



# Panner Disease

Panner disease is a condition which affects the end of the humerus (upper arm bone). The lower arm has two bones, called the radius and ulna. Panner disease is the name for flattening of the end of the humerus where it joins with the radius. This area is called the capitellum. In children, bones grow at certain spots called growth plates. The growth plates are usually located at the end of the bone. In children with Panner disease, the growth plate at the end of the humerus loses its blood supply and the nearby bone softens and collapses.

Panner disease is most often seen in children, typically boys but sometimes girls, between the ages of 5 and 10. Usually their dominant arm (i.e., right arm if they are right-handed) is affected. It usually gets better if properly treated, but can result in the child having trouble straightening out their arm completely.

## Causes

It is unclear exactly why some children get Panner disease. The tendency to get Panner disease may run in families. One theory is that repeated mild injuries may simply add up to cause this problem; the finding that Panner disease tends to occur in the dominant elbow supports this idea. Panner disease usually affects children in the 5-10 year old age range and occurs more commonly in boys than in girls.

## Symptoms

Panner disease leads to elbow pain. The pain tends to start out of the blue without any specific injury to the area. The pain is usually on the outer edge of the elbow, which is near where the capitellum is located. Usually the pain will get worse with exercise and using the elbow, and better with rest. Your child may not be able to straighten-out the elbow joint completely.

## Diagnosis

Your doctor will examine your child's elbow and compare it with the other side. They will look for the specific location of pain and how the joint bends and straightens. X-rays may show the capitellum has lost its round shape and looks flat, which indicates that bone collapse has occurred. The growth plate may also look irregular or fragmented.

## Treatment

Children with Panner disease often need a short period of rest from sports that involve use of the elbow. This helps calm the irritation in the elbow. Your child's physician may recommend physical therapy, particularly if your child has difficulty bending and straightening the arm. Short-term treatment to help the symptoms of Panner disease may include ice and anti-inflammatory medicines. Most children recover with very little treatment. Occasionally, casting or splinting are used to treat children if their pain does not resolve with rest alone. Over one to two years, the bone will remodel itself and the flattened capitellum will get back its normal round shape.

## Returning to Sports & Activities

The goal is to return your child to their sport as quickly and safely as possible. If your child returns to sports or activities too soon, or pushes through pain, the injury may worsen, which could lead to pain and difficulty with sports. Your child's physician will give the go-ahead to return to sports when your child is no longer having significant pain and the elbow can bend and straighten normally.