

## Coccidioidomycosis (Valley Fever)

Coccidioidomycosis is an infection of the lungs caused by the fungal species *Coccidioides*. *Coccidioides* grow in soil, particularly in arid areas of North, Central, and South America.

### Transmission

In the United States, *Coccidioides* is most commonly found in soil in the southern and central parts of California, Arizona, and Washington, as well as portions of New Mexico, Texas, Nevada, and Utah. It can also be found in parts of Mexico and Central and South America. The disease affects all ages; however, men and the elderly are most frequently affected. Coccidioidomycosis is spread through:

- **Environment to person** when inhaling infective fungal spores found in the soil, usually as dust.

#### Risk Factors:

People who engage in activities that expose them to dust, such as agricultural work and construction, or in dust storms in places where the fungus is found in the soil are at a higher risk for getting the disease.

It does not spread between people and/or animals or from person to person. Infection of coccidioidomycosis is known to provide lifelong immunity. However, relapse of symptoms has been reported in some people after their initial recovery.

### Symptoms

Symptoms may include:

- **Fatigue**
- **Fever**
- **Cough**
- **Shortness of Breath**
- **Headache**
- **Muscle aches**
- **Rash**
- **Chills**
- **Chest pain**

In rare cases, long-term damage to the nervous system can occur. Most people with coccidioidomycosis do not experience symptoms, but certain groups of people are at risk for more severe disease. These high-risk groups include:

- People of Asian descent (particularly Filipino)
- African Americans
- Children under one year of age
- Pregnant women in their third trimester
- Those with weakened immune systems (such as people with HIV/AIDS, diabetes, chronic pulmonary disease, or people undergoing cancer treatment)
- Those with diabetes

## Diagnosis

Coccidiomycosis is diagnosed based on medical history, symptoms, and physical examination. Imaging tests may be performed to look for signs of pneumonia, and biopsy samples may be taken for examination under a microscope. Laboratory testing for the fungus is also available.

## Treatment

**In most cases, treatment is not necessary, and symptoms will go away on their own.** Antifungal medication may be prescribed in some cases to prevent more serious diseases from developing, such as for people in high-risk groups. A health care provider can decide if treatment with antifungal medications is necessary. Rarely, supportive care in a hospital setting may be needed for very severe cases.

## Prevention

Those who live in areas where *Coccidioides* is common in the environment can try to avoid spending time in dusty places as much as possible. The spread of Coccidioidomycosis can be prevented by controlling dust in areas with endemic infection, such as construction sites, archaeological project sites, or other locations where activities cause excessive soil disturbance. Controlling dust can be achieved by taking measures such as:

- **Wearing a facemask** (such as N95) when exposed to a dusty environment.
- **Planting grass**
- **Paving airfields**

Protective anti-fungal medication may be prescribed to certain at-risk individuals if deemed necessary by their health care provider.

## Exclusion Guidance

**People should not be excluded from child care, school, work, or other activities unless the [general exclusions apply](#).**

For additional information about coccidioidomycosis, contact the North Dakota Department of Health and Human Services', Public Health Division, at 800.472.2180.

**This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health and Human Services.**

### Resources:

1. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 32<sup>nd</sup> ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases] [pages 277-280].
2. Centers for Disease Control and Prevention. (2020, December 29). CDC - coccidioidomycosis. Centers for Disease Control and Prevention. Retrieved May 09, 2023, from [https://www.cdc.gov/valley-fever/?CDC\\_AAref\\_Val=https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html](https://www.cdc.gov/valley-fever/?CDC_AAref_Val=https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html)