

# Scleroderma

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## Introduction

Scleroderma is an autoimmune disorder which causes patches of thick skin and lines of scar tissue to form on the skin. Scarring usually appears on the face and limbs. In some cases other organs are affected, too.

Scleroderma is an autoimmune disorder affecting the skin and in some cases other organ systems. Autoimmune disorders cause antibodies to mistakenly attack healthy tissues. Inflammation, pain, scarring and other malfunction of the affected tissue results. <br><br>Localized scleroderma appears on the skin either in lines of scar tissue or as oval shaped-patches. Systemic sclerosis is inflammation of the skin as well as autoimmune activity in other areas of the body. Major organs can all be targeted by autoimmune disorders. Symptoms differ depending on which tissues are attacked.<br><br>Autoimmune disorders like scleroderma are not curable, but the symptoms are treatable. Drugs generally used to treat scleroderma include skin creams, immunosuppressants, corticosteroids, and NSAID pain relievers. In systemic sclerosis, other resulting conditions such as gastric distress or narrowed arteries may require additional drugs regimens specific to the case.

## Symptoms

Scleroderma is an autoimmune disorder causing thickening and scarring of the skin and surrounding tissues.

Scleroderma is a rare autoimmune disorder primarily affecting the skin. Other systems and tissues may be affected. Oval shaped patches of hardened skin or thick lines which resemble scar tissue appear on the body.<br><br>Systemic sclerosis is the term for cases of scleroderma which have spread to other systems of the body. Blood circulation and the digestive system can be affected as well as joints and nervous tissues.<br><br>These symptoms are result of an autoimmune disorder.

## Causes

Scleroderma sufferers have thick, scarred markings caused by the skin's response to an autoimmune disorder.

Scleroderma is a rare autoimmune disorder primarily affecting the skin. Normally, the body responds to infection by sending antibodies to attack disease. Antibodies cause swelling and inflammation while they fight infection. When the immune system malfunctions, healthy tissues are attacked by antibodies. When healthy tissues are attacked they respond by producing collagen and causing thickening and hardening of the tissue, or fibrosis.<br><br>Autoimmune disorders are not fully understood. Scleroderma is not contagious through contact but a genetic link has been shown. It is believed that some people are genetically predisposed to be more sensitive to infection or outside irritants and fibrosis is more likely to occur.

## Diagnosis

Scleroderma is usually diagnosed clinically based on an examination of skin abnormalities. Lab tests can provide more information in cases where the whole body is affected.

Scleroderma is first diagnosed based on symptoms of the skin. Autoimmune disorders can cause general maladies which can sometimes only be properly diagnosed using lab tests to rule out other diseases known to cause the same symptoms. Genetic tests can identify patients more prone to autoimmune disorders although these tests are not always performed. <br><br>Localized scleroderma</b> presents as distinct and recognizable formations on the skin. Doctors can look for lines of scarring or oval-shaped patches of thick skin (morphea). <br><br>Other organ systems are vulnerable to attacks by the autoimmune system. Symptoms present in other areas of the body may resemble other conditions such as respiratory diseases, bowel disorders, or heart disease. These other conditions may individually be ruled out with lab testing. Symptoms will vary per case, as they depend on which organs are being attacked. <br><br>Limited cutaneous systemic sclerosis</b> usually presents as localized scleroderma (skin scarring) combined with additional symptoms. Raynaud's phenomenon is when extremities such as the fingers and toes turn white in the cold. Thickening of skin on the limbs and face can appear. Red spots show

dilated blood vessels and the fingertips may form hard lumps of calcium which can be felt beneath the skin.  
**Diffuse systemic sclerosis** is systemic scleroderma which is more severe than cutaneous systemic sclerosis. Scarring and redness can affect skin all over the body. General symptoms present more severely. Diffuse systemic sclerosis causes inflammation which will adversely affect function of the kidneys, lungs, circulatory system, or bowels.

## Treatment

Treatments for scleroderma consists of drug regimens, skin creams, exercise, and surgery when necessary.

Scleroderma is an autoimmune disorder, a cure which is not known yet. Doctors still have options for treating symptoms. Lifestyle interventions, drug regimens, and surgical means are options for treatments of scleroderma.  
Drugs, prescription and over the counter, are ordered based on individual cases:

- Immunosuppressants** are drugs which inhibit antibody activity, thereby reducing their ability to cause inflammation and swelling to healthy tissue.
- Corticosteroids**, or “steroids” are powerful anti-inflammatory drugs. They may be taken orally or applied in a topical cream.
- NSAID Painkillers**, also known as non-steroidal anti-inflammatory drugs, reduce pain and inflammation. Ibuprofen, aspirin, and naproxen are examples. Generic drugs and brand counterparts (Advil, Tylenol, Aleve) are available over the counter.
- Hypertensive drugs** (commonly called “heart medications”) are used in cases where swelling and arterial narrowing cause cardiac disorders.
- Stomach medications** help relieve digestive discomfort which occurs in gastric cases. Diarrhea, constipation and pain can be relieved with pills or liquid remedies which curb acid, ease gas or cramping, etc.

**Exercise therapy** is important. Moving and stretching preserves range of motion when joints and connective tissues begin to thicken.  
**Skin-care**, treating and preventing the dry, cracked skin caused by scleroderma, will relieve itching and uncomfortable flaking. Moisturized skin is less prone to cracking and itching. Topical treatments and non-irritating cleansers are available by prescription or over the counter.  
**Surgery** can be called for in situations where drugs and other methods are not effective. Arterial plaque may need to be cleared from narrow arteries, or hard deposits might need to be scraped from under a patient's skin.