

MANAGING YOUR COMPARTMENT SYNDROME

What Is Compartment Syndrome?

Compartment syndrome is a painful condition caused by a buildup of pressure in muscles. A tough membrane called a fascia covers groups of muscles. These groupings are called muscle compartments. Compartments also contain nerves and blood vessels. Fascia doesn't stretch. So if muscles inside swell, pressure in a compartment rises. Pressure that gets very high can cause blood vessels to be crushed. Blood cannot pass through the vessels to carry oxygen to muscles and nerves. This is compartment syndrome.

What Causes Compartment Syndrome?

This syndrome can be acute or chronic. The acute type usually follows injury or surgery. It can happen when an arm or leg swells inside a cast. Chronic (or exertional) compartment syndrome happens after exercise, usually to athletes and soldiers.

What Are the Symptoms of Compartment Syndrome?

Chronic compartment syndrome usually causes cramping pain in both legs that begins during exercise and gets worse as exercise continues. Tingling, numbness, or pressure may be felt. The area may be tight but doesn't look swollen. Pain stops after exercise stops. Muscle weakness may be present. Acute compartment syndrome causes severe pain, which is worst when the muscle is stretched. The area may feel hard. Pain tends to be disproportional to the injury.

How Is Compartment Syndrome Diagnosed?

The health care provider will probably first test for other, more common causes of pain. The health care provider will take a medical history, do a physical examination, and maybe order x-rays, ultrasonography, or magnetic resonance imaging (MRI).

The health care provider may suggest seeing a specialist. The specialist may measure pressure inside the muscle compartment with a needle attached to a pressure meter.

How Is Compartment Syndrome Treated?

Emergency surgery is needed for the acute syndrome to prevent muscles and nerves from dying. Treated quickly, they'll likely return to normal. Untreated, people could be disabled or lose a leg or arm. The surgeon will cut open the fascia to relieve the pressure. Often, the wound is left open for 2 to 3 days and then closed in another operation. A graft of skin from another part of the body may be needed to repair the wound. Hyperbaric oxygen in a hospital hyperbaric unit is also helpful.

The chronic syndrome is usually treated by surgery. The surgeon cuts, or partly removes, the fascia so that muscles have room to swell. Most people who have surgery can exercise as before. Muscles may bulge out more, because the fascia doesn't hold them in.

Treatments other than surgery include doing different and various sports (for example, cycling or swimming instead of running), changing the technique for the same sport, taking a complete break from sports, and medications to control the pain. Compartment syndrome often comes back after nonsurgical treatment if the initial cause is untreated.

DOs and DON'Ts in Managing Compartment Syndrome

- ✓ **DO** warm up before exercise and cool down after.
- ✓ **DO** stop exercising if you feel pain.

- ✓ **DO** follow your health care provider's instructions for recovery after surgery.
- ✓ **DO** call your health care provider immediately if you get severe muscle pain after an injury.
- ⊗ **DON'T** keep exercising through pain. You could damage your nerves or muscles permanently.
- ⊗ **DON'T** use bandages or supports. They may make pressure in muscle compartments worse.

FROM THE DESK OF

NOTES

FOR MORE INFORMATION

Contact the following source:

- The American Academy of Orthopaedic Surgeons: Tel: (800) 346-2267; Website:
<http://www.aaos.org>

Copyright © 2021 by Elsevier, Inc.