Diagnosis

Usually a diagnosis is made on the basis of one or more of the following tests: recovery of the cocci organism from body fluid or tissue specimens, or by a blood test that reflects the body's reaction to the presence of the fungus.

Chest X-rays reveal some of the abnormalities associated with cocci, but it may be mistaken for bacterial pneumonia, tuberculosis or other lung disease.

Treatment

Patients suffering from the flu-like symptoms of cocci in its primary form will probably be sent to bed by the doctor.

For the disseminated form of the disease a number of drugs are now available.

Occasionally surgery is recommended to remove a diseased portion of the lung, bone or skin.

Prevention

Avoid participating in activities associated with exposure to dust and airborne dirt of uncultivated soil.

For some occupations, such as construction work, it is recommended that individuals wear a close fitting mask if work is being done in an area where cocci is known to exist.

Researchers are working on the development of a vaccine for cocci.

SAN JOAQUIN COUNTY
Public Health Services
Healthy Future

1601 E. Hazelton Ave
Stockton, CA 95205

For more information please call

SJC PHS Communicable Disease Program at:

(209) 468-3822

Information can also be obtained by calling your local American Lung Association at

1-800-LUNG-USA

1-800-586-4872

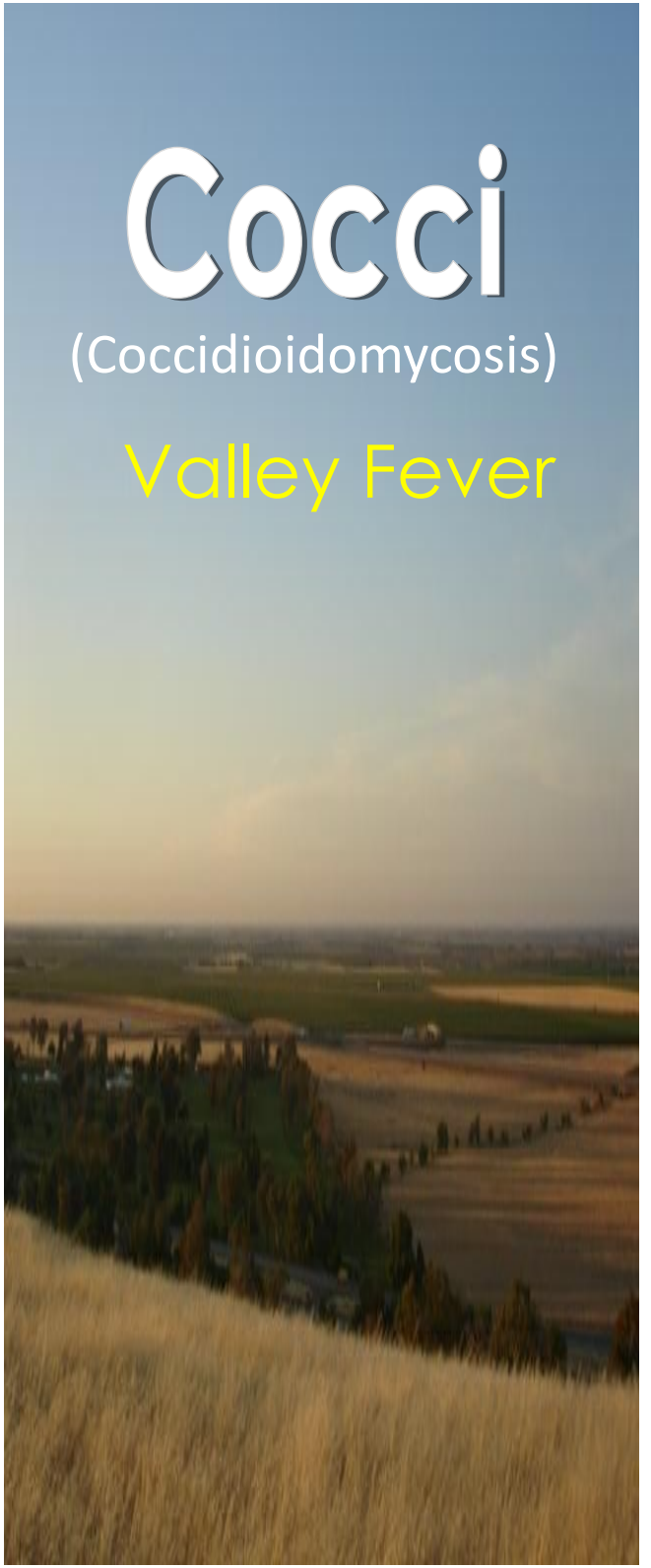
www.lung.org

Adapted from the Valley Fever Center for Excellence Coccidioidomycosis website www.vfce.arizona.edu and Kern County Department of Public Health

Cocci

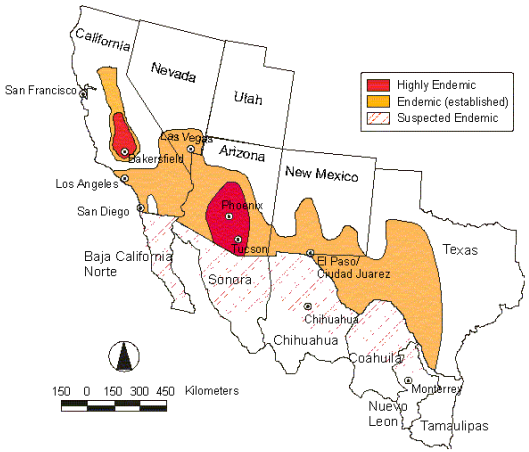
(Coccidioidomycosis)

Valley Fever



What is Valley Fever?

The technical name for Valley Fever is Coccidioidomycosis, or "cocci" for short. It is caused by *Coccidioides immitis*, a fungus somewhat like yeast or mildew which lives in the soil in the southwestern United States and northwestern Mexico. In California cocci predominates in the San Joaquin Valley. In San Joaquin County the highest rates are found in Tracy. The tiny seeds, or spores, of the fungal organism become wind-borne and are inhaled into the lungs where the infection starts. About 60 percent of the people who breath in the spores do not get sick at all. For some it may feel like a cold or the flu. For those sick enough to go to the doctor it can be serious with pneumonia-like symptoms that require medication and bed rest. Of all the people infected with cocci about one out of 200 will develop the disseminated form, which is severe and can be fatal. These are cases in which the disease spreads beyond the lungs through the blood stream — typically to the skin, bones, and the membranes surrounding the brain causing meningitis. Cocci is not contagious from person to person. It appears that after one exposure, the body develops immunity.



Who Gets Valley Fever?

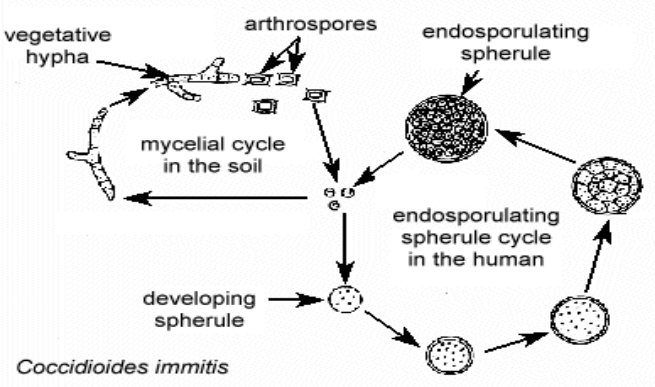
The disease may occur in any resident from the infected areas — or a visitor, often posing a diagnostic puzzle to the doctor back home. People most likely to be exposed are those in dusty occupations, such as farm workers, earth movers, and archaeologists. Persons between the ages of 25 and 55 are most likely to develop symptoms of the disease — although people of all ages can have symptoms. In its simple form (flu-like symptoms) cocci affects both men and women equally. However, the more serious or disseminated form of cocci is found more often in men than in women; pregnant women also seem to be more susceptible to the serious form. It is also many times more frequent in non-white people, and in those with impaired immune systems.

How the Spores Affect the Body

Floating freely in clouds of dust, the tiny cocci spores enter the body when we breath air into our lungs.

Most spores do not cause illness. The body's wonderful defense system works too well: the spores get caught in sticky mucus inside the air tubes and are moved back up into the throat where they are spit out or swallowed harmlessly.

But a few cocci spores do continue the invasion. They work their way down the air tubes into the end of the passage: the little air sacs of the lung where air ends up when it is inhaled.



Deep in the lung, the spores begin to grow. They develop into pods that are filled with even tinier seeds. The pods burst open, the seeds pour out and spread in the lung and sometimes to other parts of the body.

Wherever the spores settle down, the body reacts with inflammation. In the lungs, little patches of pneumonia can develop around the spores. Cavities or scars may result, and eventually deposits of calcium.

When the spores stay in the lungs the disease is said to be in its primary form. When the fungus spreads throughout the body — to the internal organs, bones, brain, and even the skin — cocci is in its disseminated form.

Symptoms

Perhaps as many as 60-70% of all people infected with cocci develop no symptoms at all. Some 30-40% do get sick — usually within one to three weeks after the cocci spores enter the body. Symptoms include aches, pains, cough, rash, and fever. There may also be tender red spots on the shins and pain in the joints. Usually symptoms disappear within a month or so, though full return of energy may take some months.

The disseminated form of the disease is a great deal more serious — with symptoms including joint swelling and skin lesions. Several studies have shown that the rate of dissemination in African Americans and Filipinos is several times higher compared to the rate for other race/ethnicities.