

## Erb's Palsy

From **birth to three years old** what can I expect?

<p>What kind of professionals might my child need for his/her first few years of life?</p>	<p><b>Pediatricians</b> will help to manage your child's care consistently. Refer to their expertise in times of transition or change as well.</p> <p><b>Orthopedists</b> will be important when addressing musculoskeletal issues.</p> <p><b>Neurologist</b> may be necessary to evaluate</p> <p><b>Physical Therapist:</b> see "therapies" for a complete description.</p>
<p>What conditions may affect my child?</p>	<p>Erb's palsy is a localized condition. All problems will relate to the function of the affected arm.</p> <ul style="list-style-type: none"> <li>• <b>Pain</b> may become an issue for your child. The involvement of the nerve and your child's body attempting to heal the condition can cause a great deal of pain.<sup>1</sup></li> <li>• <b>Loss of feeling</b> in your child's limb can become a significant issue. If he or she cannot feel that limb there will be a failure to remove it from a hot surface, an uncomfortable position, etc. <sup>1</sup></li> <li>• <b>Muscle loss</b> occurs because your child is not using the affected arm.<sup>1</sup></li> <li>• <b>Stiffness of joints</b> is a concern because of the lack of movement in the region.</li> <li>• <b>Posterior shoulder dislocation</b> is common due to the weakening of surrounding muscles. <sup>4</sup></li> </ul>
<p>What kind of surgeries will my child need? When?</p>	<p>Surgery is only needed in extreme cases of Erb's Palsy (in which healing does not occur naturally for the child).</p> <p>A few possible surgeries that may be suggested:</p> <p><b>Nerve Graft:</b> A procedure where the damaged nerve is removed and replaced with a nerve taken from another part of your body.<sup>1</sup></p> <p><b>Nerve Transfer:</b> When a muscle group is not receiving input from nerve, the surgeon takes a nearby nerve, splits away some of its fibers and places those fibers close to the injured nerve and muscle. Your body can then learn to use these new fibers in a different way, allowing them to activate the previously unused muscles.<sup>1</sup></p> <p><b>Tendon Transfers:</b> This surgery may be necessary if your child does not recover function and experiences muscle contractures (where your muscle contracts without you wanting it to). A study shows that, if appropriate, this surgery can help to facilitate full range of motion and a more appropriate alignment of the shoulder joint.<sup>2</sup></p>

<p>What kind of therapies are available?</p>	<p><b>Physical therapy</b> – Often, children with Erb’s Palsy will need to have a physical therapy consultation. It is important to begin a physical therapy program immediately to help keep the arm as mobile as possible.</p> <p><b>Occupational therapy</b> – OT may also be beneficial to your child, helping him or her improve functional skills and daily activities such as dressing, eating, and playing.</p> <p><b>Splinting</b>- Often used to keep the arm in a desirable position. Splinting of the hand can also be useful in some conditions to both keep it in a functional position as well as protecting it from the environment (due to loss of feeling in the effected arm).<sup>3</sup></p> <p><b>Neuromuscular electrical stimulation</b> is sometimes used for children with Erb’s Palsy. It is a pulsating current that is meant to stimulate the muscles. The idea is that this stimulation increases blood flow to the area which will hopefully increase the healing process. There has been little solid research to prove or disprove its effectiveness for children with nerve injury. <sup>4</sup></p> <p><b>Botox therapy</b> is also being used to improve flexibility of shoulder muscles. Often, muscles for your child will become very tight and inhibit movement. By injecting Botox, those muscles that are overworking will be weakened temporarily so that the other muscles can be strengthened. There is little research for this therapy. <sup>4</sup></p>
<p>What else can I do?</p>	<p>-Make sure your child is eating well and getting the nutrients he or she needs in order to aid the healing process.</p> <p>-Maintain high activity levels, especially of the affected arm. It is important to keep it mobile, consult your doctor or physical therapist to learn what exercises to do with your child.</p>
<p>What expectations should I have for my child’s physical development?</p>	<p>Most children are able to recover within the first year of life. At this point, be certain to help your child engage both hands in play. If your child does continue to have problems or gets worse do not hesitate to contact your doctor and take action. Be sure to take note if your child stops using his or her arm.</p>

For **ages 3-12**, continue to refer to the above chart, and consider the following.

<p>What if my child doesn’t recover</p>	<p>Most children affected by Erb’s Palsy do have a nearly full recovery of function. If your child does not, it is important to work with your doctor and therapists to</p>
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before 3 years old?	determine the best course of action.
Will my child need surgery?	Often, when recovery is not complete by this age, surgery will be a more appropriate option. Possible surgeries include:  <b>Tendon Transfers</b> (see above)  <b>Osteotomies:</b> Over time, if your child's shoulder is not functioning properly, the dysfunction will often cause changes in the bone. These changes need to be fixed before full function can be recovered. Consult your doctor to discuss if this approach may be appropriate for your child. <sup>4</sup>
What will we do about school?	Your child should be able to participate fully in the school experience. If assistive devices or therapy should be needed, the appropriate arrangements should be made with your school. If assistance is appropriate for your child, you will develop a plan with teachers and other professionals to decide how best to facilitate learning for your child. This is known as an Individualized Education Plan (IEP), and is a way to continually assess your child's needs at school.  More information can be found at the following: <a href="#">US Department of Education</a>

Now that my child has reached **the teenage years (14-18)**, is there anything to worry about?

Will puberty affect my child differently?	Your child should make the transition with little problem. If he or she begins to experience pain or any other symptoms be sure to consult his or her doctor. Otherwise, the transition will be the same as all other individuals.
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What about my child's **adult life (19 and beyond)**?

Will my child continue to have problems?	Your child should have no problem transitioning to adult life. Any new symptoms should be reported to a physician, but your child should not see any new challenges as he or she enters adulthood.
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1. Mayo Clinic Staff. Brachial Plexus Injury. Mayo Clinic. Feb 24, 2011. Available at: [www.mayoclinic.com/health/brachial-plexus-injury/DS00897/DSECTION=treatments-and-drugs](http://www.mayoclinic.com/health/brachial-plexus-injury/DS00897/DSECTION=treatments-and-drugs). Accessed on April 2, 2011.

2. Pearl, M. Arthroscopic release and latissimus dorsi transfer for shoulder internal rotation contractures and glenohumeral deformity secondary to brachial plexus birth palsy. *Journal of Bone and Joint Surgery*. 2006; 88: 564-574.

3. Erb's Palsy Treatment. Cerebral Palsy Source. 2005. Available at: [http://www.cerebralpalsysource.com/Treatment\\_and\\_Therapy/erbs\\_treatment/index.html](http://www.cerebralpalsysource.com/Treatment_and_Therapy/erbs_treatment/index.html). Accessed on April 2, 2011.

4. Neonatal Brachial Plexus Palsy. Medscape Reference. 2009. Available at: <http://emedicine.medscape.com/article/317057-overview>. Accessed on: April 10, 2011.