



Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

Patient and Family Education

Brachial Plexus Palsy

A Therapy Guide for Your Baby



Brachial Plexus Palsy: A Therapy Guide for Your Baby

Brachial Plexus Palsy is caused by trauma to the nerves of the arm. This trauma may have caused muscle weakness, lack of movement, and/or lack of feeling in your baby's arm. Your child will most likely improve as they get older. How much the arm improves depends on the type of injury and the treatment your child receives.

Physical therapy (PT) or occupational therapy (OT) can help your baby best use their affected arm. You play an important role in your child's therapy. Therapists can work with you to promote movement, encourage motor skills and maintain motion in the arm. The activities in this booklet should be performed under the guidance of a physical or occupational therapist.

Range of motion

The stretches described and pictured below should be done when your baby is in a supported position. These stretches will maintain your child's range of motion and prevent the joints from becoming permanently stiff.

Do the stretches 3 to 5 times each day. You can do the stretches as part of your baby's daily activities. Think of stretching the arm while your baby is feeding or during diaper changes. Gently, move your baby's arm as far as you can without resistance or pain.

- ☑ **Shoulder External Rotation:** These 2 stretches are the most important for your baby. They will help keep your baby's shoulder flexible. If the shoulder becomes tight, the joint can dislocate. Performing these stretches correctly will not hurt your baby or their shoulder. In fact, doing these stretches is the best way to keep the shoulder joint healthy and prevent dislocation.

Do both of these stretches 3 to 5 times each day.



Position your child's arm at their side with the elbow bent at 90 degrees and the palm of the hand facing up. Place one hand behind your baby's shoulder, and your other hand at their elbow. Using your hand at the elbow, rotate your baby's arm away from their body. Be sure to keep the upper arm touching the body during the stretch. Hold for a few seconds.



Bring the arm straight out to the side with the elbow bent. Slowly turn the arm so that the palm is facing up and hold for a few seconds.

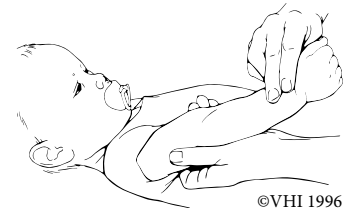
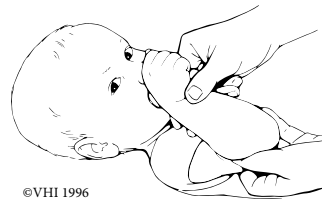
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Also, do these other stretches marked with a check 3 to 5 times each day:

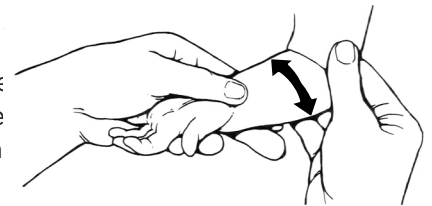
- Shoulder flexion: Slowly lift the arm forward and over the head. Hold for a few seconds and then bring the arm back down.



- Elbow flexion and extension: Bend your baby's elbow. Bring the hand up to the mouth, keep the palm facing up. Hold for a few seconds and then completely straighten the elbow. Hold the straightened position for a few seconds.



- Forearm supination: Support your baby's elbow at 90 degree with one hand, and hold your baby's forearm just above the wrist with your other hand. Gently turn their forearm so that their palm is facing upward. Hold this position briefly. Be careful not to twist your baby's wrist.



- Wrist and finger extension: Gently open your baby's fingers and thumb so the hand is open and flat. Move the wrist up, keep the fingers straight. Hold for a few seconds.



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- Wrist side to side movement (radial and ulnar deviation): Gently move your baby's wrist sideways toward the thumb and then toward the little finger. Hold each position briefly.

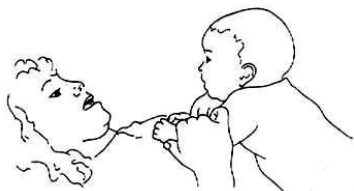
Positioning

Your baby may not have feeling in their arm. Without this feeling they may not be aware of where their arm is when lying or rolling. They may not be able to move the arm into the best position on their own. You may need to help position your baby's arm safely throughout the day. Do not pin or wrap your baby's arm close to their body. This may cause arm tightness that may not stretch out later.

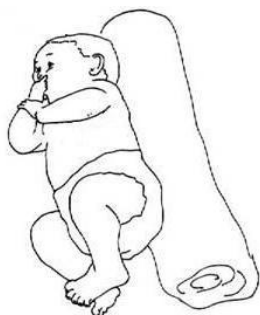
0 to 3 months

Your baby needs to spend time in a variety of positions to help with development. When awake, position your baby on their back, tummy, and both sides. Make sure your child does not rest or sleep with their head turned the same way each time. This position may lead to tightness on one side of your child's neck or changes in the shape of their head.

Back: Encourage your baby to turn their head to both sides to look at toys or pictures. Position yourself on the side of your baby's affected arm so that they will turn to that side to look at you.



Tummy: It is important for your baby to spend awake time on their tummy many times during the day. Take special care to protect the affected arm by keeping the arm close to their body. Your baby may tolerate this position better on a small roll or wedge. Even brief periods of tummy time are helpful.



Supported sidelying: Your baby should spend time lying on both sides. You may use a roll or pillow behind them for support. Bring both hands together in front. Make sure the affected arm is not positioned underneath the body when lying on that side.

Carrying and feeding: When you pick up your baby, provide support behind the shoulders. Bring the affected arm forward and keep it supported. The arm should not hang or fall behind the body. Do not lift your baby by the arms.



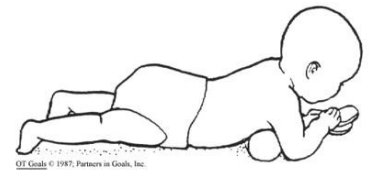
Car seat and swing: Use rolled towels along the side of your baby's body to help support the affected arm.



3 to 6 months

If your baby is not moving their affected arm, continue to provide support. Review the positioning section on pages 4 and 5.

Have your child play on their tummy several times each day. Your baby's elbows should be in front of their shoulders. Use a small rolled towel under their chest and behind their elbows to help support the affected arm. This position will help your baby strengthen their neck and shoulders and experience some weight bearing through their affected arm.



Playtime

The nerves in your baby's arm provide sensation or feeling to the arm. It is hard to tell exactly what your baby is feeling with their affected arm. At first, your baby may not show awareness of the affected arm.

Playtime will help your baby become more aware of their affected arm. It can provide an opportunity for the recovering arm to become used to feeling touch. As the muscles become stronger, you also want to encourage your baby to use their affected arm the best they can during play. Here are some ways you can help your baby during playtime.

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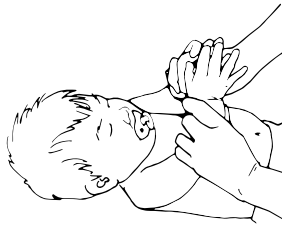
0 to 3 months

Massage



Pediatric Massage, Therapy Builders

Massage is a nice way to help your baby of any age become more aware of their affected arm. Use slow and gentle strokes to massage both arms. Place your young baby in a supported position on their back. You may support their affected arm with a rolled towel behind the shoulder.



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Help your baby become more aware of their affected side. Bring their arm up in front of their face and stroke it, kiss it, or clap their hands together. At 2 to 3 months of age, you can start placing small rattles or toys into their affected hand. Bath time is a nice opportunity to touch and play with both arms. Use a soft cloth to wash both of your baby's arms. After bath time, dry with a towel and then apply lotion to both arms.

3 to 6 months

Continue to provide touch and massage to both of your baby's arms. See the massage section above for more information.

As your baby grows and is more active, it is important to help them use their affected arm as much as possible. Provide lightweight toys they can reach for, bat, move, grasp and explore.

6 to 12 months

Your baby may still enjoy massage of their affected arm and hand. Review the massage section above. Many babies begin to enjoy play activities that will provide touch sensation to the affected arm.



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Some examples are playing with pudding on a high chair tray; and playing in the bath with a sponge, washcloth, or bath foam.

As your baby grows, help them to use their affected arm as much as possible and in many different ways throughout the day. Make a game to encourage active reaching. Use songs with hand motions to engage your baby and gain their cooperation. Help them reach forward to a toy or mirror to use and stretch the affected arm.

If your baby is having trouble learning to roll, crawl or come into standing, your therapist will give you some ideas to help them.

Dressing

Put clothes on the affected arm first. When you undress your baby, take clothes off the affected arm last. This will prevent overstretching of your baby’s arm.

Splinting

Sometimes a hand, elbow or shoulder splint for the affected arm is recommended. A splint is used to support your baby’s joints, maintain range of motion, and improve function. Your therapist will make the splint and give you instructions for wear and care if needed.

What can I do to help my baby if surgery has been recommended?

If your baby needs surgery, then your therapist will give you positioning and range of motion instructions to be done after the surgery.

Additional suggestions to help your baby

For More Information

- Brachial Plexus Clinic Scheduling
206-987-2759
- Therapy Scheduling
206-987-2113

Free Interpreter Services

- In the hospital, ask your child's nurse.
- From outside the hospital, call the toll-free Family Interpreting Line 1-866-583-1527. Tell the interpreter the name or extension you need.



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206-987-2000
1-866-987-2000
(Toll-free for business use only)
1-866-583-1527 (Family Interpreting Line)

www.seattlechildrens.org

Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201.

This handbook has been reviewed by clinical staff at Seattle Children's. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's healthcare provider.

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