OVERVIEW
Your child has been diagnosed with a pulled elbow. This is a common injury among preschool children. It is also called a "Nursemaid's Elbow". It is sometimes mistakenly referred to as a dislocated elbow or a dislocation or subluxation of the radial head. The injury is a result of a pull on the elbow which tears the annular ligament, which then gets trapped in the elbow joint. The injury can occur innocently from swinging a young child by the arms or pulling a child's arm while in a hurry. When this happens the child will cry for a short time after the injury, and then will stop moving the arm. The condition is easily treated and usually heals without problems. The important thing is to avoid recurrent injuries.

CAUSES
The injury occurs when a pulling force is applied to the extended upper arm. The annular ligament, which holds the radius alongside the ulna can be partially torn, which allows it to slide into the joint and get entrapped. The force apply to the arm may not seem strong, and you may not even realize it has happened. Some examples of typical situations that can produce the mechanism of force required to cause this injury are these: lifting the child by the hand, swinging the child while holding the hands, pulling arms through the sleeves of jackets, catching a child by the hand to prevent a fall, pulling a child along during a hurried occasion. Immediately after the injury occurs, the child cries in pain and will refuse to use the arm involved. Typically, the arm will be protected against the body and held slightly bent. The child will usually be calm shortly after the initial event and go about playing but without the use of the affected arm. Most commonly, your child will appear completely unchanged with the exception that he or she will no longer use the injured arm. Typically, this injury occurs between the ages of 1-4 years. As children grow, their bones become larger and more defined. So this injury is rarely seen after the age of 6 years.

DIAGNOSIS
A pulled elbow is diagnosed by history and physical exam. The doctor will attempt to obtain the history of how the injury happened. Additional questions will relate to the use of the arm, positions the arm has been held, and anything that has made the condition worse or better. The doctor will feel the arm and look for any evidence of other injuries. Any trauma other than a simple pulling on the hand, or if there is deformity, large swelling or bruising, or anything else concerning,
these might require x-rays to rule out a fracture or dislocation. If the injury was the result of a pulled to the arm and examination confirms the local pain and motion limitation without signs of a fracture, then the doctor may attempt reduction. A good response to treatment helps to confirm the diagnosis. X-rays are typically not obtained nor required unless another diagnosis, such as a fracture is suspected, or if the reduction attempts are not successful.

TREATMENT
The doctor can almost always release the annular ligament, by turning the palm upward and fully bending the elbow. Alternatively, the forearm may be fully straightened with the palm inward. Sometimes a click will be felt or heard. Your child will probably cry briefly, but then will start moving the arm better, with little or no pain. If this procedure does not produce the expected result, it may be repeated. After several attempts, if the child has not improved, x-rays may be ordered to check for fractures. If motion and pain do not improve, a temporary splint placed on the arm with close follow-up being arranged.

EXPECTED OUTCOMES
The condition is easily treated and rarely leads to long-term problems, but it can easily happen again. In the past, it was felt that it may recur in 5% of children, but recent data suggest that it may recur in slightly over 20% of children. It is important to avoid any sudden pulling of the hand or forearm of any small child to prevent this injury. This is even more important in the child who has already experienced a nursemaid elbow.

COMPLICATIONS
Complications are rare if there are no recurrences of the injury. If there are recurrent injuries, the annular ligament can be very unstable. If this occurs, it may be necessary to surgically reconstruct the ligament. While this surgery often improves the stability, it often leaves some stiffness in the elbow.

MORE INFORMATION
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK
If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.