

Brachial Plexus Injury Information

Child: _____ Classroom / Grade / Activity: _____

Given To: _____ Date: _____

Checkmark All That Applies To This Child

Which arm is Injured?

☐ Right Arm

☐ Left Arm

☐ Both Arms

ACTIVITIES TO AVOID: NEVER Pick A Child up By The ARMS – NEVER Pull The ARMS

- | | | | |
|---|--------------------------------------|---|--|
| <input type="checkbox"/> Weight Bearing | <input type="checkbox"/> Tug of War | <input type="checkbox"/> Red Rover | <input type="checkbox"/> Swings |
| <input type="checkbox"/> Push Ups | <input type="checkbox"/> Monkey Bars | <input type="checkbox"/> Parallel Bars | <input type="checkbox"/> Volleyball |
| <input type="checkbox"/> Soccer | <input type="checkbox"/> Basketball | <input type="checkbox"/> Football | <input type="checkbox"/> Hockey |
| <input type="checkbox"/> Dodge Ball | <input type="checkbox"/> Kick Ball | <input type="checkbox"/> Rope Climbing | <input type="checkbox"/> Wall Climbing |
| <input type="checkbox"/> Wrestling | <input type="checkbox"/> Ladders | <input type="checkbox"/> Holding Hands For Dances, etc. | |
| <input type="checkbox"/> Parachute Play (unless teacher stands next to the child's affected side to reduce the height of the parachute) | | | |
| Other: _____ | | | |

Does child need help with activities of daily living?

- | | | | |
|--------------------------------------|---|---|--|
| <input type="checkbox"/> Dressing | <input type="checkbox"/> Changing to Boots | <input type="checkbox"/> Tying Shoes | <input type="checkbox"/> Zippering |
| <input type="checkbox"/> Buttoning | <input type="checkbox"/> Toileting | <input type="checkbox"/> Washing Hands | <input type="checkbox"/> Lunch Tray |
| <input type="checkbox"/> Milk Carton | <input type="checkbox"/> Food Packages | <input type="checkbox"/> Carrying Things | <input type="checkbox"/> Opening Doors |
| <input type="checkbox"/> Stairs | <input type="checkbox"/> Getting On/Off the Bus | <input type="checkbox"/> Playground Supervision | |
| Other: _____ | | | |

Which hand is used for writing?

☐ Dominant

☐ Non-Dominant

Does the child need special tools for school?

- | | |
|--|--|
| <input type="checkbox"/> Slant Board | <input type="checkbox"/> Pencil Grips |
| <input type="checkbox"/> Tacky Material | <input type="checkbox"/> Clip Board |
| <input type="checkbox"/> Large Crayons | <input type="checkbox"/> Adaptive Scissors |
| <input type="checkbox"/> Special Seating | <input type="checkbox"/> Electronic Keyboard |
| <input type="checkbox"/> Extra time for writing assignments or fine motor projects | |
| Other: _____ | |

Does child need a second set of books for home so that they are not carrying a heavy bag?

☐ Yes

☐ No

Other Issues That Pertain To The Child:

- | | |
|---|--|
| <input type="checkbox"/> Sensory Integration | <input type="checkbox"/> Speech |
| <input type="checkbox"/> Ear / Hearing | <input type="checkbox"/> Pulmonary / Diaphragm |
| <input type="checkbox"/> Hypotonia / Low Tone | <input type="checkbox"/> Nerve / Muscle / Joint Pain |
| <input type="checkbox"/> Apraxia | <input type="checkbox"/> Dyspraxia |
| <input type="checkbox"/> Temperature Sensitivity | <input type="checkbox"/> Decreased Body Awareness |
| <input type="checkbox"/> Fine Motor Delay | <input type="checkbox"/> Scoliosis |
| <input type="checkbox"/> Hand / Finger Biting | <input type="checkbox"/> High Risk for Sunburn |
| <input type="checkbox"/> Writing with the non-dominant hand | <input type="checkbox"/> Balance & Gait (walking) |
| <input type="checkbox"/> High Risk For Being Burned (cooking) | |

Day-to-Day Function Fluctuates—This is Normal

What works one day may not work the next. This is especially true if the child has any issues pertaining to the lungs or diaphragm. There is always some amount of loss of function if the child is on their way to becoming ill or is already ill. This is important to remember—this child should not be labeled as “**lazy**” or an “**unwilling participant**”. Loss of function may also occur during growth spurts.

Remember... just because the child can do something one day does not mean that he or she will be able to do it the next day.

Additional Information From The Parents:

1. **SCHOOL BUS / SCHOOL TRIPS:** The best way to help a child get on a bus, is to have a stepstool available. Never pull a child by their arms or lift a child up the stairs. Also, to get off a bus, the child can either use the stepstool or they can sit on the step and come down that way.

for more information about brachial plexus injuries go to
www.ubpn.org **United Brachial Plexus Network**

IMPORTANT INFORMATION FOR MEDICAL STAFF

- ➔ No blood pressure reading on the affected side—this causes pain.
- ➔ No needles of any kind on the affected arm. Vaccines should be given in the leg. The affected arm is high risk for infection and the unaffected arm should be protected from soreness or weakness.
- ➔ Careful positioning for x-rays and scans—the shoulder joint may be at high risk for dislocation and the nerves are always at risk for re-injury.
- ➔ Immediately immobilize the arm if an injury occurs. Also, the child may have decreased sensation. He or she may not know that the affected arm is seriously injured.
- ➔ Bright overhead lights may cause a headache in a child who has Horner’s Syndrome.
- ➔ Hand and/or finger biting is a common problem for children with nerve injury.

Glossary of Terms

and other useful explanations

Apraxia / Dyspraxia: Total or partial loss of the ability to perform coordinated movements or manipulate objects. With apraxia, the brain of a child who has a brachial plexus injury can “forget” that there is an arm. The child may hold an object in the affected hand and completely forget that it is there. With dyspraxia, the child may also have a decrease in body awareness, and navigating through the small spaces of a classroom may be difficult. They seem to have problems “moving in space.”

Brachial Plexus: The set of nerves that branches from the spinal column in the neck down each arm. This nerve network controls the function in the shoulder, arm, hand and fingers.

Brachial Plexus Injury: A temporary or permanent loss of movement in the arm, shoulder and hand stemming from excessive traction applied to the brachial plexus nerve network. The nerves can be stretched, ruptured (torn), or avulsed (pulled out of the spinal column) when excessive traction of 40-150 pounds is applied. The injury most commonly occurs during the birth process but may also occur due to accidents, traumas, viruses and mal-positioning during medical procedures. Abbreviations used are OBPI (obstetrical brachial plexus injuries) and TBPI (traumatic brachial plexus injuries).

Activities To Avoid: These are activities that are too risky and should be avoided for the individual with a brachial plexus injury. For example, pulling on the injured arm of a brachial plexus injured child should be avoided. This is because there is usually joint deformity and muscle atrophy, and pulling puts the individual at high risk for dislocation and further injury to the nerves. Weight bearing when a bone is malformed or malpositioned might cause additional damage as well. Osteopenia (decrease in bone density) is common with these injuries—thus, the individual is at high risk for fractures. The individual may also be at an increased risk shortly after surgery.

Ears / Hearing: An individual with a brachial plexus injury may have a smaller ear canal and a smaller ear drum than a regular child. They may be at higher risk for ear infections, which also puts them at risk for speech dysfunction.

Fine Motor Delay: This is a problem in using the hands and fingers for finer tasks. For example, a child with a brachial plexus injury may have much difficulty with tracing and cutting or doing any fine motor tasks that require two hands. Adaptive equipment may be necessary for success with fine motor. If the child is using his or her non-dominant hand because the dominant hand is paralyzed, even more difficulty is apparent. Please read this link: <http://www.linkshaender-beratung.de/english/Problem.html>

Hypotonia: Having deficient tone or tension of the muscles. This is caused by nerve damage. Hypotonia may be one of the causes of issues with balance and gait. It may be the cause of certain types of speech dysfunction. The child may have a lordosis (swayback) posturing and may also be at a higher risk for scoliosis.

Horner's Syndrome: Horner's syndrome is caused by injury to the sympathetic nerves of the face. It is characterized by a constricted pupil, drooping eyelid (ptosis) and facial dryness. Adults with Horner's Syndrome have reported that they commonly get headaches from over head lighting.

Pain: Here are some examples of the types of pain that may be experienced by an individual with a brachial plexus injury: (1) nerve pain (2) muscle pain (3) joint / arthritic pain (4) emotional pain. There are fasciculation — little ticks that cannot be controlled, and/or “lightning strikes” -- when a pain shoots down the arm quickly. The pain can range from tolerable to intolerable with no consistent treatment available.

Pulmonary Dysfunction: If the C4 nerve in the brachial plexus nerve network is injured, there may be diaphragm paralysis or weakness. This issue may go undiagnosed because it may be hidden within the child's behavior. The child may seem extra tired, may not have a lot of strength or endurance and may lose function often. A physician may not “hear” any problems in the lungs, but if a pulmonary function test is administered, a reduction in pulmonary function is seen.

Sensory Integration Dysfunction: Sensory Integration is defined as the neurological process that organizes sensation from one's own body and the environment, thus making it possible to use the body effectively within the environment. Those children who have dysfunction in this area may react negatively to certain sounds, sights, types of clothing (such as socks), crowds, etc. What may look to be purely behavioral may not be. Read “**The Out of Sync Child**” by Carol Kranowitz for detailed explanation and examples.

Temperature Sensitivity: A person who has a brachial plexus injury may have also injured sensory nerves, which affects how the arm reacts to excessively hot and cold temperatures. In the cold, the arm might turn purple and be excessively cold. In the heat, the arm may get very red, splotchy or rashy and get very hot. On the other side, the person with a brachial plexus injury may not feel any temperature at all and they are at risk for burning their arms or freezing their arms without realizing it. The arm is also at high risk for sunburn. It needs to be protected with creams and clothing when going out in the sun. Excessive exposure to the hot sun should be avoided.

This document was written from living experience by a parent who is not a medical professional, whose child has a brachial plexus injury. This document is for educational purposes only. Always seek medical advice from medical professionals. Thankfully, there are many brachial plexus specialists in the world today.