

Complex Regional Pain Syndrome

This information is provided by the National Institute of Neurological Disorders and Stroke (NINDS) of the US Government's National Institutes of Health at http://www.ninds.nih.gov/health_and_medical/disorders/reflex_sympathetic_dystrophy.htm

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NINDS Complex Regional Pain Syndrome (also called Reflex Sympathetic Dystrophy Syndrome) Information Page

Synonym(s): Reflex Sympathetic Dystrophy Syndrome, Causalgia

Reviewed 07-01-2001

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What is Complex Regional Pain Syndrome?

Complex regional pain syndrome (CRPS) is a chronic condition characterized by severe burning pain, pathological changes in bone and skin, excessive sweating, tissue swelling, and extreme sensitivity to touch. The syndrome is a nerve disorder that occurs at the site of an injury (most often to the arms or legs). It occurs especially after injuries from high-velocity impacts such as those from bullets or shrapnel. However, it may occur without apparent injury. One visible sign of CRPS near the site of injury is warm, shiny red skin that later becomes cool and bluish. The pain that patients report is out of proportion to the severity of the injury and gets worse, rather than better, over time. Eventually the joints become stiff from disuse, and the skin, muscles, and bone atrophy. The symptoms of CRPS vary in severity and duration. The cause of CRPS is unknown. The disorder is unique in that it simultaneously affects the nerves, skin, muscles, blood vessels, and bones. CRPS can strike at any age but is more common between the ages of 40 and 60, although the number of CRPS cases among adolescents and young adults is increasing. CRPS is diagnosed primarily through observation of the symptoms. Some physicians use thermography to detect changes in body temperature that are common in CRPS. X-rays may also show changes in the bone.

Is there any treatment?

Physicians use a variety of drugs to treat CRPS. Elevation of the extremity and physical therapy are also used to treat CRPS. Injection of a local anesthetic is usually the first step in treatment. TENS (transcutaneous electrical stimulation), a procedure in which brief pulses of electricity are applied to nerve endings under the skin, has helped some patients in relieving chronic pain. In some cases, surgical or chemical sympathectomy -- interruption of the affected portion of the sympathetic nervous system -- is necessary to relieve pain. Surgical sympathectomy involves cutting the nerve or nerves, destroying the pain almost instantly, but surgery may also destroy other sensations as well.

What is the prognosis?

Good progress can be made in treating CRPS if treatment is begun early, ideally within three months of the first symptoms. Early treatment often results in remission. If treatment is delayed, however, the disorder can quickly spread to the entire limb, and changes in bone and muscle may become irreversible. In 50 percent of CRPS cases, pain persists longer than 6 months and sometimes for years.

What research is being done?

Investigators are studying new approaches to treat CRPS and intervene more aggressively after traumatic injury to lower the patient's chances of developing the disorder. Scientists are studying how signals of the sympathetic nervous system cause pain in CRPS patients. Using a technique called microneurography, these investigators are able to record and measure neural activity in single nerve fibers of affected patients. By testing various hypotheses, these researchers hope to discover the unique mechanism that causes the spontaneous pain of CRPS, and that discovery may lead to new ways of blocking pain.

Organizations

American Chronic Pain Association (ACPA)

P.O. Box 850
Rocklin, CA 95677-0850
ACPA@pacbell.net
<http://www.theacpa.org>
Tel: 916-632-0922 800-533-3231
Fax: 916-632-3208

National Chronic Pain Outreach Association (NCPOA)

P.O. Box 274
Millboro, VA 24460
ncpoa@cfw.com
<http://www.chronicpain.org>

Tel: 540-862-9437

Fax: 540-862-9485

Reflex Sympathetic Dystrophy Syndrome Association (RSDSA)

P.O. Box 502

Milford, CT 06460

info@rsds.org

<http://www.rsds.org>

Tel: 203-877-3790 877-662-7737

Fax: 203-882-8362

American RSDHope Group

P.O. Box 875

Harrison, ME 04040-0875

rsdhope@mail.org

<http://www.rsdhope.org/>

Tel: 207-583-4589

National Foundation for the Treatment of Pain

P.O. Box 70045

Houston, TX 77270

markgordon@paincare.org

<http://www.paincare.org>

Tel: 713-862-9332

Fax: 713-862-9346

American Pain Foundation

201 North Charles Street

Suite 710

Baltimore, MD 21201-4111

info@painfoundation.org

<http://www.painfoundation.org>

Tel: 888-615-PAIN (7246) 410-783-7292

Fax: 410-385-1832

National Headache Foundation

820 N. Orleans

Suite 217

Chicago, IL 60610-3132

info@headaches.org

<http://www.headaches.org>

Tel: 773-388-6399 888-NHF-5552 (643-5552)

Fax: 773-525-7357

Mayday Fund [For Pain Research]

c/o SPG

136 West 21st Street, 6th Floor
New York, NY 10011
mayday@maydayfund.org
<http://www.painandhealth.org>
Tel: 212-366-6970
Fax: 212-366-6979

International Research Foundation for RSD/CRPS

USF Medical Clinics c/o Dr. A. Kirkpatrick
12901 Bruce Downs Blvd. MDC59
Tampa, FL 33612
info@rsdfoundation.org
<http://www.rsdfoundation.org>
Tel: 813-907-2312
Fax: 813-994-8446

Related NINDS Publications and Information

- ? Reflex Sympathetic Dystrophy Syndrome Fact Sheet
Complex Regional Pain Syndrome (CRPS)/Reflex Sympathetic Dystrophy Syndrome fact sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS).

- ? La Distrofia Simpática Refleja/El Síndrome de Dolor Regional Complejo
Informacion de la Distrofia Simpática Refleja/el Síndrome de Dolor Regional Complejo/Spanish-language fact sheet on Reflex Sympathetic Dystrophy Syndrome/Complex Regional Pain Syndrome (RSDS/CRPS), compiled by the National Institute of Neurological Disorders and Stroke (NINDS).

- ? Chronic Pain Information Page
Chronic pain information page compiled by the National Institute of Neurological Disorders and Stroke (NINDS).

- ? Pain: Hope Through Research
Information booklet on pain compiled by the National Institute of Neurological Disorders and Stroke (NINDS).

- ? Reflex Sympathetic Dystrophy/ Complex Regional Pain Syndromes (CRPS): State-of-the-Science
A workshop on Reflex Sympathetic Dystrophy/ Complex Regional Pain Syndromes (CRPS): State-of-the-Science, December 15, 2001.

Provided by:
The National Institute of Neurological Disorders and Stroke (NINDS)
National Institutes of Health
Bethesda, MD 20892

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