

*If you have any questions, please talk with your baby's physician or physical therapist.*

## Newborn Brachial Plexus Injury

The brachial plexus is a bundle of nerves that travel through the neck connecting the spinal cord to the arm muscles. A brachial plexus injury can cause weakness in 1 or both arms. This handout will give you information to guide you through your baby's recovery during the 1st few weeks at home.

### Symptoms

The brachial plexus nerves help a baby do arm and hand movements such as:

- Grasping
- Moving their hands to midline
- Bringing their hands to their face or mouth

With a brachial plexus injury, movement of the arm is affected due to weakness. In some cases, you may notice the affected arm at rest will rotate inward with the elbow straight and the wrist pointed away from the body.

### Follow-up care

When your baby is discharged, the care team will schedule a visit with an occupational therapist (OT) for further treatment. The OT team will guide you on how to care for this injury. This may include OT therapy and/or follow-up care at the Ann and Robert H. Lurie Children's Hospital Brachial Plexus Clinic.

For more information about the Brachial Plexus Clinic and the diagnosis and management of a brachial plexus injury, go to:

[luriechildrens.org/en/specialties-conditions/brachial-plexus-program](http://luriechildrens.org/en/specialties-conditions/brachial-plexus-program).

### Care at home

#### ***Handling your baby***

Always be sure to protect the affected arm when handling your baby.

- Make sure your baby's arm does not hang down or get caught underneath them.
- Gently swaddle your baby's arm up across their chest or stomach. This will help protect their shoulder and keep your baby's arm midline. It helps your baby self-calm themselves by letting them move their hands to their face and mouth.
- Never pull on your baby's arm or lift them by their shoulder.

### ***Exercises for your baby's arm***

Your baby's physical therapist (PT) or OT may give you specific exercises for your baby's elbow, wrist and hand. Follow the exercises as they are prescribed. Also, follow these guidelines for moving your baby's arm:

- Never try to "stretch" your baby's arm. The nerves in your baby's arm will heal better by not being stretched.
- Allow for time outside of a swaddle to let your baby move their arm. They may need some help to do this.
- Gently massage your baby's arm to get them to move it.
- Encourage your baby to hold your finger to improve their grip strength.

### ***Dressing and bathing your baby***

Clothing that opens in the front or back may be easiest to use early on while your baby's arm is healing rather than clothing that needs to be pulled over your baby's head. When dressing your baby, the affected arm should be the 1st to go in and the last to come out of their clothing.

1. Always bunch up the arm of the shirt 1st.
2. Gently put your baby's hand through the sleeve.
3. Gently guide your baby's arm into the sleeve. Be careful to guide their arm down and across their body rather than pulling their arm above their head.

When bathing your baby, be careful that the water is not too hot or too cold. Sometimes, a nerve injury can affect the baby's sense of feeling hot and cold. Test the temperature of the water yourself. While bathing your baby, gently lift their arm to wash the armpit. Do not pull on their arm.

### ***Positioning your baby***

It is important to follow these guidelines for positioning your baby.

#### ***On their belly***

Prone positioning or "tummy time" is very important for strengthening your baby's arms. It also helps their general development. Aim for a total of 30 minutes to 1 hour per day of awake tummy time. Be sure your baby's arm is positioned with the elbow bent and slightly to the side or underneath them to protect their shoulder while they put weight on their arm. Follow any directions about prone positioning that the PT or OT give you.

Different prone positions include laying your baby:

- On a flat, firm surface (or on the ground)
- Over your lap
- On your chest

**On their back**

When positioning your baby on their back, make sure their affected arm goes across the middle of their chest or stomach with their elbow slightly bent. This position gives you the chance to bond and interact with your baby. It helps your baby keep their arm midline.

**On their side**

When you put your baby on their side, put their affected arm facing up. This will protect the shoulder. This is a great position to help your baby move their hands to their mouth and face. Your baby can also play with toys for their age this way.

**If you have any questions or concerns, please talk with your care team.**