CONDITION

Slipping rib syndrome

Slipping rib syndrome causes pain when a lower rib moves more than usual and irritates nearby tissue or nerves.

WHAT IT IS
Painful excess movement of a lower rib

BODY SYSTEM
Bones, joints, muscles, and nerves

MAIN SYMPTOMS
Lower chest pain, upper abdominal pain, clicking, popping

WHAT CAUSES IT
Loose rib cartilage attachments, sometimes after injury

HOW IT IS DIAGNOSED
Clinical examination and dynamic ultrasound

MAIN TREATMENT
Pain management, activity adjustment, injections, or surgery

CAN IT BE CURED?
Sometimes - surgery can stop mechanical slipping

IS IT AN EMERGENCY?
Sometimes - new chest pain with breathing trouble

LONG-TERM OUTLOOK
Benign condition, though pain may recur

Overview

Slipping rib syndrome is a painful condition involving the lower edge of the rib cage. It usually affects the eighth, ninth, or tenth ribs. These ribs connect to one another through cartilage rather than attaching directly to the breastbone.

In this condition, one rib tip moves more than it should. It may slide under or over the cartilage above it. This movement can irritate an intercostal nerve, which runs between the ribs. It can also inflame nearby muscles and other soft tissues.

The pain may be felt in the lower chest, upper abdomen, side, or back. Some people notice a click, pop, or slipping feeling. Symptoms often worsen with twisting, bending, coughing, deep breathing, or certain exercises.

Slipping rib syndrome does not usually damage the heart, lungs, or abdominal organs. However, its symptoms can resemble other causes of chest or abdominal pain. A careful medical assessment is important, especially when pain is new or has changed.

Symptoms

The main symptom is pain near the lower rib margin. This is the curved lower edge of the rib cage. Pain often affects one side, although both sides can be involved.

The pain may be sharp and sudden during a particular movement. At other times, it may feel like a dull ache, burning sensation, or persistent soreness. It can spread toward the upper abdomen, flank, shoulder blade, or back.

Common features include:

Some people can reproduce the sensation by moving or pressing near the rib margin. Repeatedly trying to make the rib click may increase irritation and is not needed for diagnosis.

Symptoms may come and go. They can follow a particular injury, but some people cannot identify when the problem began.

- Pain triggered by twisting, bending, reaching, coughing, or deep breathing
- A clicking, popping, or slipping feeling near the lower ribs
- Tenderness over a specific rib tip
- Pain when lying on the affected side
- Short bursts of severe pain followed by lingering soreness

Causes and risk factors

The lower ribs are joined by flexible cartilage and bands of fibrous tissue. Slipping rib syndrome develops when these attachments become unusually loose or disrupted. The rib tip can then move and irritate a nearby nerve.

Possible triggers include a blow to the chest, a fall, forceful coughing, or repeated movements that twist the trunk. Sports and work involving frequent upper-body rotation may bring on symptoms in someone whose rib attachments are already mobile.

Pregnancy may change the shape and movement of the rib cage, but the connection with slipping rib syndrome has not been clearly established. Some people naturally have more flexible joints or rib cartilage. In many cases, there is no single identifiable cause.

Slipping rib syndrome is not an infection or cancer. It is also not generally considered an inherited condition, although body structure and joint flexibility may contribute.

Diagnosis

There is no single blood test or standard scan that diagnoses slipping rib syndrome. Diagnosis is usually based on the pattern of symptoms and an examination of the lower ribs.

During the examination, a clinician may gently press along the rib margin to find the painful or unusually mobile rib. A traditional test called the hooking maneuver involves placing fingers under the rib margin and pulling upward. It may reproduce the pain or movement, but it can be uncomfortable. Gentler examination methods may also identify the affected area.

Dynamic ultrasound can help confirm the diagnosis. Unlike a still image, this scan records the ribs while you breathe, crunch your abdominal muscles, or perform another movement that normally causes symptoms. It may show one rib moving under or over another.

Standard X-rays, CT scans, and MRI scans often look normal because they are taken while the body is still. These tests may still be used to check for fractures, lung conditions, gallbladder problems, or other causes of pain.

A local anaesthetic injection around the suspected intercostal nerve may temporarily reduce the pain. This can support the diagnosis, but the response is not always conclusive.

Treatment and management

Treatment is guided by how often symptoms occur, how much they affect daily life, and whether the diagnosis is clear.

For mild or occasional symptoms, management may begin with temporarily reducing movements that repeatedly trigger the pain. Complete inactivity is rarely helpful over the long term. A gradual return to comfortable movement can prevent stiffness and loss of strength.

Heat or a wrapped cold pack may ease local discomfort. Over-the-counter pain medicines or anti-inflammatory medicines may help some people. These medicines are not suitable for everyone, so follow the product instructions and ask a pharmacist or clinician if you have other conditions, take regular medicines, or are pregnant.

Physical therapy may focus on posture, breathing, trunk control, and safe movement. It cannot always tighten a loose cartilage attachment, but it may reduce muscle strain and help you avoid movements that repeatedly irritate the area. Evidence for specific exercise programmes

is limited.

If pain continues, an intercostal nerve block may be considered. This is an injection of local anaesthetic, sometimes with an anti-inflammatory medicine, around the irritated nerve. Relief may be temporary, although some people improve for longer. Other pain procedures have been described, but evidence is less established.

Surgery may be an option when symptoms are persistent, disabling, and clearly linked to a mobile rib. Procedures include removing the unstable cartilage tip or securing the affected ribs to limit abnormal movement. Some operations combine reconstruction with plates or other stabilising material.

Published surgical studies report substantial improvement for many patients, but surgery does not guarantee permanent relief. Pain can return if movement continues at the same level or develops in a nearby rib. The best technique may differ according to the anatomy and previous treatment.

Complications

Slipping rib syndrome is usually not dangerous, but repeated pain can interfere with exercise, work, sleep, and everyday movement. Some people avoid deep breathing or activity because they expect pain. This may lead to stiffness, reduced fitness, or fear of movement.

Because routine scans can appear normal, diagnosis may take time. People may undergo several investigations before the rib movement is recognised. This can be frustrating, but normal results do not mean that the pain is imagined.

Procedures also carry risks. Nerve blocks can cause temporary numbness or soreness. Surgical risks include bleeding, infection, ongoing pain, recurrence, and injury to nearby nerves or tissues. A collapsed lung is an uncommon but recognised risk of procedures performed close to the chest cavity.

Prevention

Slipping rib syndrome cannot always be prevented. Some people have naturally flexible rib attachments, and many cases occur without a clear injury.

Using safe technique during lifting, contact sports, and repeated twisting may reduce chest wall injuries. Appropriate protective equipment can also limit direct blows during sport, although it cannot prevent every case.

If a movement repeatedly causes rib pain or clicking, reducing that activity for a time may prevent further irritation. There is not enough evidence to show that a particular exercise, brace, diet, or supplement prevents slipping rib syndrome.

Living with it and what to expect

The course differs from person to person. Some people have brief episodes that settle with activity changes and pain management. Others have symptoms that return whenever the rib is compressed or the trunk moves in a particular way.

The condition usually remains limited to the chest wall. It does not normally spread through the body or turn into a disease of the internal organs. However, the mechanical movement may continue unless the rib becomes less mobile or is stabilised.

Over months or years, you may learn which positions and activities trigger symptoms. Adapting technique can be more practical than avoiding all movement. A physical therapist may help you find ways to exercise, work, and sleep without repeatedly irritating the rib.

If conservative care is not enough, injections or surgery may be considered. Recovery after surgery takes time, and activity is usually increased in stages. Some people continue to have tenderness or nerve-related discomfort even after the slipping movement has been corrected.

Routine follow-up is appropriate if pain is stable but continues to affect sleep, exercise, or daily activities. Reassessment is also reasonable if the location or pattern changes, as a new symptom should not automatically be attributed to the rib.

When to get medical help

Arrange a routine medical appointment if you have recurring pain, clicking, or tenderness near the lower ribs. Assessment is especially useful if symptoms limit movement, disturb sleep, or continue despite simple self-care.

Seek prompt medical advice if pain follows a significant injury, or if you develop fever, visible swelling, unexplained weight loss, persistent vomiting, or worsening abdominal symptoms. These features are not typical of uncomplicated slipping rib syndrome and may need a different evaluation.

Call emergency services for new or severe chest pain accompanied by:

Do not assume sudden chest or upper abdominal pain is caused by a slipping rib, even if you have had similar pain before.

- Trouble breathing
- Fainting, severe weakness, or confusion
- Sweating, nausea, or a heavy pressure in the chest
- Pain spreading to the arm, jaw, shoulder, or upper back
- Coughing up blood
- Blue or grey lips or skin

Common questions

Can slipping rib syndrome heal on its own?

Symptoms may settle without surgery, particularly after a minor injury or a period of irritation. The rib may remain mobile even when it no longer hurts. Persistent mechanical slipping is less likely to disappear completely on its own.

Why does my rib click or pop when I move?

A click can happen when a mobile rib tip moves against nearby cartilage. Tendons and joints can also make harmless clicking sounds, so clicking alone does not confirm slipping rib syndrome.

Will slipping rib syndrome show on an X-ray?

Usually not. Standard X-rays show bones well but do not clearly show cartilage movement. Dynamic ultrasound is more useful because it can record the ribs during a movement that triggers symptoms.

Is slipping rib syndrome dangerous?

The condition itself is generally benign and does not usually harm internal organs. The important issue is making sure chest or abdominal pain is not caused by another condition that needs urgent treatment.

Can I exercise with slipping rib syndrome?

Many people can remain active by reducing movements that reliably cause sharp pain and returning to activity gradually. Repeated twisting, heavy lifting, or direct pressure may need temporary adjustment. An individual assessment can help if pain keeps limiting exercise.

Does surgery permanently cure slipping rib syndrome?

Surgery can correct the unstable rib and may provide lasting relief, but no procedure guarantees a cure. Pain can persist or return, and another rib may later become symptomatic.

Sources

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