

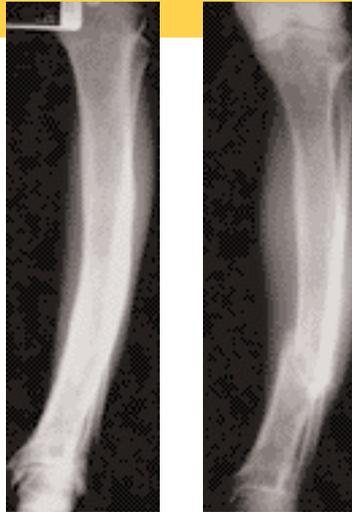


# Paget disease of bone



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Paget disease of bone is a common bone disorder, particularly in the elderly. In Paget disease, the normal regulation of bone remodelling is disrupted. Bone remodelling is a process that is responsible for repair of damaged bone and mobilisation of minerals from bone to meet the body's needs. Bone remodelling involves removal of bone from the skeleton (bone resorption) and its replacement with new bone (bone formation). Bone resorption is increased in Paget disease and the bone forming cells attempt to compensate for this increased bone resorption by making more bone. The resultant increase in bone formation results in the production of bone(s) that can be enlarged and have a disorganised structure that is weak.



## What is the cause?

The cause of Paget disease remains unknown but in about one-third of cases it appears to be hereditary. Studies show that 20–40% of family members of an affected individual may also suffer from this condition even in the absence of symptoms.

## What are the symptoms?

Many patients with Paget disease have no symptoms, however, Paget disease can cause considerable disability. The most common complaint is pain arising from the bone(s) affected by the disease. Joints adjacent to abnormal bone may become affected by arthritis. Because the bones affected by Paget disease are weak, they may either break or bend. Enlargement of affected bones can cause pressure on adjacent nerves, leading to loss of function. For example, when Paget disease affects the skull, hearing loss can occur.

## What is the treatment?

Treatment for Paget disease usually involves taking tablets called bisphosphonates for a number of months to reduce the activity of the bone resorbing cells in the affected parts of the skeleton. A single course of treatment can often abolish or at least reduce pain and will control the disease process for extended periods of time. Painkillers or anti-inflammatory medications may be used to supplement the effects of specific treatments and to treat arthritis. For those who cannot take bisphosphonate tablets, the medication can be given into a vein. The effect of treatment on the skeleton can be assessed by blood and/or urine tests and relapses can be treated before symptoms return.

Whether treatment can prevent bones bending or breaking, arthritis or other complications of Paget disease is unclear. There is evidence that treatment can improve bone structure and X-ray appearance. There are also reports that treatment can halt the progression of deafness among patients with Paget disease. It would seem logical that treatment might prevent complications of this condition, therefore, treatment may be appropriate even among those who have the disease but do not display the symptoms associated with it.

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