Costochondritis is an inflammation of the junctions where the ribs join with the cartilage that holds them to the breastbone, or sternum. The condition causes localized chest pain that you can reproduce by pushing on the cartilage in the front of your ribcage. Costochondritis is a relatively harmless condition and usually goes away without treatment. The cause is usually unknown, but may happen from increased activity involving the arms.

- Costochondritis (with unknown cause) is a common cause of chest pain in children and adolescents. It accounts for 10% to 30% of all chest pain in children. Annually, doctors evaluate about 650,000 cases of chest pain in young people ages 10 to 21. The peak age for the condition is ages 12-14.

- Costochondritis is also considered as a possible diagnosis for adults who have chest pain. Chest pain in adults is considered a potentially serious sign of a heart problem by most doctors until proven otherwise. Chest pain in adults usually leads to a battery of tests to rule out heart attack and heart disease. If those tests are normal and your physical exam is consistent with costochondritis, your doctor will diagnose costochondritis as the cause of your chest pain. It is important, however, for adults with chest pain to be examined and tested for heart disease before being diagnosed with costochondritis. It is often difficult to distinguish between the two without further testing. The condition affects females more than males (70% versus 30%). Costochondritis may also occur as the result of an infection or as a complication of surgery on your sternum.

- Tietze syndrome is often referred to as costochondritis, but the two are distinct conditions. Tietze syndrome usually comes on abruptly, with chest pain radiating to your arms or shoulder and lasting several weeks. Tietze syndrome is accompanied by a localized swelling at the painful area (the junction of the ribs and breastbone).

**Costochondritis Causes**

Costochondritis is an inflammatory process but usually has no definite cause. Repeated minor trauma to the chest wall, overuse of the arms, or viral respiratory infections can commonly cause chest pain due to costochondritis. Occasionally, costochondritis as a result of bacterial infections can occur in people who use IV drugs or who have had surgery to their upper chest. After surgery, the cartilage can become more prone to infection, because of reduced blood flow in the region that has been operated on.

**Costochondritis Symptoms**

Chest pain associated with costochondritis is usually preceded by exercise, minor trauma, or an upper respiratory infection.

- The pain usually will be sharp and located on your front chest wall. It may radiate to your back or abdomen and is more common on your left side.

- The most common sites of pain are your fourth, fifth, and sixth ribs. This pain increases as you move your trunk or take deep breaths. Conversely, it decreases as your movement stops or with quiet breathing.
• The reproducible tenderness you feel when you press on the rib joints (costochondral junctions) is a constant feature of costochondritis. Without this tenderness, a diagnosis of costochondritis is unlikely.
• Tietze syndrome, on the other hand, exhibits swellings at the rib-cartilage junction. Costochondritis has no noticeable swelling. Neither condition involves pus or abscess formation. Tietze syndrome usually affects the junctions at the second and third ribs. The swelling may last for several months. The syndrome can develop as a complication of surgery on your sternum months to years after the operation.

When to Seek Medical Care

Call the doctor for any of the following symptoms:
• Trouble breathing
• High fever
• Signs of infection such as redness, pus, and increased swelling at the rib joints
• Worsening pain despite medication or no improvement after two weeks
• Nausea
• Sweating

Go to a hospital’s emergency room if you have difficulty breathing or any of the following symptoms occur. These symptoms are generally not associated with costochondritis:

• High fever not responding to fever-reducers such as acetaminophen (Tylenol) or ibuprofen (Advil)
• Signs of infection at the tender spot, such as pus, redness, increased pain, and swelling
• Persistent chest pain of any type associated with nausea, sweating, left arm pain, or any generalized chest pain that is not well localized. These may be signs of a heart attack. If you are not sure what is causing your condition, always go to the emergency room.

Home Remedies for Costochondritis
• Pain relievers such as nonsteroidal anti-inflammatory medications like ibuprofen (Advil, Motrin) or naproxen (Aleve) as needed
• Splinting the chest while coughing, laughing, or sneezing.
• Local heat or ice to relieve pain
• Avoiding unnecessary exercise or activities that make the symptoms worse; avoid contact sports until there is improvement in symptoms, and then return to normal activities only as tolerated.

http://www.webmd.com/pain-management/costochondritis