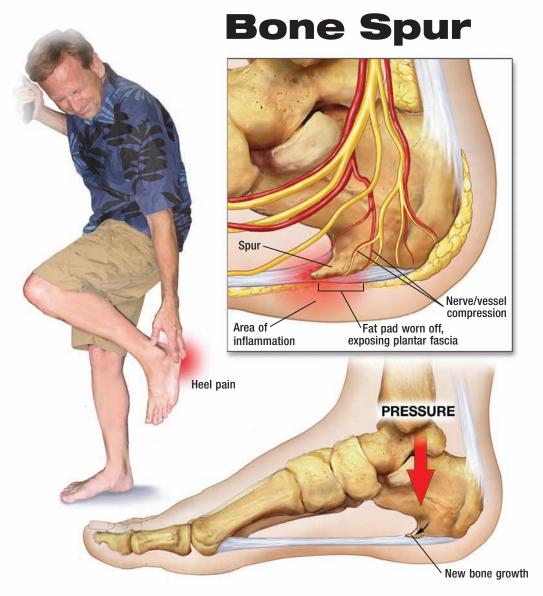
## PATIENT TEACHING AID



**Osteophyte** A bone spur is a small bony growth that forms on the edge of normal bone. In many cases, this tiny fragment of extra bone is the body's response to local inflammation of a ligament or tendon. Bone spurs are often traced to inflammation from an injury or a condition that results in chronic inflammation, such as osteoarthritis. The most common locations for formation of a bone spur are the spine, the heel of the foot, and any joint space.

Symptoms are caused by the tiny piece of bone pressing on nerves in the area. As a result, the type of symptoms experienced depends upon where the spur is situated. Bone spurs generally cause some type of pain, either at the location of the spur or in areas affected by the nerves involved. Other symptoms include numbness, swelling, tingling, and weakness of the involved joint. Sometimes, however, a bone spur causes no symptoms and is discovered only upon x-ray, MRI, or CT scan for another condition.

Treatment of a bone spur is necessary only if the spur is causing symptoms. Rest and application of an ice pack sometimes help relieve pain and inflammation. In many cases, these symptoms also may be relieved by nonsteroidal anti-inflammatory drugs such as ibuprofen or naproxen. If these methods are not successful, the use of oral or injectable corticosteroids is appropriate. If a bone spur continues to cause pain and inflammation after these medications are used, surgery to remove the bone fragment may be indicated.

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continued



### PATIENT TEACHING AID

# These Bony Growths Are Typically the Result of Inflammation

Bone spurs, small fragments of bone that form along the edge of existing bone, can form in healthy people as they age; usually, however, they are caused by inflammation from an injury or by an inflammatory disease such as osteoarthritis.

#### **Development and Symptoms**

The formation of new bone is stimulated by an injury that causes inflammation of a tendon or ligament, both of which serve as connective tissue to bone. The heel of the foot is especially subject to forming bone spurs; these are known



Osteophytes that develop on the heel of the foot (called heel spurs) are particularly common.

as *heel spurs*. The bony spikes form where the connective tissue meets the heel bone. Bone spurs also may be found around inflamed ligaments in the spine that support the vertebrae. These tiny pieces of bone can cause a great deal of pressure and pain in the neck, upper back, or lower back. Joints are another common location for the formation of bone spurs. Joints frequently affected include those in the shoulder, knee, or even finger.

Osteoarthritis is another common cause of bone spurs. As a joint affected by osteoarthritis begins to deteriorate, a bony growth forms on the edge of the bone in the joint to help keep the joint stable.

A bone spur is painless in itself, but it can cause pain and other symptoms by pressing on or irritating surrounding tissues or limiting joint movement. A bone spur can break off from the surrounding bone and float in nearby tissue or inside a joint, compounding the problem by locking the joint and worsening symptoms.

#### **Making the Diagnosis**

Often, a bone spur is found upon x-ray or other imaging tests performed to determine the cause of symptoms unrelated to the spur. It may have formed as a result of past injuries and inflammation in the area, but went unnoticed. In most cases, bone spurs that do not cause symptoms do not require treatment.

Diagnosis is made based on information from the patient's symptom history and a physical examination of the affected area. X-rays, ultrasound, CT scans, MRI, and myelograms are used to confirm the presence of a bone spur.

#### **How Bone Spurs Are Treated**

A bone spur that is causing symptoms needs to be treated. In a joint that sustains a great deal of motion, such as the shoulder or knee, full use of the joint may be limited because of the pain and restricted motion caused by the spur. In joints such as those in the neck or spine, a bone spur can press on nerves and surrounding tissue, resulting in trouble swallowing, breathing problems, numbness, tingling, pain, and weakness.

Rest and the application of cold packs can be useful for relieving symptoms caused by bone spurs. Anti-inflammatory medicines used to treat these symptoms include nonsteroidal anti-inflammatory drugs (e.g., ibuprofen or naproxen) and corticosteroids given either orally or by injection into the affected area. The goal of treatment is to reduce pain and continued injury to the joint or affected area. Physical therapy and mechanical devices such as shoe orthotics that are designed to lessen the constant irritation from the spur may be helpful. If these methods are not successful, surgical removal of the spur is indicated, depending upon the location.

If you have questions about medications used to treat the pain and inflammation associated with bone spurs, your pharmacist can help.

