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Bwrdd Iechyd Prifysgol
Aneurin Bevan
University Health Board

Information for Patients

Exercises for Obstetric Brachial Plexus Palsy

Children's Physiotherapy Service

The aims of physiotherapy are:

- To prevent stiffness developing in the joints of the affected arm
- To encourage your baby to move their arm
- Increase your baby's awareness of their arm
- Monitor your baby's development

A physiotherapy programme may include:

- Exercises to keep your baby's muscles and joints flexible and ready to work if and when the nerve and muscle function improves
- How to move and handle your baby when caring for them
- Positions to use for sleep and play
- Advice on activities to help with your baby's development

Range of Movement Exercises

The aim of these exercises is for your baby to gain and maintain full movement of their joints.

They should be performed with your baby lying flat on a firm surface. Their changing mat is an ideal place.

- Undertake the exercises at every nappy change, at least 3 times a day
- Perform slowly and gently
- Hold for 10 seconds at the end of the range
- Repeat each exercise 5 times
- Try to do the exercises when your baby is calm and relaxed, as there is risk of damage to the muscle if the baby is resisting the exercise

It is extremely important that you do not attempt to perform these exercises until you have been shown by a physiotherapist. They will inform you which specific exercises are appropriate for your baby.

Shoulder Exercises

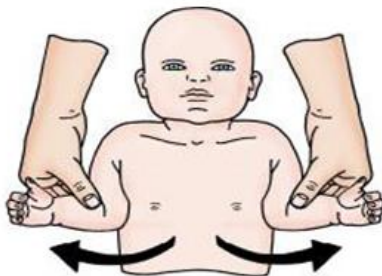
1. Shoulder Elevation



Gently hold your baby's forearm and hold their shoulder blade down firmly with the palm of your other hand. Raise their arm slowly up over their head as far as you can. Keep the arm close to their ear.

This is probably the most important exercise.

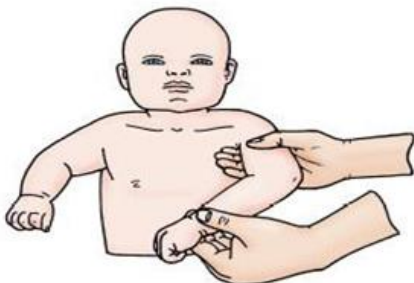
2. Lateral Rotation



Bend both your baby's elbows to 90° and keep elbows tucked into the side of your baby's body. Take their hands out to the side towards the mat.

It is important that you do both arms together, so you can compare the affected arm with the unaffected arm and to ensure your baby doesn't roll and limit their movement.

3. Posterior Capsule Stretch



This is probably the most important exercise.

Bend both your baby's elbows to 90° and keep elbows tucked into the side of your baby's body. Take their hands out to the side towards the mat.

It is important that you do both arms together, so you can compare the affected arm with the unaffected arm and to ensure your baby doesn't roll and limit their movement.

4. Shoulder Lateral Rotation with Shoulder Abducted



This exercise resembles a 'high five'. Raise your baby's arm out to shoulder level and bend their elbow to 90°. Keeping this position, rotate your baby's arm back so that the arm touches the bed.

5. Shoulder Abduction



Start with your baby's arm by their side with thumb pointing to the ceiling.

Hold their shoulder blade down firmly with the palm of one hand. Using your other hand move your baby's arm (thumb leading) along the surface away from their body up to their ear. Then return to start position.

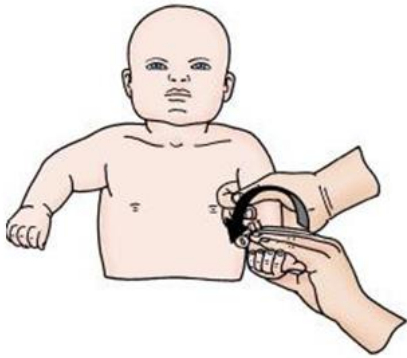
Elbow Exercises

1. Pronation and Supination

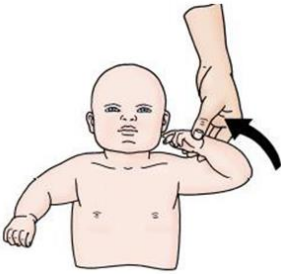
Bend your baby's elbow to 90°. Hold firmly around your baby's wrist and rotate their forearm so that their palm turns towards their face and then toward their feet.

It is important that you hold onto the

forearm and not their wrist.



2. Flexion and Extension



Hold your baby's arm above and below the elbow and gently bend and straighten their elbow fully

Wrist, Finger and Thumb Exercises

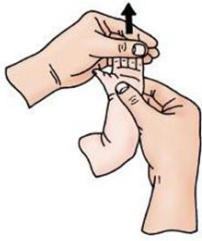
1. Wrist Extension



Hold your baby's hand and bend their wrist backwards.

2. Finger Extension

Hold your baby's finger and straighten all of their finger joints fully.



Also do this with their wrist bent backwards.

3. Thumb Extension



Hold your baby's thumb below where it joins the hand, and straighten the thumb fully, making sure that you stretch the space between their thumb and index finger.

Positioning and Handling

- If your baby's arm is very floppy it should be well supported with the hand, elbow and shoulder in the neutral position. Often a towel under the affected arm during sleep helps to keep the arm in a neutral position.
- Move your baby's arm gently for washing, dressing and skin care. It is helpful to dress the affected arm first and undress it last. When washing and drying, particular care should be taken with the affected arm.

Your physiotherapist will advise you on which playing exercises are appropriate for your child, depending on their stage of development, and any adaptations required.

These exercises may be performed as often as you like and are done in addition to the range of movement exercises.

Dependent upon the extent of your child's injury you may have to assist the affected arm with these exercises.

Reaching Exercises

Lay your baby on their side with the affected arm uppermost. You may need to support your baby in this position by



placing cushions or rolled up towels behind and in front of them. Put toys in front of them to encourage activity of the affected arm.



Place your baby on the floor and suspend or hold a toy above them. Encourage your baby to reach for the toy especially with their affected arm.

Support/Weight Bearing Exercises



Place your baby on the floor on their front with their arms forward. Initially you may need a rolled up towel under their chest to support them. Encourage them to put weight through their affected arm and then progress this exercise by encouraging them to reach for a toy with each arm.

Two Handed Exercises



Place your hands on your child's arms and encourage them to reach for a toy in front of them with both arms (assist the affected arm as necessary). You can also do clapping to encourage the use of both hands. This can be done with your child on their back, sitting in a baby seat/car seat or sitting alone.

Sensation Exercises



To aim to increase awareness and sensation of your baby's arm, stroke and massage their arm and rub the skin with various textures. Velvet or fleecy materials may be used for soft sensations and coarser materials like a bath towel for rough sensations.

Encourage your child's awareness of their arm by involving it in all activities e.g. bringing their hand to their mouth and face or clapping their hands together.

"This document is available in Welsh / Mae'r ddogfen hon ar gael yn Gymraeg"