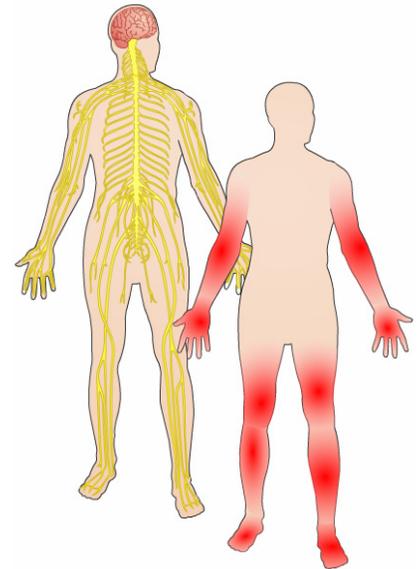


Complex Regional Pain Syndrome - CRPS

Introduction

CRPS stands for complex regional pain syndrome. It is a nerve disorder that causes intense pain, often in the arms, hands, legs, or feet. The cause of CRPS is unknown, and there is no cure. Treatment focuses on relieving the pain.

This reference summary explains complex regional pain syndrome. It covers symptoms, causes, diagnosis, and treatment.



The Nerves

The brain is the control center of the body. It controls the 5 senses, as well as the ability to move, think, and speak. A network of nerves carries messages back and forth between the brain and the rest of the body. These nerves run from the brain, through the neck, and down each side of the body.

Nerves connecting the brain to the body make up the spinal cord. The vertebrae protect the spinal cord. Nerves branch off from the spinal cord to various organs and muscles, including those in the arms and legs. The nerves carry instructions from the brain to the muscles, organs, and limbs. The nerves also carry sensations such as pain from different parts of the body to the brain.

Symptoms

Symptoms of CRPS vary from person to person. Which symptoms a person has and how severe they are may also change over time. The main symptom of CRPS is continuous, intense pain in the affected area. Often CRPS affects the arms, legs, hands, or feet. The pain also tends to get worse over time instead of better. Often the pain spreads to the entire arm or leg. It can travel to the opposite arm or leg as well. Emotional stress may make the pain worse.



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Other common symptoms of CRPS include:

- Burning pain.
- Changes in nail and hair growth patterns.
- Decreased ability to move the affected body part.
- Increased skin sensitivity.
- Swelling and stiffness in affected joints.

The skin of the affected area may also show some signs of CRPS. These include changes in:

- Color: often blotchy, purple, pale, or red.
- Temperature: the affected area is warmer or cooler compared to the opposite area.
- Texture: usually shiny and thin, sometimes excessively sweaty.



See your health care provider if you have severe pain in a limb that makes it difficult for you to touch it or move it. Treatment for CRPS is most effective when started early.

Causes

There are two types of CRPS. Each type has a different cause. About ninety percent of people with CRPS have type 1. Type 1 happens after an illness or injury. The illness or injury does not directly damage the nerves in the affected area.

Type 2 happens after a nerve injury. Damage to the nerve causes the symptoms of CRPS. Often CRPS is caused by injury or trauma to an arm or leg. Some examples include the arm or leg being crushed or broken. Other illnesses or injuries that can cause CRPS are:

- Heart attacks.
- Infections.
- Sprained ankle.
- Surgery.

Doctors do not know for sure what causes CRPS to develop after certain injuries. It may be due to inflammation in the body after an injury. It may also be caused by the nerves in the body not being able to work together correctly.



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It is likely that CRPS does not have a single cause. Instead, CRPS may be the result of multiple factors that cause similar symptoms. More research is needed to understand the causes of CRPS.

Diagnosis

CRPS can be difficult to diagnose. Many other conditions have similar symptoms. Also, in some cases the symptoms of CRPS will gradually improve over time without treatment.

There is no specific test for CRPS. Instead, your health care provider will diagnose CRPS using your symptoms and the results of multiple tests. These tests rule out other conditions that can cause similar symptoms. Your health care provider will first ask about your medical history and symptoms. He or she will also perform a physical exam.



Tests may be done to check the skin temperature and blood flow in the affected limb. The amount of sweat may also be measured. These tests will be done on the unaffected limb as well. This allows your health care provider to compare the results.

Other tests may look for changes in the bones. A bone scan uses a safe amount of radioactive substance injected into a vein. The substance allows your health care provider to see your bones with a special camera.

X-rays can also show bone changes. However, these changes may only be seen on x-rays in later stages of CRPS. Another imaging test called an MRI may also be done. An MRI can show changes to body tissues caused by CRPS. An MRI uses strong magnets to create images of the inside of the body.



MRI

Treatment

There is no cure for CRPS. However, early treatment can decrease symptoms. In some cases, the symptoms may even disappear for a period of time. Often a combination of treatments is used. Your health care provider will create a treatment plan based on your symptoms and how severe they are.

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Various medicines may be used to treat CRPS, including:

- Antidepressants and anticonvulsants. Pain caused by a damaged nerve can be controlled using these medicines.
- Bone-loss medicines. These medicines can prevent or delay bone loss related to CRPS.
- Corticosteroids. These medicines reduce inflammation. Reducing inflammation in the affected area may make the limb easier to move.
- Pain relievers. Over-the-counter pain medicines can reduce pain and inflammation. Some examples include aspirin, ibuprofen, and naproxen. Prescription pain medicines may be given if over-the-counter medicines do not work.



Certain therapies can also be used to treat CRPS. For example, a cold pack can be applied to the affected area to relieve inflammation and sweating. If the area is cool, applying heat may help reduce symptoms. If the skin in the affected area is extra sensitive, topical analgesics may help. Topical analgesics are creams that reduce pain when applied to the skin.

Physical therapy can also be helpful to some people with CRPS. Physical therapy teaches exercises that can help restore motion to an affected limb. It is most effective when started soon after the symptoms begin.



A nerve block may also help some people with CRPS. During a nerve block, an anesthetic is injected around the affected nerves. This helps relieve pain in some people.

Severe pain may be treated with transcutaneous electrical nerve stimulation, or TENS. TENS uses electrical impulses to reduce pain. The electrical impulses are applied to the affected nerve endings. Spinal cord stimulation may also relieve severe pain. For this treatment, tiny electrodes are surgically placed along the spinal cord. The electrodes deliver a small electrical current to the spinal cord. This can relieve pain in some people with CRPS.

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Other treatments may also be available. Talk to your health care provider about which treatments will work best for you.

Summary

Complex regional pain syndrome is an uncommon nerve disorder. CRPS causes intense pain, usually in the arms, hands, legs, or feet.

There are two types of CRPS. About ninety percent of people with CRPS have type 1. Type 1 happens after an illness or injury that does not directly damage the nerves in the affected area. Type 2 happens after a nerve injury.

Doctors do not know for sure what causes CRPS to develop after certain injuries. It is likely that CRPS does not have a single cause.

There is no cure for CRPS. However, many treatment options are available. Treatment focuses on relieving the pain. Early treatment is most effective. In some cases, the symptoms may even disappear for a period of time.



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