
What is a brachial plexus injury?

The brachial plexus is a group of nerves that leave the spine from the neck. These nerves send messages, so your child can feel and use the muscles in their arms and hands. A brachial plexus injury is an injury to some or all of these nerves.

This happens when:

- The nerves at the base of the neck get stretched, torn or cut.
- Your child's head and neck get pushed away from their shoulder.

It can affect the nerves that control your child's:

- Arms
- Shoulders
- Elbows
- Wrists
- Hands

What causes a brachial plexus injury?

Some causes are:

- Car, motorcycle and boat accidents
- Sports injuries, like from playing football or wrestling
- Falls
- Trauma to the baby during birth
- Bullet and knife injuries

What are the possible symptoms?

Your child's symptoms depend on the injury. They may have 1 or more of these symptoms on the same side of the injury:

- Cannot control the muscles in their arm or hand
- Cannot feel their arm or hand
- Can move their arm but has trouble controlling how they move their wrist and hand
- Can move their hand but has trouble controlling how they move their shoulder or elbow

What medical tests could my child have?

Your child will need a physical exam. This will help the doctor decide on their treatment.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Brachial plexus injury, continued

Your child may also need:

- Magnetic resonance imaging (MRI)
- CT scan
- Nerve testing
- Special X-rays

What is the treatment?

Your child's treatment will include physical and occupational therapy (PT and OT). They may also need surgery if the injury is severe (very bad). Surgery may include:

- **Nerve repair and grafting** - your child's doctor repairs the damaged nerve by using part of a healthy nerve.
- **Nerve transfer** - your child's doctor connects a healthy nerve to a damaged nerve to help the muscle function better.
- **Tendon transfer** - your child's doctor uses a healthy muscle or tendon to improve functions that are lost or weakened by the injury.

When should I call the doctor?

Call the doctor if your child has:

- Constant pain in their neck and shoulders
- Weakness in their hands or arms
- Pain or weakness in both arms

Call 911 or take your child to the closest emergency department (ED) **right away** if their symptoms get worse all of a sudden.

What follow-up care does my child need?

Children's has a brachial plexus clinic for your child's follow-up care. The clinic meets 1 day every 3 months in the **Center for Advanced Pediatrics (CAP)** building. It is located at:

1400 Tullie Road NE
Atlanta, Georgia 30329

To schedule a visit or for more information, you may:

- Call 404-785-HAND (4263).
- Send an email to brachialplexusclinic@choa.org.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.