Pulled Elbow

We've all been there, one, two, three wheeeeee and little Timmy gets swung between two adults as he walks down the path. It a memory that almost all of us have from our childhood. Unfortunately a growing number of people then have the memory of a sore elbow, or worse still a trip to the hospital.

So what is happening to little Timmy's arms.

The arm is made up of three bones; the large humerus in the upper arm and the radius and ulna in the forearm. All three of them meet at the elbow joint. Whilst the ulna has a characteristic hook at the top of it that gives you the point of your elbow, the head of the radius is really just a plain cylinder up until the age of seven.

So how does this plain cylinder stay in place? A ring of connective tissue – called the annular ligament, runs around the top of the radius and holds it onto the ulna, with a little slip of the ligament coming up to hold it in place on the end of the humerus.

Up to the age of seven the cylinder is relatively straight all the way up so if you pull too hard on the other end the whole radius can slip out of the ligament ring. It usually just slips down a bit and the top of the ring of ligament gets caught in the joint causing radial head sublaxation, or pulled elbow. It can be produced by the activity described above or even just holding onto a child's arm to save them from falling. It is more common in the child's left arm, as the adult will hold onto them with their right hand and most common between the ages of 2 and 4 – just as children start to walk around with their parents.

The sublaxation may sometimes correct itself or may require a visit to the doctors to put it back in place. In very severe cases the radial head might come away from the ring of ligament completely resulting in a dislocation.

Given that this activity holds such a place in everybody's memories do we really want to stop it?

If we are going to continue to do it, what can we do to make it safer?

The elbow joint is surrounded by the muscles of the arm – a lot of which go across the joint. If the muscles are contracted then they help protect the joint. Making it safer might just be as easy as getting Timmy to hold onto you rather than you grabbing his wrists.

