SYMPTOM

Intercostal retractions

Intercostal retractions are inward pulling of the skin between the ribs during breathing.

WHAT IT FEELS LIKE
My skin pulls inward between my ribs when breathing

WHERE IT IS FELT
Between the ribs on either side of the chest

MOST COMMON CAUSES
Bronchiolitis, asthma, croup

WHEN IT IS URGENT
Retractions at rest, especially with fast or difficult breathing

USUALLY LASTS
Until the breathing problem improves or is treated

SEE A DOCTOR IF
Episodes resolve but recur or happen during ordinary activity

Overview

Intercostal retractions happen when the skin and soft tissue between the ribs pull inward with each breath. "Intercostal" means between the ribs.

Retractions are a sign that someone is working harder than usual to breathe. They are easiest to see in babies and young children because their chest walls are softer. However, they can occur at any age.

Intercostal retractions are a symptom, not a diagnosis. Possible causes range from common viral infections to asthma and more serious breathing problems. New retractions while resting need prompt medical assessment, especially in a baby or child.

What it may feel or look like

You may see narrow grooves forming between the ribs as the person breathes in. The movement usually repeats with each breath and may affect both sides of the chest.

Other signs of increased breathing effort can occur at the same time:

The person may describe chest tightness, breathlessness, or feeling unable to get enough air.

Babies cannot describe these feelings, so changes in feeding, alertness, crying, and skin colour are important.

Visible ribs in a naturally thin person are not necessarily retractions. With true retractions, the tissue is repeatedly drawn inward during breathing.

- Faster breathing than usual
- Widening of the nostrils
- Noisy breathing, wheezing, or grunting
- Pulling inward beneath the ribs or above the breastbone
- Difficulty speaking, crying, feeding, or drinking normally

Common causes

Common causes in babies and young children include bronchiolitis, croup, asthma, and other respiratory infections. Bronchiolitis is usually caused by a virus that inflames the smallest breathing tubes in the lungs. Croup causes swelling around the upper airway and often produces a barking cough or harsh sound when breathing in.

Pneumonia can also increase the effort needed to breathe. It may occur with fever, cough, unusual tiredness, or chest discomfort, although symptoms differ between people.

In older children and adults, asthma is a common cause of increased breathing effort. A severe flare of chronic obstructive pulmonary disease, or COPD, can cause retractions in adults.

Less common causes include problems affecting the lungs, airways, heart, muscles, or nerves. Examples include fluid around the lungs, severe muscle weakness, and conditions that limit normal chest movement.

Urgent causes include a blocked airway, a serious allergic reaction, or a rapidly worsening asthma attack. Sudden retractions after choking may mean that food or another object has entered the airway. Medical assessment is needed to identify the cause rather than relying on the appearance alone.

When to seek medical care

Seek urgent medical assessment now if retractions are new, continue while resting, or occur with fast or difficult breathing. This is particularly important for babies, young children, older adults, and people with lung or heart conditions.

Call emergency services if retractions occur with any of the following:

Do not wait for a routine appointment when retractions are present at rest. If an episode has fully resolved but keeps returning, arrange a routine appointment to discuss possible triggers and whether further assessment is needed.

- Blue, grey, or very pale lips, tongue, or face
- Pauses in breathing or an irregular breathing pattern
- Severe difficulty speaking, crying, or making sounds
- Inability to drink because of breathlessness
- Marked drowsiness, confusion, limpness, or difficulty waking
- Choking or suspected airway blockage
- Swelling of the lips or tongue, hives, or sudden breathing difficulty
- Breathing that is rapidly worsening despite a prescribed rescue plan

How the cause is found

A healthcare professional will ask when the retractions started and whether there is cough, fever, wheezing, choking, pain, allergy exposure, or a history of asthma. For a child, they may ask about feeding, wet nappies, activity, and recent infections.

They will observe the breathing rate and effort, listen to the chest, and check alertness and skin colour. A small finger or toe sensor may measure blood oxygen levels.

Tests are not always needed. Depending on the symptoms and examination, testing may include a chest X-ray, viral testing, blood tests, or tests of lung function. Sudden symptoms after choking may require specific airway assessment.

Treatment and self-care

Treatment is directed at the cause and the severity of the breathing problem. It may include oxygen, inhaled medicines that open narrowed airways, or treatment for an infection or allergic reaction. Some people need monitoring in hospital.

While arranging urgent help, keep the person upright and as calm as possible. Loosen tight clothing around the neck or chest. Avoid smoke, vaping aerosols, and strong fumes.

If there is an established asthma or allergy action plan, follow it and use prescribed rescue

medicine as directed. Do not use someone else's inhaler or delay medical care to try home remedies. Do not force food or drink when breathing is difficult.

What to expect

Retractions should ease as breathing becomes less difficult. How long this takes depends on the cause and how well it responds to treatment.

A mild viral illness may improve over several days, while asthma-related retractions may improve sooner with effective treatment. Retractions that continue, return after initial improvement, or become more pronounced need reassessment.

After recovery, a clinician may recommend follow-up if episodes recur, if asthma is suspected, or if there are ongoing problems with cough, wheezing, feeding, sleep, or exercise.

Common questions

Are intercostal retractions normal in babies?

Babies often breathe with noticeable belly movement, which can be normal. Repeated inward pulling between or beneath the ribs is not normal breathing and should be assessed promptly.

Can anxiety cause retractions?

Anxiety can make breathing feel fast or difficult, but clear inward pulling between the ribs should not be assumed to come from anxiety. Other breathing problems need to be considered.

Are retractions the same as wheezing?

No. Retractions are visible inward movements of the chest tissue. Wheezing is a high-pitched sound caused by narrowed airways. They may occur together or separately.

Should I count the breathing rate?

If it does not delay care, counting breaths for a full minute can be useful information. Do not focus on counting if the person has severe breathing difficulty or other emergency signs.

Sources

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