Brachial Plexus Injury in Babies

Brachial plexus injury is damage to the nerves that connect from the spine to the muscles of the shoulder, arm and hand. During a difficult delivery, the neck and shoulder may be stretched causing the nerves at the brachial plexus to be pulled or torn. The good news is that most babies have no lasting effects from this injury after treatment and therapy.

About Brachial Plexus

Most often, brachial plexus injury happens with a difficult labor when stress is placed on the baby’s arm, shoulder and neck during delivery. This type of injury can happen whether the baby was born head first, breech or by cesarean section. Rarely, brachial plexus can happen if the mother has chicken pox early in the pregnancy.

Any size baby, even premature babies, can have this kind of injury. Larger babies are at greater risk as they pass through the narrow birth canal.
Your doctor may use different names for this injury, based on where your baby has weakness:

- Erb’s Palsy – weakness in the shoulder and upper arm
- Klumpke’s Palsy – weakness in the lower arm and hand
- Total, Global or Complete Palsy – weakness in the whole arm

**Signs**

Brachial plexus injury can affect babies differently. Some signs of brachial plexus injury may include:

- Weakness or loss of motion in the shoulder, arm and hand
- Poor grip in the affected arm
- Bent arm held against the body
- Less feeling in the affected arm
- Bruising or swelling in the affected arm, shoulder and neck areas
- Pain, depending on seriousness of injury
- Weak face muscles which may include a drooping eyelid

**Treatment**

For most babies, there are no long lasting effects from this injury, and it heals in several weeks. Before treatment, your baby’s doctor may run tests such as x-ray, magnetic resonance imaging (MRI) or computed tomography (CT) scan to check your baby. X-rays may be used to check for injury or fracture of the collarbone (clavicle) or upper arm (humerus). MRI and CT scans may be used to check for brachial plexus nerve damage.

To keep your baby comfortable, you may need to:

- Support the arm and give protection for the first two weeks.
- Be gentle with the injured arm. Avoid lifting under the arms for picking up or movement. Avoid pulling on the arm. Do not let the baby's arm dangle or drop.
- Be gentle during bathing and dressing. Dress the injured arm first, then the other arm. When undressing, do the uninjured arm first and then the injured arm.

- Talk with your baby’s doctor about pain medicines for comfort. Do not give medicines without checking with your baby's doctor.

- Prevent further injury by helping family and friends know your baby’s care needs. Help them to gently support and protect the injured arm.

- Your baby’s doctor or nurse will teach you how to check the injured arm’s color and skin temperature. Your baby may be able to lie on his or her injured arm without doing further harm as long as you check the area often for color and temperature.

Your baby’s doctor will discuss treatment options with you. Some babies may heal quickly and have full use of their arm. Other babies may need therapy or surgery to correct the nerve damage.

If your baby’s doctor has recommended therapy, this treatment may be used alone or after surgery to correct nerve damage. Some babies may need several months of therapy to improve muscle coordination or weakness.

If you have any questions, please ask your baby's doctor, therapist or nurse before going home.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.