

## VALLEY FEVER (*Coccidioidomycosis*)

1. **Clinical Features:** Symptomatic infection (40% of cases) usually presents as flu-like illness with fever, cough, headaches, rash, and myalgias. Some patients fail to recover and develop chronic pulmonary infection or widespread disseminated infection (affecting meninges, soft tissues, joints, and bone). Severe pulmonary disease may develop in HIV-infected persons.
2. **Etiological Agent:** *Coccidioides immitis*.
3. **Reservoir:** Soil in semiarid areas (primarily in the Lower Sonoran life zone). Endemic in the south-western United States, parts of Mexico and South America.
4. **Incidence:** Incidence was 15 cases per 100,000 population in Arizona in 1995. Of persons living in areas with endemic disease, 10-50% are skin-test positive.
5. **Sequelae:** Meningitis may lead to permanent neurologic damage. Mortality is high in HIV-infected persons with diffuse lung disease.
6. **Transmission:** Inhalation of airborne arthroconidia after disturbance of contaminated soil by humans or natural disasters (e.g., dust storms and earthquakes).
7. **Risk Groups:** Persons in areas with endemic disease who have occupations exposing them to dust (e.g., construction or agricultural workers, and archeologists). High risk groups are African-Americans and Asians, pregnant women during the third trimester, and immunocompromised persons.
8. **Surveillance:** National surveillance through NETSS started in 1995. Reportable in states with endemic disease: California, New Mexico, Arizona.
9. **Challenges:** Developing an effective vaccine (vaccination offers the best prevention measure because infection provides life-long immunity). Identifying factors associated with increased risk for dissemination in select racial groups to target prevention efforts.

(Source: United States Centers for Disease Control and Prevention)

## **QUESTIONS AND ANSWERS ABOUT VALLEY FEVER**

### **What is Valley Fever and how common is it?**

Valley Fever can be a serious and sometimes deadly fungus infection. The Valley Fever fungus lives in soil and is spread, via spores, through the air. Spores are hardy forms of the fungus that can live for a long time in harsh environmental conditions such as heat, cold, and drought. Valley Fever usually affects the lungs. When it affects other parts of the body, it is called disseminated Valley Fever. An estimated 50,000 to 100,000 persons develop symptoms of Valley Fever each year in the United States (U.S.), with an estimated 35,000 new infections per year in California alone.

### **Where is Valley Fever found?**

It is found in limited areas of the southwestern U.S., Mexico, and parts of Central and South America that meet certain soil and climatic conditions. In California, it is found in many areas of the great Central Valley.

### **How do people get Valley Fever?**

Valley Fever is spread through the air. The fungus spores get into the air when construction, natural disasters, or wind disturbs soil contaminated with the Valley Fever fungus. People breathe in the spores and then can get Valley Fever.

### **What are the signs and symptoms of Valley Fever?**

About 60 percent of infected persons have no symptoms from infection by this fungus. The rest develop flu-like symptoms that can last a month. A small percentage of infected persons (<1%) develop disease that spreads outside the lungs to the brain, bone, and skin. Without proper treatment, Valley Fever can lead to severe pneumonia, meningitis, and Death.

### **How is Valley Fever diagnosed?**

Valley Fever is diagnosed by an antibody blood test or culture.

### **Who is at risk for Valley Fever?**

At highest risk for Valley Fever are farmers, construction workers, military personnel, archaeologists, and others who engage in activities that disturb the soil in the Central Valley where Valley Fever is common. People with weak immune systems, the elderly, African-Americans, Asians, and women in the third trimester of pregnancy are at increased risk for disseminated disease and can become seriously ill when infected.

Anyone can get Valley Fever, but people who engage in activities that disturb the soil contaminated by the fungus are at increased risk. The disease is not spread from person to person. Recent natural disasters have also triggered a rise in Valley Fever cases. The Central Valley of Southern California had a four-year epidemic of Valley Fever in the early 1990s after a severe drought. Cases of Valley Fever also increased in persons exposed to billowing dust released by the January 1994 earthquake in Northridge, California.

### **What is the treatment for Valley Fever?**

Valley Fever is treatable with a variety of oral and injectable anti-fungal agents.

### **How can Valley Fever be prevented?**

There is no vaccine against Valley Fever. Where it is safe and does not compromise fire or other emergency operations, persons at risk for Valley Fever should avoid exposure to dust and dry soil in areas where Valley Fever is common. All persons potentially exposed should be alert to the signs and symptoms of Valley Fever and seek immediate medical diagnosis and treatment if signs or symptoms appear.

(Source: California Department of Health Services)