



## Coccidioidomycosis

### What is coccidioidomycosis (Valley Fever)?

Did you know that the disease coccidioidomycosis is endemic (native and common) in the southwestern United States, including southern California? Coccidioidomycosis is a lung disease that results from infection with *Coccidioides*, a fungus which lives in dirt. It is also known as Valley Fever, cocci, California fever, desert rheumatism, and San Joaquin Valley Fever. Symptoms include fever, cough, headache, rash, muscle aches, or joint pain. In severe cases, patients develop pneumonia or meningitis, sometimes resulting in death.

### How common is Valley Fever?

The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 20,000 reported cases in 2011, and the CDC estimates that an additional 150,000 cases go undiagnosed each year. About 25% of all cases occur in California. In 2011, there were 75 cases of Valley Fever in San Bernardino County, an incidence rate of 3.4 cases per 100,000 people.

### Who is at risk?

Anyone can get Valley Fever if living, working or traveling in endemic areas. It is most common among older adults, particularly those ages 60 and older, but more young people are getting the disease. A person is at higher risk of contracting this disease if they have frequent or high levels of exposure to dusty environments where *Coccidioides* is common. People who work outside are at higher risk of developing Valley Fever, including construction workers, wildland firefighters, archaeologists, military personnel, and workers in mining, gas, and oil extraction jobs. Groups that are at higher risk to develop more severe forms of Valley Fever include Asians, African Americans, women in the third trimester of pregnancy, and persons with weakened immune systems.

### How do people get infected with this illness?

You get infected with this disease by inhaling fungal spores in endemic areas. Fungal spores become airborne when dust is stirred up. People exposed to the dust breathe in the microscopic spores without even realizing it. You cannot get Valley Fever from person-to-person contact.

### What can be done to prevent this disease?

It is difficult to prevent Valley Fever. There is no vaccine currently available. People at risk for developing this illness should avoid being in dusty areas where Valley Fever is common. If someone is in an endemic area for their job or even recreational activity, they should avoid exposure to dust if at all possible. Dust suppression methods include wetting the soil during work or covering bare soil. The California Department of Public Health recommends stopping outside activity during conditions where the dust cannot be controlled well. Appropriate use of respiratory protection may also be needed in some circumstances.

## How is the infection diagnosed?

Valley Fever can be diagnosed through a variety of tests, including chest X-rays, CT scans, urine or blood tests, and tissue biopsies. Your medical professional will choose the appropriate test(s) based on your medical history and symptoms.

## How can Valley Fever be treated?

Sometimes treatment for Valley Fever is not necessary, as symptoms can resolve on their own. Many healthcare providers still prefer to prescribe antifungal medications, such as fluconazole, to prevent a more severe infection from developing. It is especially important for people at risk for severe disease, such as people infected with HIV or those with weakened immune systems, to receive treatment as quickly as possible. It is extremely important for people with severe infections to be treated with antifungal medications because advanced Valley Fever can be fatal if not treated. Sometimes in very severe cases of Valley Fever, people will need respiratory supportive therapies or hospitalization.

## What are the short-term consequences?

Nearly 75% of people who get Valley Fever miss work or school due to their illness, for an average of two weeks. More than 40% of people who get Valley Fever need to be hospitalized. The average cost of a hospital stay for Valley Fever is almost \$50,000.

## Are there long-term consequences?

In very severe cases of Valley Fever, the nervous system can be affected and there may be long-term damage. Sometimes people with weakened immune systems or other risk factors may develop chronic pneumonia or other severe symptoms. These long-term complications are rare.

## Have there been outbreaks of Valley Fever?

Outbreaks of Valley Fever do occasionally

occur, particularly after events that disturb large amounts of soil. Past outbreaks have occurred among military trainees, archeological workers, and in people exposed to earthquakes and dust storms. There have been several outbreaks of Valley Fever in California in recent years.

## What else should I know about Valley Fever?

More people are being exposed to *Coccidioides* due to increased travel and relocation to endemic areas. Changes in temperature and rainfall can affect the growth and distribution of the fungus. The number of Valley Fever cases reported nationally has more than quadrupled in the past decade. Between 1990 and 2008, there were 3,089 Valley Fever fatalities nationwide, and 47% of those deaths occurred in California.

### **For more information, please contact:**

County of San Bernardino  
Department of Public Health  
Communicable Disease Section  
[dph.sbcounty.gov/programs/cds-2-2](http://dph.sbcounty.gov/programs/cds-2-2)  
(800) 722-4794

### **To report a possible foodborne illness, contact:**

County of San Bernardino  
Department of Public Health  
Division of Environmental Health Services  
[ehs.sbcounty.gov](http://ehs.sbcounty.gov)  
(800) 442-2283

*This information was taken from the Centers for Disease Control and Prevention's website [www.cdc.gov](http://www.cdc.gov).*