



What is Brachial Plexus Injury (BPI)?

The brachial plexus is a group of nerves. The nerves carry signals from the spinal cord to the arm and hand. These nerves help the arm and hand move. In a brachial plexus injury one or more nerves may be injured from being stretched during birth. This may happen if your baby's shoulder gets stuck on the mother's pelvis. This causes weakness of the arm or your baby may not move one arm the same as the other. The injury is noticed after birth.

What are the different kinds of injuries?

BPI can be mild to severe.

1. **Neuropraxia.** This is a mild form. A nerve trunk is damaged but the nerve fibers are not torn. Swelling may block nerve signals for a short time. The arm will not move fully.
2. **Neuroma.** A trunk is injured and has tried to heal itself. Some of the fibers are torn. They are not able to grow back to the arm muscles. Scar tissue has grown and is putting pressure on the injured nerve. The nerve is not able to move the arm muscles normally.
3. **Rupture.** A trunk is torn, but not where it attaches to the spinal cord. It cannot carry any signals to the muscles. The arm can only move a little.
4. **Avulsion.** This is the most severe form. A trunk is torn from the spinal cord. It cannot carry signals to the muscles. The arm cannot move.

How is it treated?

- Many babies with BPI will get better on their own by 1 to 2 weeks of age.
- If your baby isn't better in 1 to 2 weeks, the doctor should refer your baby to Occupational Therapy for treatment. The therapist will show you exercises to gently stretch your baby's arm. You will learn how to do activities and position your baby to strengthen the weak arm muscles. You also will learn how to protect your baby's arm while it is healing.
- If your baby cannot fully move their arm by 2 to 3 months, you should be seen in the Brachial Plexus Clinic at Children's Wisconsin. Some babies with BPI may need surgery.

How do I care for my child at home?

Dressing

- Putting clothes **on.** Put the injured arm into the sleeve of a shirt or jacket **first.**
- Taking clothes **off.** Take the injured arm out of the sleeve of a shirt or jacket **last.**

These steps will make sure there is slack or loose clothing while you are dressing your child. This may make it easier to dress them.

Picking up the baby

- **Do not** hold your baby under the arm pits.
- Pick them up from under the head/neck and bottom.
- Pick them up while holding onto their lower trunk and ribs.
- **Do not** pull your child up from the floor or chair by their arms while holding their hands.

ALERT: Call your child's doctor or therapist if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

This sheet was created to help you care for your child or family member. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment and follow-up.