SYMPTOM

Bone pain or tenderness

Bone pain or tenderness is a deep ache or soreness felt in or directly over a bone.

WHAT IT FEELS LIKE
A deep ache or sharp soreness when pressed

WHERE IT IS FELT
One bone or a small, clearly located area

MOST COMMON CAUSES
Bruising injuries, stress fractures, nearby muscle or joint pain

WHEN IT IS URGENT
Fever with one painful, red, warm, or swollen area

USUALLY LASTS
Days after minor injury; longer with an underlying condition

SEE A DOCTOR IF
Unexplained pain lasts several days, recurs, or worsens

Overview

Bone pain is discomfort that seems to come from inside a bone. Tenderness means an area over a bone hurts when pressed or touched.

It can be hard to distinguish bone pain from pain in nearby muscles, joints, tendons, or ligaments. Bone pain often feels deep and well located. Muscle pain may cover a wider area, while joint pain is usually centred where two bones meet.

Many cases follow a bruise, fracture, or repeated strain. Less often, bone pain is related to infection, reduced bone strength, or another medical condition. The symptom alone cannot show the cause.

What it may feel or look like

Bone pain may feel like a deep, dull ache. A fracture or stress injury may cause sharper pain, especially when you put weight on the area or repeat a movement. The pain may stay in one place rather than spreading through a muscle.

Tenderness can occur even when the skin looks normal. Depending on the cause, you might

also notice swelling, bruising, warmth, redness, or difficulty using the affected limb.

Helpful details include whether the pain:

- Began after an injury or increase in activity
- Worsens with movement, weight-bearing, or pressure
- Continues at rest or wakes you from sleep
- Occurs with fever, weakness, swelling, or unexplained weight loss
- Is in one precise spot or affects several bones

Common causes

A direct blow can bruise tissues around a bone. A small fracture may follow a fall, twist, or impact even without an obvious change in the bone's shape.

Repeated loading can cause a stress fracture , a small crack or injury within a bone. This may happen after increasing running, marching, dancing, or another weight-bearing activity. Pain often begins during activity and becomes more persistent if activity continues.

Pain from a nearby muscle, tendon, or joint can also feel as though it is in the bone. Examples include tendon irritation near the shin or hip and arthritis in a nearby joint.

Less common causes include osteomalacia , or softened adult bones due to poor mineralisation. It can occur with severe or prolonged vitamin D deficiency and may cause widespread bone discomfort and muscle weakness. Osteoporosis, which reduces bone density, usually does not hurt unless a fracture occurs.

A bone infection, called osteomyelitis , may cause focused pain with warmth, redness, swelling, or fever. Bone tumours can cause persistent pain, but cancer is much less common than injury or nearby muscle and joint problems.

When to seek medical care

Seek emergency help after a serious injury if a limb looks bent or out of place, bone is visible through a wound, bleeding will not stop, or the area beyond the injury becomes pale, cold, numb, or weak. Sudden severe pain with an inability to stand or use the limb also needs urgent assessment.

Arrange same-day care if you have fever with a painful area over a bone that is red, warm, or swollen. Seek prompt care if pain is rapidly worsening, you feel seriously unwell, or a child will

not use an arm or leg.

Book a routine appointment if unexplained pain lasts several days, keeps returning, or gradually worsens. Also seek assessment if pain repeatedly wakes you, a lump or persistent swelling develops, or you have unexplained weight loss or marked tiredness.

How the cause is found

A healthcare professional will ask where the pain is, when it began, and whether an injury or activity change came first. They may ask about fever, night pain, medicines, diet, previous fractures, and conditions that affect bones.

During an examination, they may press the area and check swelling, warmth, movement, strength, sensation, and blood flow. Nearby joints and muscles may also be examined.

An X-ray can show many fractures and some bone changes. Early stress fractures may not appear on an initial X-ray, so an MRI or another scan may be needed. Blood tests can check for infection, inflammation, or vitamin and mineral problems. An unusual area on a scan may require further imaging or a small tissue sample.

Treatment and self-care

Treatment depends on the cause. A minor bruise may improve with protection from further impact and a gradual return to movement. For a recent injury, apply a wrapped cold pack for short periods to ease swelling. Do not place ice directly on the skin.

Stop activities that clearly increase focused bone pain, especially repeated jumping or running. Continuing through pain may worsen a stress injury. A clinician may recommend a supportive boot, crutches, or reduced weight-bearing if a fracture is suspected or confirmed.

Non-prescription pain medicine may help. Follow the product label, and ask a pharmacist or clinician what is suitable if you have other medical conditions, take regular medicines, or are pregnant.

Do not start high-dose vitamin D or other supplements solely because of bone pain. Testing may be needed, and excessive doses can be harmful. Infections and other underlying conditions need treatment directed at the cause.

What to expect

Pain from a minor bruise often begins to settle within several days. Fractures and stress injuries take longer and may require activity limits while the bone heals. Returning to strenuous exercise too quickly can bring the pain back.

For persistent or unexplained symptoms, the outlook depends on the cause. Follow-up may be needed to review test results, check healing, or decide whether further imaging is appropriate.

Common questions

How can I tell bone pain from muscle pain?

Bone pain is often deep and focused in one spot, while muscle pain may cover a broader area and worsen when the muscle contracts. An examination may be needed to tell the difference.

Does bone pain mean cancer?

Usually not. Injury, stress injuries, and pain from nearby tissues are more common. Persistent, worsening, or unexplained pain should still be checked.

Does osteoporosis cause bone pain?

Osteoporosis itself is usually painless. Pain may occur if a weakened bone fractures, including a compression fracture in the spine.

Can low vitamin D cause painful bones?

Severe or long-lasting deficiency can contribute to osteomalacia, which may cause bone discomfort and muscle weakness. Bone pain alone cannot show whether your vitamin D level is low.

Sources

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- American College of Radiology, "Stress (Fatigue/Insufficiency) Fracture, Including Sacrum, Excluding Other Vertebrae"
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