

What is Coccidioidomycosis?

Coccidioidomycosis (kok-sid-e-oy-doh-my-KOH-sis) is an infection caused by the inhalation of spores of a fungus called *Coccidioides Immitis*. The spores develop in arid areas that include the central valley of California, desert areas of Arizona, New Mexico, Texas, Utah, Nevada, northern Mexico, and some areas of Central and South America. Half of the California cases come from Kern, Kings, Tulare, and Fresno counties. Cases have also been reported from north of Sacramento, Riverside, San Bernardino and Imperial counties.

An estimated 50,000 to 100,000 persons develop symptoms of Coccidioidomycosis in the United States. There are estimates that there are as many as 35,000 new infections a year in California alone. Better known as Valley Fever, the rate of infections have been on the rise for reasons attributed to:

- Increasing numbers of people susceptible to the infection moving into endemic areas.
- A rise in the number of people with compromised immune systems living in endemic areas.

The highest rates of infections tend to occur in late summer and early fall when soils are driest and more likely to be swept up by wind.

How are the Spores Transmitted?

In soil, the fungus forms spores that are approximately 2 x 5 microns in size. These spores are carried by dust in the air. People, and some animals, can become infected by breathing the dust containing the spores.

Can the Disease be Transmitted from Person to Person?

No, only the spores are infectious.

What are the Symptoms?

The initial, or acute, form of coccidioidomycosis is often mild, with few or no symptoms. Signs and symptoms occur one to three weeks after exposure. They tend to be similar to flu symptoms. Symptoms can range from minor to severe, including:

- Fever
- Cough
- Tiredness
- Shortness of breath
- Headache
- Chills
- Night sweats
- Joint aches and muscle soreness
- Red, spotty rash, mainly on lower legs but sometimes on the chest, arms and back

If you don't become ill or have symptoms from valley fever, you may only find out you've been infected later. You may find out when you have a positive skin or blood test or when small areas of residual infection in the lungs (nodules) show up on a routine chest X-ray. The nodules typically don't cause problems, but they can look like cancer on X-rays.

If you develop symptoms, especially severe ones, the course of the disease is highly variable. It can take months to fully recover. Fatigue and joint aches can last even longer. The disease's severity depends on several factors, including your overall health and the number of fungus spores you inhale.

Who is Likely to get the Disseminated Form?

Age, race, ethnicity, pregnancy, and condition of immune system are factors associated with greater risk. At higher risk are:

- Asians (especially Filipinos)
- African-Americans
- Children under five
- Elderly individuals
- Pregnant women particularly in their third trimester
- Anyone with an immune system compromised by drugs or disease (cancer treatments, transplant patients, AIDS patients)

Can I Get it More than Once?

No. Exposure produces immunity. However, it may be possible that a compromised immune system can allow an old infection to flare up or become disseminated.

Occupational Exposures

Any occupation that causes exposure to dust can expose someone to Coccidioidomycosis. Occupations that present the greatest exposure include:

- Agriculture
- Archeology
- Construction
- Military

Someone born and raised outside the area where the fungus exists is unlikely to have immunity. Military recruits and migrant workers moving into endemic areas are examples of higher risk candidates.

Control Measures

- Wear a mask.
- Avoid very dusty areas, such as construction sites.

- Stay inside during dust storms.
- Wet the soil before digging in it or avoid soil if you're at higher risk of infection.
- Keep doors and windows tightly closed.
- Clean skin injuries with soap and water.

Availability of Vaccine?

There is no vaccine. Research is ongoing to develop human vaccines with acceptable side effects.

The guidelines provided in this bulletin are only intended to provide an overview of some of the more important steps that can be taken by management to establish a safe workplace. The guidelines are not considered exhaustive of all measures and controls that can be implemented by management to address all potential loss or injury producing causes. Ultimately it is the responsibility of management to take the necessary steps to provide for employee and customer safety. It is not intended as an offer to write insurance for such conditions or exposures. The liability of Republic Indemnity Company of America and its affiliated insurers is limited to the terms, limits and conditions of the insurance policies underwritten by any of them. © 2022 Republic Indemnity of America, 4500 Park Granada, Suite 300, Calabasas, CA 91302.