

# RADIOULNAR SYNOSTOSIS

Radioulnar synostosis is a rare condition in which the two bones of the forearm, the radius and the ulna are fused at the proximal radioulnar joint. There is restriction of the movement of rotation of radius over ulna i.e. pronation and supination of the forearm. The condition is present in both arms (bilateral) in approximately 60% of cases.

## **TYPES:**

There are 2 types of radioulnar synostosis: type 1 and type 2.

**Type 1**- the fusion involves 2-6 cm of the area between the radius and ulna bones which is closer to the elbow and the knobby end of the radius that meets the elbow is absent (radial head).

**Type 2** - The fusion is farther from the elbow and there is dislocation of the radial head.

## **SYMPTOMS:**

It depends upon the severity of the abnormality and whether it is bilateral; Children with this condition often have limited rotational movement of the forearm. Pain is usually not present until the teenage years.

**CAUSES:** A baby's arms develop between the fifth and eighth week of pregnancy. In the early stages, the radius and ulna bones are connected. These bones later separate and become individual bones. If the radius and ulna do not fully separate, the baby will be born with radioulnar synostosis. In most cases there is no known reason. About one in five children born with the condition have a family history of radioulnar synostosis.

## **DIAGNOSIS:**

Healthcare professionals typically look at a child's medical history, symptoms, physical exam and an AP and lateral view X-ray of forearm and elbow in order to make a diagnosis.

## **TREATMENT:**

**CONSERVATIVE:** In conservatively managed patients guidance to strengthen the compensatory muscles groups and joints is given.

**SURGICAL:** Surgery is more commonly performed in patients who have bilateral radioulnar synostosis and patients who have very limited movement. Surgery is not generally recommended for patients with milder deformities who have learned to compensate with the limited range of movement, by using their shoulders wrists joints.

**PHYSIOTHERAPY AFTER SURGERY:** The rotational movement at the forearm need careful and specific emphasis.

