



www.arthritis.org
800-283-7800

Sarcoidosis

WHAT IS SARCOIDOSIS?

Sarcoidosis (SAR-coy-DOH-sis) is a systemic disease associated with inflammation. Sarcoidosis usually starts in the lungs or lymph nodes, but it can affect almost any body organ.

In sarcoidosis reactions called granulomas develop in the tissues affected by the inflammation. These are small areas made up of blood vessels, cells and connective tissue. Granulomas usually form in response to a foreign substance, chronic infection or inflammation. Granulomas can form in the lungs, muscles, lymph nodes, liver, spleen, joints, bone marrow and nervous system. Common symptoms of sarcoidosis include fever, arthritis, eye inflammation, muscle disease and skin rash.

WHO GETS SARCOIDOSIS?

Sarcoidosis is most common in adults between the ages of 20 and 40. It affects women more often than men. In the United States, it affects African Americans more often and more severely than Caucasians.

WHAT CAUSES SARCOIDOSIS?

The cause of sarcoidosis is unknown. Some causes may include:

- viral or bacterial infections;
- abnormalities in the body's immune system;
- environmental factors such as toxins or chemicals; and
- inherited or genetic factors.

Some people have no symptoms when sarcoidosis is first diagnosed by chest X-ray or other tests. With other people, sarcoidosis begins with a few symptoms, and then gradually becomes more widespread and serious. With still others, it begins with many symptoms that appear either gradually or very suddenly. Since sarcoidosis commonly causes lung disease, a chest X-ray is usually done to detect the condition. There is no one single test to diagnose sarcoidosis.

Sarcoidosis can affect people in different ways. The acute form of sarcoidosis is severe, but usually only lasts a short time. The chronic form can last several years or even a lifetime.

Lung Problems

Sarcoidosis often affects the lungs. Symptoms can include a dry cough, shortness of breath and/ or chest pain. Lymph gland enlargement around the trachea and large bronchi (air passage into the lungs) can be seen on chest X-rays.

Some people develop severe lung disease. You should not ignore symptoms of breathing problems. See your doctor right away if you have any of these symptoms.

Skin Problems

Several different types of rashes occur as a result of granuloma that form in the skin. A rash called lupus pernio is one form of sarcoidosis that appears on the face, especially on the nose, cheeks and ears. This type of granuloma can damage skin tissue and leave scars.

Another type of skin granuloma occurs on the face, hands, feet, buttocks and shoulders. This type usually clears up without leaving scars.

Erythema nodosum is another skin condition that can occur with sarcoidosis. It is a sudden, painful skin reaction characterized by tender red bumps on the shins. These bumps are about the size of a quarter or larger.

Erythema nodosum can be accompanied by arthritis of the ankle or swelling around the ankle, and a low-grade fever. It usually lasts from one to three weeks, and may recur. Erythema nodosum is seen in about half of people with the acute form of sarcoidosis who also have acute arthritis and lymph gland enlargement in the center of the chest.

Eye Problems

Sarcoidosis often affects the eyes. Inflammation occurs in the iris (the colored portion of the eye) and is called iritis. Symptoms include:

- blurred vision;
- redness of the eye; and
- pain and sensitivity to light.

If not treated properly, you may have vision loss. Tear glands also can become inflamed, causing dry eyes. Glaucoma (pressure inside the eye that can cause vision loss) also may occur. If you have sarcoidosis and notice any change in your eyes or your vision, call your doctor right away.

Arthritis

Arthritis means joint inflammation. It causes pain, warmth, redness and stiffness in the joints. People with sarcoidosis commonly develop arthritis, which affects women about twice as often as men.

The most common form of sarcoid arthritis is the acute form. Symptoms may include:

- joint involvement, usually of the ankles and knees;
- joint pain;
- limited movement;
- inflammation; and
- duration of symptoms lasting from two weeks to four months.

Acute sarcoid arthritis usually doesn't cause permanent damage to joints. However, in addition to joint symptoms, the acute form of sarcoidosis is associated with erythema nodosum and enlarged lymph glands in the chest.

Chronic sarcoid arthritis is less common and may include:

- involvement of just one or a few joints, usually the knees, ankles and/or hands;
- joint pain;
- limited movement;

- granulomas in the joint;
- possible joint destruction and disability; and
- dactylitis, a condition in which the fingers or toes become inflamed and swollen.

Other Symptoms

Other symptoms you may experience can include:

- fever;
- weight loss; and
- fatigue.

DIAGNOSIS

There are several ways your doctor can diagnose sarcoidosis. He or she will ask about your medical history, do a physical examination, do laboratory tests and take a chest X-ray. The chest X-ray will show a picture of the lungs, heart and surrounding tissues that contain lymph nodes. If eye problems are suspected, an ophthalmologist (eye specialist) may need to do a complete eye examination.

Your doctor also may do a biopsy. This is the removal of a piece of tissue from the skin lesions, lymph nodes or lungs. The tissue is examined under a microscope to see if granulomas are present.

Blood tests also can help find out if the body is affected by sarcoidosis and help rule out other diseases. The ACE (angiotensin converting enzyme) test is a special blood test used to help diagnose sarcoidosis.

TREATMENT

In a majority of people, sarcoidosis disappears and no long-term treatment is necessary. However, when long-term treatment is needed, the main goal is to keep the lungs working

properly. People with the acute form of sarcoidosis may need treatment to relieve pain from skin nodules or joint inflammation. The treatment for joint inflammation includes medication to reduce inflammation.

Nonsteroidal anti-inflammatory drugs (NSAIDs) are medications used to treat inflammation and pain. Examples of NSAIDs include ibuprofen and naproxen. COX-2 inhibitors, a class of NSAIDs, also may be used. Colchicine, a drug used to treat a form of arthritis called gout, also can be helpful.

Glucocorticoids are the main treatment for sarcoidosis. These drugs help reduce pain and inflammation and the occurrence of granulomas. Doctors also may prescribe glucocorticoids, such as prednisone, for those people who do not respond to NSAIDs. Glucocorticoids can cause side effects such as mood swings and weight gain.

Other medications may be helpful in the treatment of sarcoidosis. Some studies show that methotrexate given by mouth in low doses once a week may help lung problems. Chronic arthritis and skin involvement may improve from treatment with antimalarial drugs such as chloroquine or hydroxychloroquine.

Researchers also are studying immune suppressive drugs such as azathioprine and cyclosporine in sarcoidosis. These drugs can change the immune system to decrease the activity of the sarcoidosis lesions that can harm certain areas of the body.

RESEARCH

Since 1948, the Arthritis Foundation has invested more than \$272 million on research to help prevent, control and cure arthritis and related conditions. Research directed at a better understand-

ing of the role of inflammation and the immune system is a major focus of the Arthritis Foundation Research Program and will lead to more effective treatment of diseases such as sarcoidosis.

THE ARTHRITIS FOUNDATION

The mission of the Arthritis Foundation is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases.

The Arthritis Foundation supports research with the greatest potential for advances and has invested more than \$320 million in these efforts since its inception in 1948. Additionally, the Arthritis Foundation supports key public policy and advocacy efforts at a local and national level in order to make a difference on behalf of 70 million people living with arthritis.

As your partner in taking greater control of arthritis, the Arthritis Foundation also offers a large number of programs and services nationwide to make life with arthritis easier and less painful and to help you become an active partner in your own health care.

Contact us at (800) 283-7800 or visit us on the Web at www.arthritis.org to become an Arthritis Advocate or to find out how you can become involved.

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For more information: The Arthritis Foundation offers a wide variety of books, brochures and videos about different forms of arthritis, treatment and self-management techniques to help you take control of your arthritis. To order any of these products, become an Arthritis Foundation member or to subscribe to the Arthritis Foundation's award-winning consumer health magazine, *Arthritis Today*, call (800) 283-7800. Call or visit our Web site (www.arthritis.org) to find out how you can take control of your arthritis and start living better today!

MISSION STATEMENT:

The mission of the Arthritis Foundation is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases.

This brochure has been reviewed by the AMERICAN COLLEGE OF RHEUMATOLOGY.



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