

## **CHICKENPOX**

is a very contagious infection caused by the varicella-zoster virus. It mainly affects kids, but adults can get it, too. The telltale sign of chickenpox is a super-itchy skin rash with red blisters. Over the course of several days, the blisters pop and start to leak. Then they crust and scab over before finally healing.

### **SYMPTOMS**

Appear within 10 to 21 days after you've been in contact with someone who has the virus. Most people recover in about 2 weeks.

Chickenpox is generally mild, especially in children. But in severe cases, the blisters can spread to your nose, mouth, eyes, and even genitals.

### **MODE OF TRANSMISSION**

Can get the virus by breathing in particles that come from chickenpox blisters or by touching something on which the particles landed.

Chickenpox is most contagious from 1 to 2 days before the rash appears until all the blisters are dried and crusted.

The best way to prevent the spread of the virus is to get the vermicelli vaccine. Children who've never had chickenpox should get two doses of the vaccine -- the first at 12 to 15 months of age, and the second between ages 4 and 6. People over age 13 who've never been vaccinated should get two doses of the vaccine at least 28 days apart.

### **INCUBATION PERIOD**

14 – 16 Days

### **PREVENTION**

The best way to prevent chickenpox is to get the chickenpox vaccine. Everyone – including children, adolescents, and adults – should get two doses of chickenpox vaccine if they have never had chickenpox or were never vaccinated. Chickenpox vaccine is very safe and effective at preventing the disease

### **TREATMENT**

The treatment only symptomatic

## **DIPHTHERIA**

Is a serious bacterial infection that affects the mucous membranes of the throat and nose (upper respiratory tract). Although it spreads easily from one person to another.

### **Causative Agents;**

*Corynebacterium diphtheriae*

### **Mode of Transmission**

Person to person mainly by droplet infection

### **Prevention**

Diphtheria is preventable with the use of antibiotics and vaccines.

The vaccine for diphtheria is called DTaP. It's usually given in a single shot along with vaccines for pertussis and tetanus. The DTaP vaccine is administered in a series of five shots. It's given to children at the following ages Trusted Source:

- 2 months
- 4 months
- 6 months
- 15 to 18 months
- 4 to 6 years

In rare cases, a child might have an allergic reaction to the vaccine. This can result in seizures or hives, which will later go away.

Vaccines only last for 10 years, so your child will need to be vaccinated again around age 12. For adults, it's recommended that you get a combined diphtheria-tetanus-pertussis booster shot once. Every 10 years afterward, you'll receive the tetanus-diphtheria (Td) vaccine. Taking these steps can help prevent you or your child from getting diphtheria in the future.

### **Treatment**

There are two treatment strategies that are used for patients diagnosed with diphtheria. Both are most effective when utilized early in the disease process. The first treatment is antibiotics. The CDC recommends erythromycin as the first-line therapy for patients older than 6 months of age. For patients who are younger or who cannot take erythromycin, the CDC recommends intramuscular penicillin. Patients usually become noninfectious after about 48 hours of antibiotic treatment, and medical professionals should isolate patients until that time to prevent spread of the disease.

The second treatment is administration of diphtheria antitoxin. However, this antitoxin is only available from the CDC. Diphtheria antitoxin reduces the progression of the disease by binding diphtheria toxin that has not yet attached to the body's cells. The antitoxin comes from horses, so recipients should not be treated if they are allergic. Your doctor will make the

decision if you need only antibiotics or antibiotics plus antitoxin based on your symptoms, immunization status, and disease progression.

## MEASLES

Is a highly contagious viral disease. It remains an important cause of death among young children globally, despite the availability of a safe and effective

Causative agents: Rubeola virus

### **Mode of Transmission**

Person to person mainly by droplet infection

### **Prevention**

Vaccination

Getting vaccinated is the best way to prevent measles. Two doses of the measles vaccine are 97 percent Trusted Source effective at preventing measles infection.

There are two vaccines available — the MMR vaccine and the MMRV vaccine. The MMR vaccine is a three-in-one vaccination that can protect you from measles, mumps, and rubella. The MMRV vaccine protects against the same infections as the MMR vaccine and also includes protection against chickenpox.

Children can receive their first vaccination at 12 months, or sooner if traveling internationally, and their second dose between the ages of 4 and 6. Adults who have never received an immunization can request the vaccine from their doctor.

Some groups shouldn't receive a vaccination against measles. These groups include:

- people who've had a previous life-threatening reaction to the measles vaccine or its components
- pregnant women
- immunocompromised individuals, which can include people with HIV or AIDS, people undergoing cancer treatment, or people on medications that suppress the immune system

Side effects to vaccination are typically mild and disappear in a few days. They can include things like fever and mild rash. In rare cases, the vaccine has been linked to low platelet count or seizures. Most children and adults who receive a measles vaccine don't experience side effects.

Some believe that the measles vaccine can cause autism in children. As a result, an intense amount of study has been devoted to this topic over many years. This research has found that there is no link Trusted Source between vaccines and autism.

Vaccination isn't just important for protecting you and your family. It's also important for protecting people who can't be vaccinated. When more people are vaccinated against a disease, it's less likely to circulate within the population. This is called herd immunity.

To achieve herd immunity against measles, approximately 96 percent Trusted Source of the population must be vaccinated.

### **Treatment for measles**

There's no specific treatment for measles. Unlike bacterial infections, viral infections aren't sensitive to antibiotics. The virus and symptoms typically disappear in about two or three weeks.

There are some interventions available for people who may have been exposed to the virus. These can help prevent an infection or lessen its severity. They include:

A measles vaccine, given within 72 hours of exposure

A dose of immune proteins called immunoglobulin, taken within six days of exposure

Your doctor may recommend the following to help you recover:

Acetaminophen (Tylenol) Or Ibuprofen (Advil) to reduce fever

Rest to help boost your immune system

Plenty of fluids

A humidifier to ease a cough and sore throat

Vitamin A supplements

## **Respiratory Tract Infection (RTI)**

Is any of a number of infectious diseases involving the respiratory tract. An infection of this type is normally further classified as an upper respiratory tract infection. Or a lower respiratory tract infection. Lower respiratory infections, such as pneumonia, tend to be far more serious conditions than upper respiratory infections, such as the common cold.

### **Upper respiratory tract infection**

The upper respiratory tract is generally considered to be the airway above the glottis or vocal cords, sometimes it is taken as the tract above the cricoids cartilage. This part of the tract includes the nose, sinuses, pharynx, and larynx.

Typical infections of the upper respiratory tract include tonsillitis, pharyngitis, laryngitis, sinusitis, otitis media, certain types of influenza, and the common cold. Symptoms of URIs can include cough, sore throat, runny nose, nasal congestion, headache, low grade fever, facial pressure and sneezing.

### **Lower respiratory tract infection**

The lower respiratory tract consists of the trachea (wind pipe), bronchial tubes, the bronchioles, and the lungs.

Lower respiratory tract infections are generally more serious than upper respiratory infections. LRIs are the leading cause of death among all infectious diseases. The two most common LRIs are bronchitis and pneumonia. Influenza affects both the upper and lower respiratory tracts, but more dangerous strains such as the highly pernicious H5N1 tend to bind to receptors deep in the lungs.

## **Tuberculosis (TB)**

Is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs. But **TB** bacteria **can** attack any part of the body such as the kidney, spine, and brain. If not treated properly, **TB** disease **can** be fatal.

## **Tuberculosis Types**

### **Active TB**

Active TB, sometimes called TB disease, causes symptoms and is contagious. The symptoms of active TB vary depending on whether it's pulmonary or extrapulmonary.

But general symptoms of active TB include:

- unexplained weight loss
- loss of appetite
- fever
- chills
- fatigue
- night sweats

Active TB can be life-threatening if not properly treated.

### **Latent TB**

If you have latent TB infection, you have TB bacteria in your body, but it's inactive. This means you don't experience any symptoms. You also aren't contagious. Still, you'll have a positive result from TB blood and skin tests.

Latent TB can turn into active TB in 5 to 10 percent of people. This risk is higher for those with a weakened immune system due to medication or an underlying condition.

## **Tuberculosis Signs and Symptoms**

There are usually signs include:

- A cough that lasts more than 3 weeks
- Chest pain
- Coughing up blood
- Feeling tired all the time
- Night sweats
- Chills
- Fever
- Loss of appetite
- Weight loss

**The most common medications used to treat tuberculosis include:**

- Isoniazid.
- Rifampin (Rifadin, Rimactane)
- Ethambutol (Myambutol)
- Pyrazinamide.

## **Whooping cough (pertussis)**

Is a highly contagious respiratory tract infection. In many people, it's marked by a severe hacking **cough** followed by a high-pitched intake of breath that sounds like "**whoop**." Before the vaccine was developed, **whooping cough** was considered a childhood disease

### **Causative agents**

Bordetella pertussis and B.parapertussis

### **Mode of Transmission**

Droplet of infection and by direct contact. The bacilli spread in to the air while sneezing, coughing or talking of the patient.

**Incubation Period** 7 to 14 days

### **Prevention**

Vaccination is the key to prevention.:

- 2 months
- 4 months
- 6 months

Booster shots are needed for children at:

- 15 to 18 months
- 4 to 6 years and again at 11 years old

Children aren't the only ones vulnerable to whooping cough. Talk to your doctor about getting vaccinated if you:

- work with, visit, or care for infants and children
- are over the age of 65
- work in the healthcare industry

### **Treatment**

Intravenous (IV) fluids for dehydration if symptoms prevent them from drinking enough fluids.

Since whooping cough is a bacterial infection, antibiotics are the primary course of treatment. Antibiotics are most effective in the early stages of whooping cough. They can also be used in the late stages of the infection to prevent it from spreading to others.

While antibiotics can help treat the infection, they don't prevent or treat the cough itself.