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Costochondritis

By Mayo Clinic staff

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Definition



Costochondritis

Costochondritis (kos-toe-KHON-dri-tis) is an inflammation of the cartilage that connects a rib to the breastbone (sternum) — a junction known as the costosternal joint. Pain caused by costochondritis may mimic that of a heart attack or other heart conditions.

Your doctor might refer to costochondritis by other names, including chest wall pain, costosternal syndrome and costosternal chondrodynia. When the pain of costochondritis is accompanied by swelling, it's referred to as Tietze syndrome.

Most cases of costochondritis have no apparent cause. In these cases, treatment focuses on easing your pain while you wait for costochondritis to improve on its own.

Symptoms



Costochondritis

The pain and tenderness associated with costochondritis usually:

- Occurs on left side of breastbone
- Affects more than one rib
- Worsens when taking deep breaths or coughing

When to see a doctor

If you have chest pain, you should seek emergency medical attention to rule out life-threatening causes such as a heart attack.

Causes

Most cases of costochondritis have no clear cause. Occasionally, however, costochondritis may be a result of:

- **Injury.** A blow to the chest could cause costochondritis.

- **Physical strain.** Heavy lifting and strenuous exercise have been linked to costochondritis, as has severe coughing.
- **Arthritis.** In some people, costochondritis has been linked to specific problems, such as osteoarthritis, rheumatoid arthritis and ankylosing spondylitis.
- **Joint infection.** The rib joint itself can become infected by viruses, bacteria or fungi. Examples include tuberculosis, syphilis and aspergillosis.
- **Tumors.** Noncancerous and cancerous tumors also can cause costochondritis. Cancer may travel to the joint from another part of the body, such as the breast, thyroid or lung.

Risk factors

Costochondritis occurs most often in women and in people older than 40.

Preparing for your appointment

Seek emergency medical attention if you experience chest pain or pressure that lasts for more than a few moments. If you have less alarming pain or tenderness in or around your breastbone that isn't improving, make an appointment with your doctor.

What you can do

Before your appointment, you might want to write a list of all the medications and supplements you take, in addition to a list of questions for the doctor, such as:

- What is likely causing my symptoms or condition?
- Are there other possible causes for my symptoms or condition?
- What kinds of tests do I need?
- What treatment approach do you recommend, if any?
- What self-care steps are likely to help improve my symptoms?
- Do I need to follow any activity restrictions?
- What new signs or symptoms should I watch for at home?
- How soon do you expect my symptoms will resolve?
- Should I see a specialist?

You may also want to bring a family member or friend along to the appointment. They can help remember information that you missed or forgot.

What to expect from the doctor

A doctor who sees you for chest pain may ask:

- When did you first begin experiencing these symptoms?
- Have your symptoms gotten worse over time?

- Where is your pain located?
- Does anything else seem to make your pain worse?
- Does anything seem to make your pain better?
- Are you having any difficulty breathing?
- Does exercise or physical exertion make your symptoms worse?
- Have you had any recent respiratory infections?
- Have you had any recent injuries to your chest?
- Have you been diagnosed with any other medical conditions?
- Have you recently experienced a significant amount of stress or change?
- Are you aware of any history of heart problems in your family?

Tests and diagnosis

During the physical exam, your doctor will feel along your breastbone for areas of tenderness or swelling. He or she may also move your rib cage or your arms in certain ways to try to trigger your symptoms.

The pain of costochondritis can be very similar to the pain associated with heart disease, lung disease, gastrointestinal problems and osteoarthritis. While there is no laboratory or imaging test to confirm a diagnosis of costochondritis, your doctor may order a variety of tests — such as a chest X-ray or an electrocardiogram — to rule out other conditions.

Treatments and drugs

Costochondritis usually goes away on its own, although in some cases it may last for several months or longer. Treatment focuses on pain relief.

Medications

If over-the-counter pain relievers aren't enough, your doctor may recommend:

- **Prescription NSAIDs.** While some nonsteroidal anti-inflammatory drugs (NSAIDs) — such as ibuprofen (Advil, Motrin, others) and naproxen (Aleve) — can be purchased over-the-counter, stronger varieties are available by prescription. NSAIDs can damage your stomach lining and kidneys.
- **Narcotics.** If your pain is severe, your doctor might prescribe medications containing codeine, such as hydrocodone (Vicodin, Lortab, others) or oxycodone (Percocet, Roxilox, others). Narcotics can be habit-forming.
- **Antidepressants.** Tricyclic antidepressants, such as amitriptyline, are often used to control chronic pain — especially if it's keeping you awake at night.
- **Anti-seizure drugs.** The epilepsy drug gabapentin (Neurontin, Gralise, others) also has proven successful in controlling chronic pain.

Therapy

Physical therapy treatments might include:

- **Stretching exercises.** Gentle range-of-motion exercises may be helpful.
- **Nerve stimulation.** In a procedure called transcutaneous electrical nerve stimulation (TENS), a device sends a weak electrical current via adhesive patches on the skin near the area of pain. This may interrupt or mask pain signals, preventing them from reaching your brain.

Surgical and other procedures

If conservative measures don't work, your doctor may suggest injecting numbing medication and a corticosteroid directly into the painful joint.

Lifestyle and home remedies

It can be frustrating to know that there's little your doctor can do to treat your costochondritis. But you can take self-care measures to make yourself more comfortable, which can give you a greater sense of control over your condition. Try the following:

- **Over-the-counter pain relievers.** Costochondritis symptoms can often be controlled with acetaminophen (Tylenol, others), ibuprofen (Advil, Motrin, others) or naproxen (Aleve).
- **Heat or ice.** Try placing hot compresses or a heating pad to the painful area several times a day. Keep the heat on a low setting. Ice also may be helpful.
- **Rest.** Avoid activities that make your pain worse.

Prevention

Although the cause of costochondritis is often unknown, there's some evidence that children who carry a heavy school bag, especially over one shoulder, are at increased risk of this condition. Upper respiratory infections, heavy lifting and strenuous exercise also may be linked to costochondritis.

Common-sense preventive steps that may reduce the risk of costochondritis and protect you and your family's overall health include:

- **Encourage your child to use school bags properly.** Make sure your child's bag is not so heavy that your child's shoulders slump, and show your child how to carry the bag appropriately.
- **Avoid activities that seem to trigger costochondritis-like pain.** If chest pain and tenderness seem to result from physical exertion, ask your doctor to provide safe guidelines for your exercise program and for lifting.
- **Take steps to prevent respiratory infection.** Wash your hands thoroughly and often, avoid sharing drinking glasses or utensils with others and limit your exposure to people who are ill.

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