake of breath that sounds like a “whoop.”

Initially, pertussis looks like the common cold, so it is often untreated until it is in the late stage. During this stage, coughing becomes severe and can last for more than 10 weeks, which is why it is also known as the “100 day cough.”

The Spread of Pertussis (Whooping Cough)

Pertussis is highly contagious. Those who are infected are the most contagious until about 2 weeks after the cough begins.

Pertussis primarily affects children too young to have completed all of their vaccinations and adults whose immunity has faded. It is generally less severe in teenagers and adults, but they can spread it to infants who will usually need to be hospitalized.

Intro to Tetanus (Lockjaw)

Tetanus is a serious disease that causes spasms of the muscles, especially the jaw.

Symptoms:

- Jaw cramping
- Fever and sweating
- Muscle stiffness

- Uncontrollable muscle spasms
- Seizures
- Weak bones
- Pneumonia
- Breathing difficulty
- Possible death

10–20% of tetanus cases are fatal.

Sources of Tetanus

Tetanus bacteria are part of our environment and can be found in dust and soil. The bacteria can enter the body through broken skin. For example, a person may contract tetanus from wounds that have been contaminated with dirt, feces, or saliva. People also get tetanus from burns or objects puncturing the skin.

Thanks to the tetanus vaccine, cases of tetanus are rare in the United States. However, the disease is still dangerous to those who aren't up to date on their vaccinations.

Symptoms of Varicella (Chickenpox)

Chickenpox is a common childhood disease and is rarely dangerous, but it can cause serious symptoms in infants and adults.

These symptoms include:

- A rash that spreads across the body and turns into itchy blisters
- High fever
- Loss of appetite
- Headaches
- Tiredness

Children usually miss 5–6 days of school or childcare because of chickenpox.

Chickenpox is very contagious, especially to those who have never had the disease or vaccine. The virus spreads through the air when an infected person coughs or sneezes. Touching an infected person's blisters can also spread chickenpox.

Immunocompromised children are at high risk for hospitalization from chickenpox. Before the

vaccine, this disease would hospitalize about 11,000 people and kill around 100 people each year in the U.S. alone.

Symptoms of Meningitis

Meningitis is an inflammation of the brain and spinal cord usually caused by a virus or bacteria. Viral meningitis is serious, but not usually as severe as bacterial meningitis, which spreads quickly and can be life threatening. Symptoms include:

- Sudden fever
- Headache
- Stiff neck
- Sensitivity to light
- Confusion
- Nausea
- Vomiting

Most outbreaks of meningitis occur in the college-aged population. Many infected with meningitis will suffer long-term consequences, including:

- Brain damage
- Hearing loss
- Amputation
- Organ damage

Parental Responsibilities

Your Responsibilities

If you choose not to have your child vaccinated, you will have to take extra precautions in the event of a disease outbreak in your area.

During an outbreak, your child:

- May not go to school
- Should not leave home for any reason
- Should not have contact with others
- Will be expected to complete missed schoolwork

You must take these precautions in order to protect your child and to keep an outbreak from growing. This is especially important when a population does not benefit from community immunity.

Stay at Home

The amount of time a child will have to stay home depends on the disease.

- Measles: 21 days home from school
- Mumps: 26 days home from school
- Rubella (German measles): 21 days home from school
- Pertussis (whooping cough): 21 days home from school or after 5 days of antibiotics
- Diphtheria: 14 days of antibiotic therapy

Make a Plan

If you choose not to have your children vaccinated, you will need to make a plan so you will be prepared for an outbreak. The plan should include:

- Childcare while the children cannot attend school
- A tutor to help your children with schoolwork
- Explaining to your children that they cannot attend school activities or extracurricular events
- Financial backup in case you become sick and are unable to attend work

Vaccinations Are Simple

- You can vaccinate your child at your local health department.
- You can find your local health department and vaccination clinic at www.immunize-utah.org.
- Most pediatric clinics will vaccinate your child without a doctor's appointment.
- If you are concerned about the cost of the vaccinations, the health department can work with you to find a solution.

Congratulations! You have completed the Vaccination Education presentation.