Modified L’Episcopo Tendon Surgery

A child with Erb’s palsy may have certain weakness of the shoulder muscles despite therapy. Usually the nerves that send messages to lift the shoulder up from the side and turn the arm outwards are affected. In addition, this weakness in the muscles causes the shoulder joint to grow abnormally. This can cause the ball of the shoulder to work its way out the back of the joint (socket). If return of the nerves has stopped or significantly slowed down, or the shoulder joint is unstable, then surgery may be proposed for the child.

The surgery involves two types of tendon surgery.

A tendon lengthening of at least the large chest wall muscle, pectoralis major, is performed to allow the arm and forearm to be turned outward away from the body. This may also allow the shoulder joint to become better aligned.
The second tendon surgery involves moving a tendon that normally turns the arm inward. This tendon of the latissimus dorsi and teres major muscles is moved from the inside part of the bone to the outside and back of the shoulder joint.

After surgery, the tendon surgery is allowed to heal with the child in a “Statue of Liberty” cast for 4-6 weeks.

If it can then be retrained by the therapists and parents, the moved tendon may turn the arm outward and upward. Years of therapy may be required to realize the maximum benefit of the tendon transfer. No tendon transfer can ever duplicate the weak or partially paralyzed muscle function. Full, complete active range of motion of the shoulder with the tendon lengthening and tendon transfer does not occur. Each child is examined individually for the strength and weakness of the shoulder muscles, limitation of range of motion and shoulder alignment to determine if surgery is necessary and the potential benefits.