

Valley Fever and Persons with Diabetes, Weakened Immune Systems, and Adults 60 Years and Older

What is Valley Fever?

Valley Fever (coccidioidomycosis or “cocci”) is an infectious disease caused by a fungus called *Coccidioides* which lives in the soil and dirt in certain areas. The fungus usually infects the lungs causing flu-like symptoms. Most of the time symptoms get better on their own.

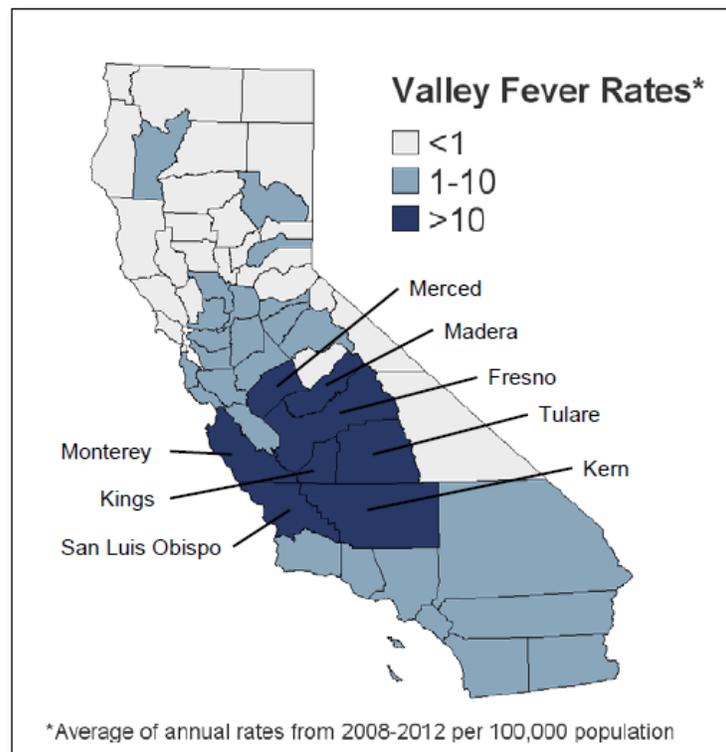
Persons with diabetes, weakened immune systems, or those who are 60 years and older are at risk for severe Valley Fever. When Valley Fever is severe, patients may need to be hospitalized and in rare cases, the infection can spread beyond the lungs to other organs (this is called disseminated Valley Fever).

When and where do people get Valley Fever?

Valley Fever infection can occur year-round and tends to occur in areas with dry dirt and desert-like weather conditions that allow the fungus to grow.

Cases of Valley Fever have been reported from most counties in California. Over 75% of cases have been in people who live in the San Joaquin (Central) Valley. In California, the number of reported Valley Fever cases has increased greatly since 2000, with more than 4,000 cases reported in 2012.

Outside of California, Valley Fever is found in some areas of Arizona, Nevada, New Mexico, Utah, and Texas, and parts of Mexico and Central and South America.



How do people get Valley Fever?

People can get Valley Fever by breathing in dust containing a form of the *Coccidioides* fungus called spores which are too small to be seen. Anyone who lives, works, or visits in an area with Valley Fever can be infected. Animals, including pets, can also be infected. Valley Fever is not contagious and cannot be spread from one person or animal to another.

How are persons with diabetes affected by Valley Fever?

Persons with diabetes who breathe in the Valley Fever fungus are not more likely to be infected with Valley Fever than healthy persons. However, if infected, they appear to be at greater risk of getting severe lung infections and being hospitalized.

How are persons with weakened immune systems affected by Valley Fever?

Any person with a weakened immune system is at risk for serious illness if they get sick with Valley Fever. A person's immune system may be weakened because of:

- Older age (≥ 60 years old)
- Cancer
- Human immunodeficiency virus (HIV) infection
- Organ transplant
- Certain treatments, including but not limited to chemotherapy, steroids, and some medications for joint diseases

For persons with weakened immune systems, there is also a risk that the fungus will spread outside of the lungs and infect the brain, joints, bone, skin, or other organs. This is called disseminated disease. This form of the disease is rare but can be very serious and sometimes fatal.

If you are unsure if you have a weakened immune system or are taking medication that may weaken your immune system, talk to your health care provider.

How are adults 60 years and older affected by Valley Fever?

Persons 60 years or older have a greater risk of developing severe Valley Fever compared with those who are younger. Their immune system tends to get weaker, making them less able to fight infections. In addition, older adults often have more chronic health issues such as diabetes, heart disease, or other conditions that weaken their immune systems. This puts adults 60 years and older at more risk of getting severe Valley Fever and being hospitalized if they get infected.

What can I do to protect myself?

1. Know your risk

Know if you live, work, or are traveling in an area where Valley Fever is common. You can look at the map above or contact your local health department.

In areas where Valley Fever is common, people who work in jobs or participate in

recreational activities where dirt and dust are disturbed may be at more risk of getting infected than others. Valley Fever has been reported among persons doing construction, farming, military work, and archaeology.

There are several other groups that are also at risk for severe Valley Fever.

These include:

- Pregnant women, especially in the later stages of pregnancy
- African Americans, Filipinos, and Hispanics

If you have diabetes, have a weakened immune system, or are 60 years and older and you are part of one of the above groups, you may be particularly vulnerable to develop severe Valley Fever.

2. Reduce your risk

The best way to reduce your risk of getting Valley Fever is to avoid breathing in dirt or dust in areas where Valley Fever is common. Valley Fever can be difficult to prevent but some common sense recommendations that may help are below:

When it is windy outside and the air is dusty, especially during dust storms:

- Stay inside and keep windows and doors closed.
- While driving, keep car windows shut and use “recirculating” air conditioning if available.
- If you must be outdoors in dusty air, consider wearing an N95 mask or respirator.
 - N95 masks are available at drug and hardware stores
 - To be effective, N95 masks must be fitted properly. Instructions can be found at several online sites, including the [U.S. Centers for Disease Control and Prevention instruction video for using disposable respirators](http://www.cdc.gov/media/releases/2014/s0916-n95.html): (http://www.youtube.com/watch?v=0d_RaKdqeck&feature=player_embedded).

When working or playing in areas with open dirt:

- Wet down soil before disturbing it to reduce dust.
- Consider wearing an N95 mask or respirator.

Other things you can do:

- Cover open dirt areas around your home with grass, plants, or other ground cover.
- After work or play, change out of clothes if covered with dirt.
 - Take care not to shake out clothing and breathe in the dust before washing. Warn the person washing these clothes if you are not washing them yourself.
- Carry a couple of N95 masks or respirators in the car in case they are needed.

3. Know the symptoms

About 60% of persons infected with Valley Fever have no symptoms. The people who get sick usually develop a flu-like illness 1-3 weeks after breathing in the fungus. These symptoms can last a month or more. People who get sick can experience some of the following symptoms:

- Fever
- Tiredness
- Unexplained weight
- Muscle or joint aches
- Cough
- Chest pain
- Headaches
- Night
- Rash

People who are at a higher risk for disseminated disease should also be familiar with the unusual symptoms that can occur if the brain, bone, joints, or skin are infected.

Disseminated disease symptoms:

- Unexplained fevers
- Extreme tiredness
- Unexplained weight loss
- Painful, swollen joint
- Bone pain
- Back pain
- Headaches
- Swollen lymph nodes
- Bumps/sores on the skin

4. Get diagnosed

If you think you might have Valley Fever, visit your healthcare provider. Since Valley Fever symptoms are similar to those of other illnesses, your provider may order a blood test or other tests, such as a chest x-ray, to help diagnose Valley Fever.

What happens if I am diagnosed with Valley Fever?

Treatment is usually not necessary for mild infections which often get better on their own. However, treatment may be recommended more often for persons at high risk for severe disease.

Some persons with Valley Fever may need to be on lifelong treatment to prevent the illness from happening again. All persons with symptoms should see a healthcare provider who can determine if treatment is needed.

It is very important to follow instructions given by your healthcare provider about treatment, follow-up appointments, and testing if you have Valley Fever.

What is being done about Valley Fever in California?

State and local health departments:

- Monitor the numbers of persons who get Valley Fever in California
- Raise awareness of Valley Fever among healthcare providers and the public

Where can I get more information about Valley Fever?

For more information, contact your county health department or visit:

[CDPH Valley Fever webpage](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Coccidioidomycosis.aspx)

(<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Coccidioidomycosis.aspx>)

[U.S. Centers for Disease Control and Prevention Valley Fever webpage](http://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html)

(<http://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html>)