

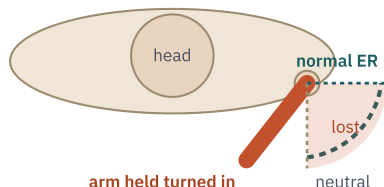
OBSTETRIC BRACHIAL PLEXUS PALSY

The subscapularis *slide*

Releasing a tight subscapularis at its origin on the scapula, so the shoulder can rotate outward again without cutting the tendon.

The problem

From above: arm at side, elbow bent 90°



Weak external rotators and a relatively strong, shortened subscapularis pull the arm into **internal rotation**. Passive external rotation (ER) in adduction is lost first. Left untreated, the humeral head can sublux posteriorly and the glenoid remodels: **glenohumeral dysplasia**.

Who it is for

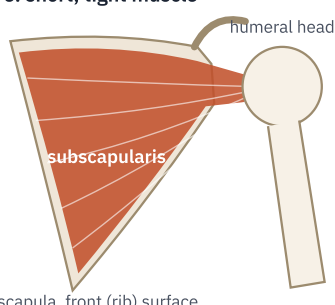
- **Internal rotation contracture:** passive ER in adduction limited or lost despite regular stretching.
- **Young child**, usually in the first years of life, while the joint can still remodel.
- **Joint congruent or reducible** on ultrasound or MRI, without severe established deformity.

Not the answer when the joint is fixed-dislocated or the glenoid is severely deformed. Open reduction, anterior release or osteotomy may be needed instead.

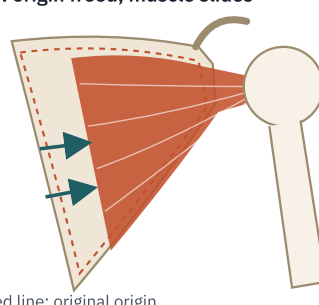
Botulinum toxin to the subscapularis is sometimes used as an alternative or adjunct. Tendon transfers for active ER come later in selected children.

What the slide does

Before: short, tight muscle



After: origin freed, muscle slides



Schematic only. The origin is elevated off the subscapular fossa and the muscle slides laterally as the arm is turned out. The tendon insertion, anterior capsule and nerve supply are left intact.

The procedure, in brief

- 01 Child positioned on the side; incision along the **lateral border of the scapula**, near the back of the armpit.
- 02 Lateral border exposed, protecting the neurovascular structures nearby.
- 03 Subscapularis origin **elevated from the front of the scapula**, working toward the medial border.
- 04 Arm gently rotated outward; the gain in passive ER is checked on the table.
- 05 Closure, then a **shoulder spica** in abduction and external rotation (page 2).



Why slide, not lengthen

- Tendon and anterior capsule are not cut.
- Small posterior incision, little anterior scarring.
- Muscle keeps its nerve supply and bulk.

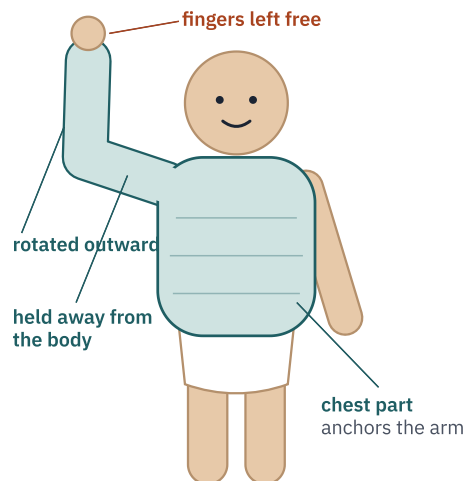
Watch for

- Recurrence of the contracture
- Over-correction: loss of internal rotation
- Later need for tendon transfer

POST-OPERATIVE CARE

Living with a *shoulder spica*

A cast around the chest and arm that holds the shoulder turned out while the released muscle heals in its new, longer position.



Schematic. The exact angles are set by the surgeon.

Why a spica

Holding the arm in **abduction and external rotation** keeps the subscapularis stretched while it re-attaches further along the scapula. Moving too early risks the contracture coming back.

The usual journey

Day 0	~4–6 wk	Removal	After
Surgery, cast applied in theatre	Cast on; duration varies by centre	Skin check, gentle wash	Physio, stretches, night splint

Tip: ask the team for a written plan with the removal date, whom to call, and the exercises to start once the cast is off.

Daily care at home

Check circulation

Fingers pink, warm and moving. Press a fingernail: colour should return within about 2 seconds.

Nothing inside

No powders, creams, toys or scratching tools. For itch, try a hairdryer on the cool setting.

Keep it dry

Sponge baths only. Protect the edges at nappy changes and meals.

Position and sleep

Support the cast arm with pillows; change position through the day.

Look at the edges

Check the skin at the neck, armpit and waist daily for redness or rubbing.

Clothes and travel

Loose, front-opening tops. Check the car seat fits with the cast on.

Call the team straight away if

- Fingers are pale, blue, cold, very swollen or not moving
- Crying or pain that usual comfort and pain relief do not settle
- Fever with no other cause
- A bad smell, wetness or discharge from under the cast
- The cast is cracked, soft, loose or too tight
- Raw, blistered skin at the edges, or something stuck inside

After the cast comes off

Physiotherapy

Daily stretches to keep the external rotation gained in surgery.

Night splint

Often used to hold the arm turned out during sleep.

Long-term review

The shoulder is followed through growth for recurrence or joint changes.