

Range of Motion Exercises:

Complete these exercises at least twice a day, hold each stretch for 5 seconds and repeat 3 times

1. Shoulder Flexion – Place your hand around your baby's shoulder joint to keep it stable. Slowly lift the arm up, just to the level of the shoulder as shown below



2. Shoulder Abduction- still supporting the shoulder, arm by baby's side, bring your baby's arm out to the side, until the arm is extending straight out from the shoulder



3. Shoulder Rotation- Keep your hand over the upper arm/shoulder to keep it steady. With the elbow bent, rotate the arm forwards and backwards. Repeat the same motion with the arm at the baby's side, elbow bent (two different positions-see pictures on next page)



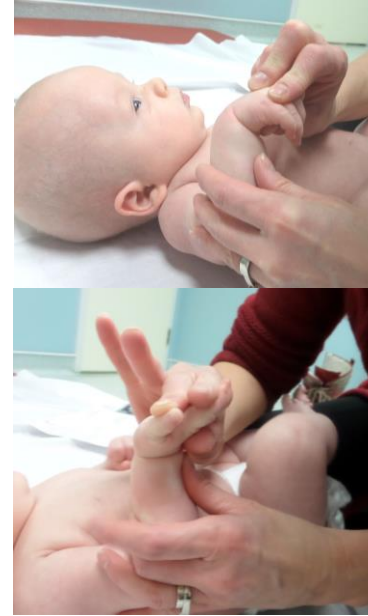
4. Elbow Flexion/Extension- with your baby's arm by his/her side, bend the elbow up and straighten it out



5. Forearm Supination- place your baby's arm by his/her side, bend the elbow to 90 degrees. Support the upper arm to keep it still, slowly turn the forearm so that the palm faces upwards.



6. Wrist Flexion/Extension- Hold your baby's forearm, grasp his/her hand with your other hand, gently bend the wrist all the way back, then forwards



7. Finger and Thumb Extension- hold your baby's hand gently. One at a time, straighten your baby's fingers and thumb. Then, straighten the fingers and thumb together, so that the whole hand is opened

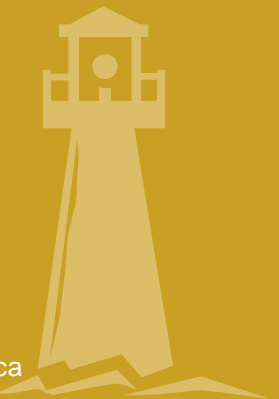


None of these exercises should cause discomfort to your baby. If you have any questions or concerns, please contact your physiotherapist

Eastern Health
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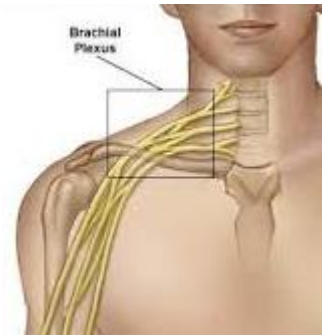


BRACHIAL PLEXUS INJURY



WHAT DOES BRACHIAL PLEXUS MEAN?

- Brachial Plexus is a name given to a group of 5 nerves which exit from the spinal cord between the bones in your neck
- These nerves are made up of thousands of fibers and they bring messages from the brain to the muscles in your arm/hand
- These messages tell the muscles in the arm/hand how to move and allows the arm to feel different sensations



HOW DO THESE NERVES BECOME INJURED?

- Injury can happen during childbirth if the baby's shoulder gets stuck after the head is delivered.
- To free the shoulder and safely deliver the baby, the doctor may have to tilt the head to the opposite side.
- This may cause the nerves to overstretch and, in some cases, they may tear

WHAT ARE THE EFFECTS OF A BRACHIAL PLEXUS INJURY?

- If the nerves are overstretched or damaged, you will notice weakness and decreased movement on that side
- The amount of weakness is different with each child and the speed of recovery is different as well
- If the nerves were only mildly stretched, your baby may recover movement quickly
- If the nerves were stretched a lot or torn, recovery may take longer as nerve healing takes place at a rate of 1 millimeter per day
- In severe cases, surgery may be needed to repair damaged nerve fibers
- If your baby requires surgery he or she will be referred to a plastic surgeon either at the IVWK in Halifax or the Hospital for Sick Kids in Toronto where the surgery will take place

WHAT DOES PHYSIOTHERAPY DO?

- Physiotherapy will check your baby's arm and neck movement on a regular basis to make sure it is improving
- He/she will assess the strength of your baby's arm muscles
- Your therapist will show you range of motion exercises for you to do to make sure your baby's arm does not get tight while you wait for the movement to return
- He/she will show you how to position your baby's arm to keep it safe
- Your therapist will show you positions for play to help the arm become stronger
- Your therapist will monitor your baby's development and refer to other health professionals as needed
- Physiotherapy is not able to make your baby's arm recover faster as the nerves need time to heal but it helps you avoid other issues such as tightness and developmental concerns



WHAT CAN YOU DO TO HELP YOUR BABY?

- Do the exercises shown to you by your physiotherapist at least twice a day (all are on the back of this handout)
- Prevent baby flathead by encouraging your baby to turn his/ her head in all directions as he/she may turn away from the injured side as he/ she will be able to get the opposite hand to his or her mouth much easier
- Touch your baby's arm and hand, massage it and let it feel different textures to help make your baby aware of that side and promote sensory development
- Play in side lying with your baby's weaker arm on top so your baby has to work against gravity to play
- Avoid lifting your baby's arms above the level of the shoulder until your physiotherapist tells you it is safe to do so