SYMPTOM

Flank pain

Flank pain is discomfort in either side of your back between the ribs and hip.

WHAT IT FEELS LIKE
A dull ache or sharp pain in your side

WHERE IT IS FELT
Either side of the back, between ribs and hip

MOST COMMON CAUSES
Muscle strain, back irritation, kidney stones

WHEN IT IS URGENT
Fever, vomiting, or blood in urine with flank pain

USUALLY LASTS
Hours to weeks, depending on the cause

SEE A DOCTOR IF
Pain lasting several days, recurring, or limiting normal activity

Overview

Flank pain is pain on either side of your back, below the lower ribs and above the hip. It may affect one or both sides.

This area contains muscles, nerves, lower ribs, part of the spine, and the kidneys. Pain from nearby organs can also spread, or "refer," to the flank.

Flank pain is a symptom, not a diagnosis. Causes range from muscle strain to urinary or kidney problems. The pain pattern and other symptoms help narrow down the cause.

What it may feel or look like

Flank pain may feel like a dull ache, pressure, soreness, or sharp stabbing pain. It may stay in one place or spread toward the abdomen, groin, hip, or lower back.

Muscle or joint pain often changes when you twist, bend, lift, cough, or press the area. It may begin after exercise, heavy lifting, prolonged sitting, or an awkward movement.

Kidney stone pain often comes in intense waves, may move toward the lower abdomen or groin, and can make it difficult to get comfortable.

A kidney infection can cause a steady ache or tenderness with fever, chills, nausea, or urinary symptoms such as burning, frequent urination, or cloudy urine.

Location alone cannot confirm the cause.

Common causes

Common causes include:

Less common causes include shingles, which may start as burning or sensitive skin before a blistering rash appears. Gallbladder, liver, bowel, lung, or pelvic conditions can also cause referred pain.

Urgent causes are less frequent , but include blocked urine flow with infection, serious injury, and problems affecting a major blood vessel.

- Muscle strain: An injured back or abdominal muscle can cause soreness that worsens with movement.
- Back or rib irritation: Joints, discs, nerves, or lower ribs may produce pain felt in the flank.
- Kidney stones: Hard mineral deposits can cause severe pain when they move into the tube between a kidney and bladder.
- Kidney infection: This may cause flank pain with fever and urinary symptoms and needs prompt assessment.

When to seek medical care

Arrange same-day medical care if flank pain occurs with:

These may indicate infection, blockage, or another problem needing prompt treatment.

Call emergency services or go to an emergency department if pain follows a major injury or occurs with fainting, confusion, severe weakness, cold or clammy skin, chest pain, or trouble breathing. Sudden severe flank, back, or abdominal pain with collapse also needs emergency care.

For non-urgent pain, book an appointment if it lasts more than a few days, keeps returning, wakes you from sleep, or limits normal activities. Seek assessment for unexplained weight loss, a new rash, or ongoing urinary changes.

- Fever or shaking chills

- Burning or pain when urinating
- Blood in your urine
- Repeated vomiting or trouble keeping fluids down
- Difficulty urinating or passing very little urine
- Severe pain that does not settle
- Pregnancy or possible pregnancy
- A single functioning kidney, kidney disease, or a weakened immune system

How the cause is found

A healthcare professional will ask when the pain began, whether it comes and goes, and what affects it. They may ask about exercise, injury, urinary symptoms, fever, nausea, bowel symptoms, possible pregnancy, and previous kidney stones.

The examination may include checking your temperature and pressing your abdomen, back, ribs, and flank. Movement tests may suggest whether muscles or the spine are involved.

A urine test can detect blood or infection. Blood tests may check kidney function or inflammation.

Imaging is not always needed. Depending on your symptoms, ultrasound or CT may be used to look for a stone, blockage, infection complication, or another cause. Ultrasound may be preferred when avoiding radiation is important.

Treatment and self-care

Treatment depends on the cause. Muscle strain may improve with temporary activity changes, gentle movement, and time. Kidney infections usually require prescription antibiotics like amoxicillin or doxycycline . Some kidney stones pass without treatment, while larger stones or those causing blockage or infection may need a procedure.

While arranging care for mild pain, you can:

An over-the-counter pain reliever may help, but may not be suitable if you have kidney or liver disease, stomach ulcers, take blood-thinning medicine, or are pregnant. Check the label and ask a pharmacist or healthcare professional if unsure.

Do not try to force out a suspected kidney stone by drinking excessive water. Seek care if pain is severe or you cannot keep fluids down.

- Avoid heavy lifting or movements that worsen the pain
- Stay gently active rather than remaining in bed
- Try a warm pack for possible muscle pain
- Drink normally unless you have been told to restrict fluids

What to expect

Muscle-related flank pain often improves over days to a few weeks. Pain from a small kidney stone may stop after it passes, although timing is unpredictable. Kidney infection symptoms should be reassessed if they worsen or do not begin improving after treatment starts.

Recurring flank pain needs follow-up even if each episode settles. Testing may be needed for repeated stones, urinary blockage, a back problem, or another cause.

Return for care sooner if pain changes suddenly or you develop fever, vomiting, urinary problems, weakness, or breathing difficulty.

Common questions

How can I tell kidney pain from muscle pain?

Muscle pain often changes with movement or pressure and may follow exercise or lifting. Kidney pain is usually deeper and may occur with fever, nausea, blood in the urine, or urinary changes. Because these patterns overlap, an examination or urine test may be needed.

Can a urinary tract infection cause flank pain?

A bladder infection usually causes burning, urgency, or frequent urination. Flank pain with fever or chills can mean the infection has reached a kidney and requires same-day assessment.

Does flank pain always mean a kidney stone?

No. Muscles, joints, nerves, ribs, infections, and nearby organs can all cause pain in this area.

Can gas cause pain in the flank?

Gas or constipation can cause side or abdominal discomfort. Persistent, severe, or localized flank pain should not automatically be assumed to be gas.

Sources

- MedlinePlus Medical Encyclopedia: Flank pain , US National Library of Medicine
- Kidney Stones: Symptoms and Causes , National Institute of Diabetes and Digestive and Kidney Diseases
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- Appropriateness Criteria: Acute Onset Flank Pain-Suspicion of Stone Disease , American College of Radiology