

OBSTETRIC BRACHIAL PLEXUS PALSY

Conjoint tendon *transfer*

Moving the latissimus dorsi and teres major tendons to the back of the shoulder, so muscles that turned the arm in now help turn it out and lift it.

The problem

The external rotators (infraspinatus, teres minor) stay weak while the internal rotators recover. The child cannot turn the arm out or lift it well.

Trumpet sign

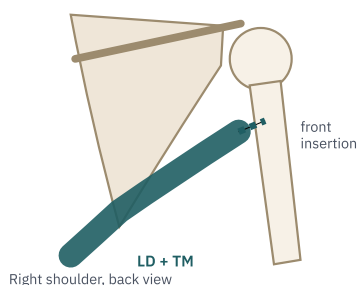
To reach the mouth, the child lifts the elbow high to the side, like playing a trumpet.

Who it suits

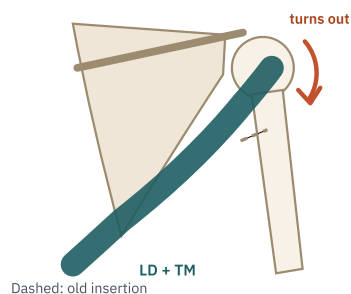
- **Weak active external rotation** after nerve recovery has plateaued, usually in early childhood.
 - **Good passive range**, or a contracture released at the same operation.
 - **Congruent or reduced joint** and **strong donor muscles**.
- Severe joint deformity or weak donors may call for a different plan.

What changes

Before: tendon on the front of the humerus



After: re-routed to the back of the cuff



Schematic only. LD: latissimus dorsi. TM: teres major. The conjoint tendon is detached near its insertion on the front of the humerus and fixed to the posterior rotator cuff or greater tuberosity.

The operation, in brief

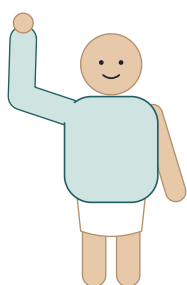
- 01 Child on the side; incision along the **back of the armpit**.
- 02 LD and TM tendons identified and **released from the front of the humerus**.
- 03 Tight structures in front released if passive rotation is limited.
- 04 Tendon **re-routed behind the humerus** and sutured to the posterior cuff under tension.
- 05 Closure, then a **shoulder spica** in abduction and external rotation.

Aims

Better active external rotation and abduction; easier hand-to-mouth and hand-to-head; less trumpet sign.

Trade-offs

Some **loss of internal rotation** (hand to back or tummy) is common. Recurrence is possible, and existing joint deformity is not reversed.



After surgery: the *shoulder spica*

A cast around the chest and arm holds the shoulder **out to the side and turned outward**, so the transferred tendon heals without being stretched. Duration is usually several weeks; the team sets the exact time and angles.

Check circulation. Fingers pink, warm and moving.

Watch the edges. Neck, armpit and waist skin daily.

Call the team if fingers are pale, blue, cold or very swollen; pain or crying will not settle; fever; a bad smell or discharge; or the cast cracks or loosens.

Once the cast is off: physiotherapy teaches the child to use the transferred muscles to turn the arm out, often through play; a splint may be used at night.

Keep it dry. Sponge baths; protect edges at nappy changes.

Nothing inside. No powders, creams or scratching tools.