

Patient Education



ARNOLD PALMER HOSPITAL
For Children
Supported by Arnold Palmer Medical Center Foundation

Orthopedic Center
at Arnold Palmer Hospital
83 W. Columbia St. Orlando, FL 32806
321-841-3040 f:321-841-3049

Exercises for Children with Brachial Plexus Palsy

What is the purpose of the exercises?

Your child may not move his or her shoulder, arm or hand very well because the muscles are weak. When the muscles are too weak to fully move the joints, they can become stiff. Range of motion exercises should be done frequently to help keep the muscles and joints loose. Exercises can help protect the joints and improve the chances for muscles to work well when the nerves recover.

Will the exercises be painful?

These exercises should not be painful. Your therapist will teach you how to do the exercises correctly. It's important that you follow the instructions given so that you do not hurt your child. Do not force the arm further than it will go in any exercise.

How often and how long do I need to do the exercises?

- Do ten sets of each exercise marked by your therapist at least three times a day. (More is better)
- Do all the exercises with your baby lying on his or her back if possible.
- Do all exercises gently and slowly.

Shoulder Exercises: Each shoulder exercise begins with the child's arm in the same position (starting position).

This **starting position** looks like the example on the right. Your child is lying on his or her back. The elbow is bent to 90 degrees (right angle) with palm up. Your hand is placed behind your child's shoulder (on the scapula) to give support.



Starting Position

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Exercise #1 - Shoulder External Rotation and Abduction:

There are two parts to this exercise.

Part A: Once in the starting position, you will gently and slowly move the hand out away from the body while holding the upper arm into the side and keeping the elbow bent. This will stretch the muscles in the front of the shoulder. Hold this position for 30 seconds or more.

Part B: From the ending position in Part A, raise the arm up to the side of the body simulating a “jumping jack.” Please note that if your child’s arm is tight in Part A, then Part B will not look like a jumping jack. Hold this position for 30 seconds or more.



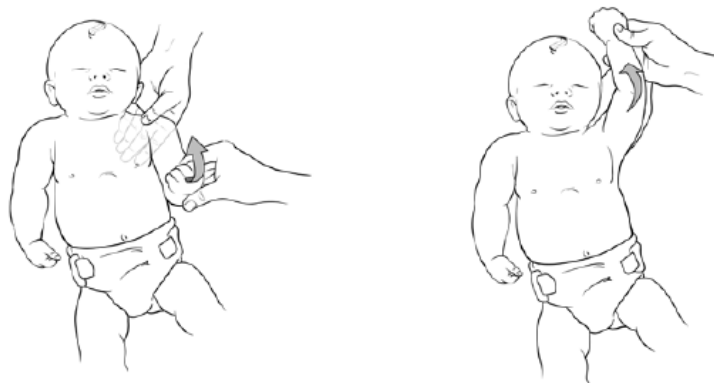
Starting Position

Part A

Part B

Exercise #2 - Shoulder Flexion:

Once in the starting position, you will gently and slowly move the arm up in front of the body. Keep the hand in the palm up position and the elbow bent throughout the motion. Hold this position for 30 seconds or more.



Starting Position

Holding Position

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Exercises for Children with Brachial Plexus Palsy (Part 2)

Elbow Exercises

Both elbow exercises begin in the same **starting position**: palm up with arm held into the side.

- **Exercise #1 - Elbow Flexion:** Once in the starting position, you will gently and slowly raise the hand and forearm together up to bend the elbow. Hold this position for 30 seconds or more.
- **Exercise #2 - Elbow Extension:** Once in the starting position, you will gently and slowly lower the hand and forearm together down to extend or straighten the elbow. Hold this position for 30 seconds or more.

Forearm Exercises

Both forearm exercises begin in the same **starting position**: elbow bent to 90 degrees and the upper arm held into the side.

- **Exercise #1 - Forearm Supination:** Once in the starting position, you will gently and slowly rotate the hand and forearm together into the palm up position. Hold this position for 30 seconds or more.
- **Exercise #2 - Forearm Pronation:** Once in the starting position, you will gently and slowly rotate the hand and forearm together into the palm down position. Hold this position for 30 seconds or more.

Wrist Exercises

Both wrist exercises are performed in the same **starting position**: elbow bent and hand in the palm down position.

- **Exercise #1 - Wrist Extension:** Once in the starting position, raise the hand back to extend the wrist. Hold this position for 30 seconds or more.
- **Exercise #2 - Wrist Flexion:** Once in the starting position, lower the hand down to flex the wrist. Hold this position for 30 seconds or more.

Finger Exercises

Both finger exercises are performed in the same **starting position**: arm held into the side.

- **Exercise #1 - Finger Flexion:** Once in the starting position, bend all the fingers into the palm. Hold this position for 30 seconds or more.
- **Exercise #2 - Finger Extension:** Once in the starting position, extend the fingers straight out. Hold this position for 30 seconds or more.