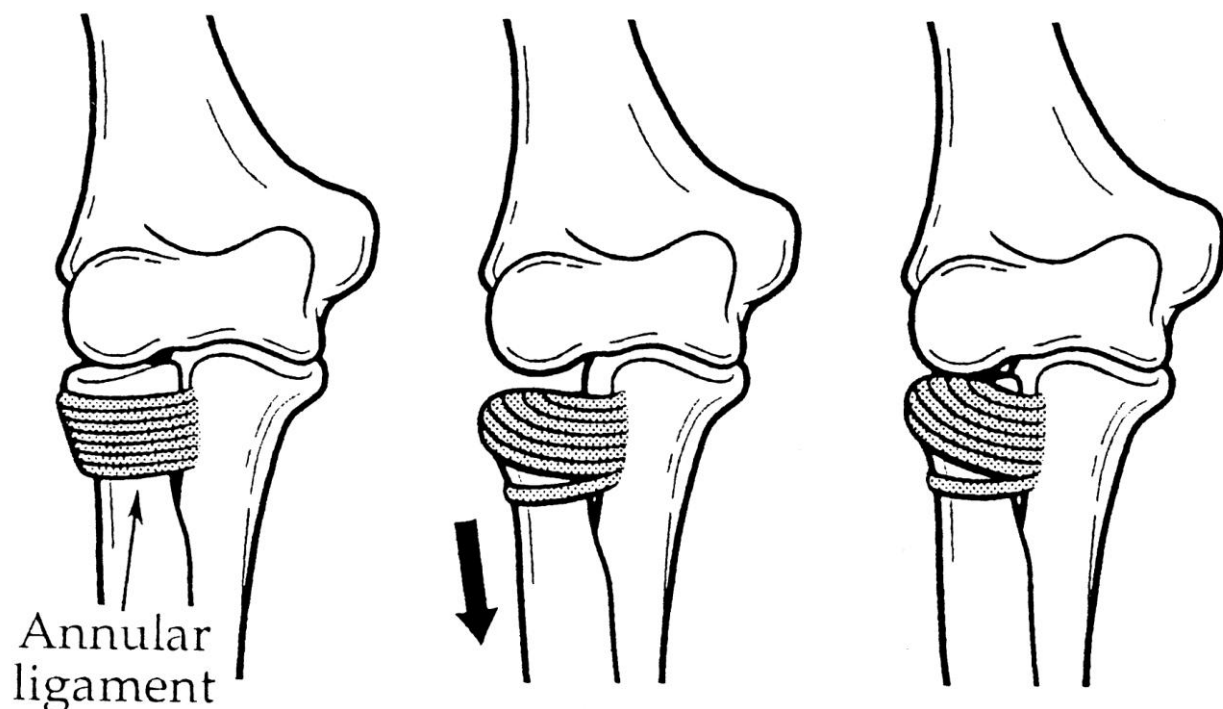


Radial head subluxation (AKA annular ligament displacement, pulled elbow and nursemaid's elbow) is a common elbow injury unique to children aged between 1 and 5 years.



The **annular ligament** encircles the proximal radial head and attaches to the anterior and posterior margins of the radial notch of the ulna. It holds the radial head in the radial notch.

**Sudden traction** on the distal radius causes a portion of the annular ligament to slip over the radial head and become **trapped in the radiohumeral joint**. After the age of five the annular ligament is much stronger and is unlikely to become displaced.



### Mechanism:

- Pulling of the forearm while in pronation and the elbow flexed.
- Child swung by forearm during play.
- Fall onto elbow.

### Examination and Diagnosis:

- The child holds the elbow close to the body in some degree of flexion and pronation.
- Mild tenderness over the anterolateral aspect of the radial head.
- Pain +++ on supination of the forearm.
- Absence of tenderness of the ulna and humerus.
- Passive range of movement is normal (though the child may be reluctant).
- **Diagnosis** is made by the presence of a **typical history and examination**.
- Perform X rays only if the history or examination are atypical.

### Reduction

- Both the **supination-flexion** and **hyperpronation** techniques can be used.
- **Supination-flexion:** supinate the forearm then flex the elbow maximally while exerting moderate pressure on the radial head with the thumb.
- **Hyperpronation:** support the elbow and exert moderate pressure on the radial head. Hyperpronate the child's forearm with the other hand.
- With both methods you may feel a click as the radial head is reduced.
- Pain should resolve immediately and the child should begin moving the arm within a few minutes when they realise it is no longer painful.
- **No further treatment is necessary.**
- Advise the responsible adult against exerting traction on the child's forearm.

