CONDITION

Bone spurs

Learn what bone spurs are, where they form, how they may cause pain or nerve symptoms, and how they are diagnosed and managed.

WHAT IT IS
Extra bone growth along bone edges or attachment sites

BODY SYSTEM
Bones and joints

MAIN SYMPTOMS
Joint pain, stiffness, reduced movement, numbness or weakness

WHAT CAUSES IT
Long-term tissue stress and repair

HOW IT IS DIAGNOSED
Plain X-rays

MAIN TREATMENT
Activity changes, physical therapy, pain relief

CAN IT BE CURED?
Sometimes - surgery can remove the spur

IS IT AN EMERGENCY?
Sometimes - new loss of bladder or bowel control

LONG-TERM OUTLOOK
Most cause no symptoms or serious complications

Overview

Bone spurs are extra areas of bone that develop along the edges of bones or where tendons and ligaments attach. The medical term for a spur at a joint is osteophyte . Despite the name, most bone spurs are smooth rather than sharp.

Bone spurs often form as part of the body's response to long-term joint stress. They are commonly linked with osteoarthritis, a condition in which cartilage and other joint tissues change over time. Spurs can also develop where a tendon or ligament repeatedly pulls on a bone, such as at the heel.

Many bone spurs cause no symptoms and are found by chance on an X-ray taken for another reason. A spur matters when it limits movement, rubs against nearby tissue, or reduces the space available for a nerve or the spinal cord. Symptoms and treatment therefore depend

more on the spur's location and effect than on its size alone.

Bone spurs can occur in many areas, including the spine, knees, hips, fingers, shoulders, feet, and heels. Finding a bone spur does not always explain pain in that area. A clinician usually considers the examination and the full imaging result before deciding whether a spur is responsible for symptoms.

Symptoms

A bone spur may not cause any noticeable problem. When symptoms occur, they can develop gradually and may come and go with activity.

Possible symptoms include:

Symptoms vary by location. Knee or hip osteophytes may occur with osteoarthritis and contribute to stiffness or reduced movement. Spurs around finger joints may produce firm, visible bumps.

A heel spur is a bony growth on the heel bone. Heel pain is often related to irritation of the plantar fascia, the strong band of tissue along the bottom of the foot, rather than to the spur itself. Many people have a heel spur without pain.

In the neck or lower back, osteophytes may form as part of age-related changes in the discs and joints. If these changes narrow the openings around spinal nerves, symptoms may travel into an arm or leg. Spinal cord pressure in the neck can affect balance, walking, or hand control, although these symptoms can have other causes and require medical assessment.

- Pain or aching around a joint
- Stiffness, especially after rest
- Reduced range of motion
- A hard lump near a finger or other joint
- Catching, clicking, or a feeling that a joint is blocked
- Irritation of a nearby tendon or other soft tissue
- Numbness, tingling, or weakness if a spinal nerve is compressed

Causes and risk factors

Bone spurs usually develop through a process of tissue stress and repair. In osteoarthritis, cartilage becomes damaged and the joint changes shape. The bone near the joint may become

thicker and form osteophytes as part of this remodeling process.

Age-related joint and disc changes make osteophytes more likely, but aging alone does not mean that a person will have pain. Symptoms depend on factors such as inflammation, joint alignment, nerve pressure, activity, and other health conditions.

Factors associated with bone spur formation include:

In the foot, repeated strain where the plantar fascia attaches to the heel can be associated with a heel spur. Tight calf muscles, footwear, prolonged standing, and changes in activity may contribute to heel symptoms, although they do not prove that the spur itself is painful.

Certain conditions can cause extensive bone formation around the spine or tendon and ligament attachments. One example is diffuse idiopathic skeletal hyperostosis, often shortened to DISH. Because several conditions can produce similar imaging findings, the appearance of a spur must be interpreted in context.

- Osteoarthritis
- A previous joint injury or fracture
- Long-term physical stress on a joint or tendon attachment
- Joint instability or altered alignment
- Excess body weight, which can increase load on weight-bearing joints
- A family tendency toward osteoarthritis
- Some inflammatory or bone-forming disorders

Diagnosis

A clinician may ask when symptoms began, what movements make them better or worse, and whether there is numbness, weakness, swelling, or a history of injury. The examination may assess joint movement, tenderness, strength, reflexes, walking, and sensation.

Plain X-rays usually show bone spurs clearly. They can also reveal joint-space narrowing, changes in bone shape, or other signs of osteoarthritis. Imaging findings do not always match symptom severity. A large spur may be painless, while significant pain may come from tissue that is not visible on an X-ray.

Magnetic resonance imaging, or MRI, may be considered when a clinician needs to examine nerves, the spinal cord, discs, tendons, cartilage, or other soft tissues. A computed tomography, or CT, scan gives detailed pictures of bone and may help with complex anatomy or surgical planning.

Blood tests do not diagnose an ordinary bone spur. They may be used if symptoms suggest another condition, such as inflammatory arthritis, gout, or infection.

Treatment and management

An asymptomatic bone spur usually does not need treatment. When symptoms are present, treatment focuses on improving movement, reducing pain, and addressing the underlying joint or soft-tissue problem. The goal is not always to remove the spur.

Activity changes may reduce repeated pressure without requiring complete rest. For example, changing exercise type, work technique, or footwear may help while a painful area settles. Long periods of inactivity can increase stiffness, so movement is usually adjusted rather than stopped entirely.

Physical therapy may include strengthening, flexibility work, posture or movement training, and a gradual return to activity. For spinal symptoms, therapy may help improve strength and function even though it does not remove an osteophyte. For plantar heel pain, calf and plantar fascia stretching, supportive shoes, and selected inserts may be useful.

If body weight is adding stress to a painful hip, knee, or foot, gradual weight management may improve symptoms. This is only one part of care and should be approached without blame.

Pain-relief options may include topical or oral nonsteroidal anti-inflammatory drugs, often called NSAIDs, or acetaminophen. The best choice depends on a person's other medicines and health conditions. NSAIDs like ibuprofen or naproxen can affect the stomach, kidneys, heart, and blood pressure, while excessive acetaminophen can harm the liver. A clinician or pharmacist can help review risks.

A corticosteroid injection may sometimes provide temporary relief when inflammation around a joint or nearby structure is contributing to pain. The expected benefit and risks depend on the location. Injections do not dissolve a bone spur and are not appropriate for every problem.

There is no established medicine or supplement that removes an existing osteophyte. Products claiming to dissolve spurs should be discussed with a healthcare professional before use.

Surgery may be considered when symptoms remain disabling despite appropriate nonsurgical care, when movement is mechanically blocked, or when a spur contributes to important nerve or spinal cord compression. Depending on the problem, surgery may remove a spur, create more space around a nerve, repair another structure, or replace a severely damaged joint. The decision is based on symptoms, examination findings, imaging, overall health, and likely benefits and risks.

Complications

Most bone spurs do not lead to serious complications. Possible problems depend on their location and the underlying condition.

A spur may reduce joint movement or irritate nearby tendons and other tissues. In the spine, narrowing around a nerve can cause persistent pain, numbness, or weakness. Significant pressure on the spinal cord may affect walking, balance, hand coordination, or bladder and bowel control.

Large osteophytes in the front of the neck rarely interfere with swallowing or the airway. Heel pain may alter walking and place additional stress on other parts of the foot or leg.

Surgery has its own possible complications, including infection, bleeding, stiffness, nerve injury, blood clots, or continued symptoms. The risks vary greatly by procedure and should be reviewed with the surgical team.

Follow up

Routine follow-up is appropriate when pain lasts for several weeks, returns often, limits normal activities, or does not improve with initial self-care. Arrange an assessment sooner for progressive numbness, weakness, worsening balance, unexplained swelling, or difficulty using an arm or leg.

Contact a clinician promptly if a joint becomes suddenly red, hot, and very painful, especially with fever. These findings are not typical of a simple bone spur and may indicate another condition. New or worsening trouble swallowing also deserves prompt evaluation.

Seek emergency care for:

During routine follow-up, discuss whether the imaging finding matches the symptoms, which activities are safe, and how progress will be measured. Repeat imaging is not always needed if symptoms and function are stable.

- New loss of bladder or bowel control
- Numbness around the groin, buttocks, or inner thighs
- Sudden or rapidly worsening limb weakness
- Severe difficulty walking or maintaining balance
- Trouble breathing or an inability to swallow
- Severe pain after a major injury

Sources

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