

What are the risks of untreated head deformities?

The exact effects of untreated plagiocephaly are unknown although medical evidence suggests that plagiocephaly should not be considered purely cosmetic. Some of the concerns include: continued skull asymmetry and/or disproportion, facial asymmetry, problems from jaw misalignment presenting in infancy or later, disruptions to visual fields, difficulty fitting eyewear, poorly fitting safety helmets (e.g. bicycle, football, other sports), and neck muscle asymmetry.

Is the St. Louis Band covered by Insurance?

Insurance companies classify cranial remolding orthoses (or cranial bands) under durable medical equipment (DME). Check with your insurance company to determine if your policy includes this coverage. Most coverage policies state specific requirements for coverage such as degree of severity and focused repositioning programs attempted for specific periods of time. O&P Lab Cranial Care specialists contract with most insurance companies, including Medicaid, to minimize out-of-pocket expenses for parents and caregivers.



What does success look like?

The O&P Lab Cranial Care specialists will document your baby's head shape throughout the treatment program with ongoing measurements and clinical pictures. Periodically, the clinical notes will be compared to the original measurements and pictures to see what progress has been made. When corrections have been made, your Cranial Care specialists will obtain a final end of treatment scan and discuss these changes and discontinuing cranial treatment with the rest of your medical team.

What to do?

If you have concerns—talk to your pediatrician about your baby's head shape! The American Academy of Pediatrics recommends that pediatricians evaluate the baby's head at each well child visit, and discuss repositioning techniques and tummy time activities with families. As mentioned, you may be referred to a pediatric physical therapist for further stretching or strengthening program or to an O&P Lab Cranial Care specialist to document the baby's head shape. These details will be reviewed to show progress in positive head shape changes or establish the need for cranial remolding treatment. Keep in mind that some of these little heads are just resistant to change in spite of best efforts. Sometimes nature just needs a nudge and that's where your St. Louis Band STARband program will come in!



**STARband—
the most prescribed
cranial remolding orthosis
in the world**



Orthotic & Prosthetic Lab, Inc.

BJC PATIENT CARE CENTER

Center for Advanced Medicine
4921 Parkview Place, #13D
St. Louis, MO 63110

Phone: (314) 361-6789

Fax: (314) 361-6468

CREVE COEUR OFFICE

555 North New Ballas Rd, 175A
St. Louis, MO 63141

For an appointment, please call Michelle

Phone: (314) 475-3621

Fax: (314) 567-3792

michellek@oandplabinc.com

SSM HEALTH CARDINAL GLENNON CHILDREN'S HOSPITAL

1465 S Grand Blvd,
St. Louis, MO 63104

Phone: (314) 968-8555

Fax: (888) 696-2960

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When nature needs a nudge.™

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PARENTS' GUIDE



Have you noticed that the shape of your baby's head

looks different from other babies or maybe even different from your other children? Are there areas of concern such as flat spots, unevenness or differences between the right and left sides? The information provided here is to educate you and your family on infant head shapes, to ease concerns, and to provide you with a plan of action to improve the overall shape of your baby's head.

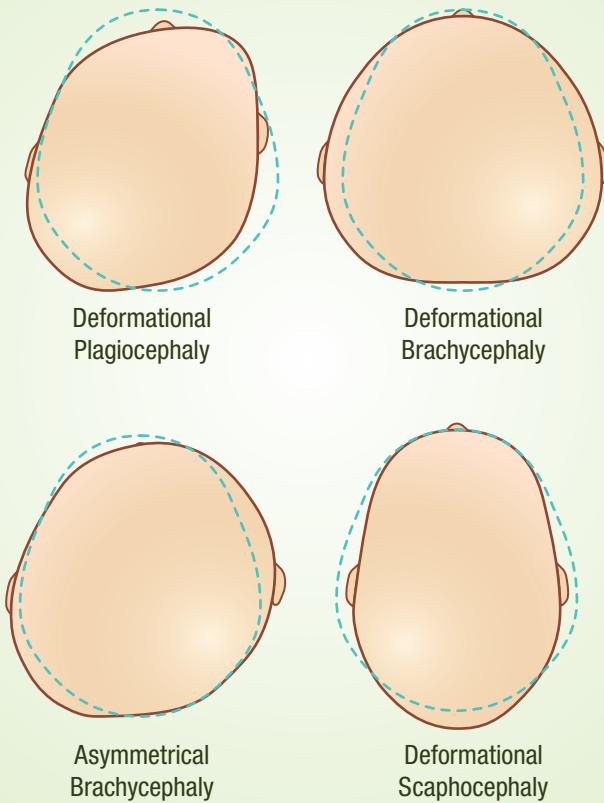


What is deformational plagiocephaly?

Deformational plagiocephaly—also known as flat head syndrome (FHS)—is an abnormal shape of the baby's head that results from many factors—these factors may be present before and/or after birth. Parents, family members, friends and other health care professionals may notice the head to be asymmetrical or disproportional rather than oblong and round. These altered head shapes are very common and studies estimate that one in 10 babies has a misshapen head that requires further assessment and treatment.

What causes deformational plagiocephaly?

Deformational head shapes are caused by many factors such as a restrictive in utero environment, prematurity and delayed development, neck muscle weakness or imbalance, back sleeping, low tone, assisted birth delivery methods, infant carriers and infant safety devices. Even the process of natural childbirth results in distortions of the very soft infant skull. After birth, many children have preferred head and trunk postures where they are content to lay and sleep with limited head movement. By six to eight weeks of age, normal physical development and movement should help to change the appearance of the head towards a more normal shape. If the shape does not improve, then it's a good topic to bring up and discuss at the next visit with your pediatrician.



What head shapes require further assessments and actions?

Take a look at the four drawings shown here. Each misshapen head has a dotted line overlay that represents a normal head shape. Deformational plagiocephaly is the most common and the primary problem is asymmetry. Deformational brachycephaly refers to a head with significant flattening in the back which results in a wider than average head. Asymmetrical brachycephaly presents with significant changes to both symmetry and proportion. Deformational scaphocephaly is not as common, but will be identified as a very long and narrow head shape.

If your child presents with any one of these four common head shapes, it's a good idea to have a discussion with your pediatrician. In the first three to four months of age, the first course of action is repositioning and increased tummy time, and you may also be referred to a therapist for a stretching and strengthening program.

Repositioning and tummy time?

Not every baby needs a headband! O&P Lab Cranial Care specialists encourage conservative treatment options such as repositioning and tummy time. These efforts are most effective in very young infants up to about four months of age, and can reduce the severity and improve the overall head shape in some cases. Repositioning and tummy time can be discussed with your pediatrician and/or therapist. Referrals may be made to the Cranial Care specialist for a cranial scan or anthropometric measurements to document the current head shape. Over time, another scan or measurement series will compare the changes and determine if a headband (i.e., orthosis) is needed.

Will my baby need physical therapy?

Many babies are born with neck and trunk tightness or weakness that creates positions of comfort or preferred postures. Torticollis is another common condition that is caused by an imbalance of the neck muscles, and prevents full turning of the head to both sides. Preferred postures may lead to neck tightness and may increase the time spent in these positions. These situations may be resistant to repositioning and cause the infant some distress during tummy time. It is important to understand that flattening of the head, preferred postures, neck muscle imbalance and resistance to tummy time and repositioning should all be discussed with your pediatrician. Pediatricians and/or therapists can monitor changes in your child's head shape and make recommendations for an orthotic evaluation as needed.



What is the St. Louis Band by STARband?

The STARband is the most prescribed FDA-cleared cranial remolding orthosis in the world, used to treat more than 600,000 babies since 2001. There are several different STAR® family designs, and the St. Louis Band is the most common band prescribed in the St. Louis area. It is an overlap side-opening band with a thin ¼" soft foam liner and hook-and-loop closure. The St. Louis Band is manufactured by Orthomerica for exclusive use by O&P Labs Cranial Care specialist. Each St. Louis Band is custom made for each child to provide a gentle hug and contact over the rounded areas and provide room for growth over the flattened areas of the skull. Full coverage means full correction! **Over 98% of infants with deformational plagiocephaly, brachycephaly and scaphocephaly require only one headband to complete treatment, saving families and insurance companies the unnecessary expense of additional headbands.**



What should I expect during the cranial treatment program?

There are many different aspects of the cranial care program provided by O&P Lab Cranial Care specialists and a few will be highlighted here:

Initial office visit—Your Cranial Care specialists will conduct a thorough evaluation of your baby, gather medical history, take clinical photographs/scan/measurements, and outline the entire headband program.

STAR family of designs—Different babies benefit from different headband designs. Your cranial team will determine which design is best for your baby and family needs. Different materials are used for different patients, but all work in the same manner to encourage growth in the correct dimensions.

- The weight of the headband will vary depending on the size of the head and design specifications. Ultimately, the St. Louis Band is designed to resist and redirect deforming forces acting on the head in all daytime and nighttime positions.
- Custom trim lines and openings are determined by each cranial specialist to address the unique shape of each baby's head.

Modifications and adjustments—The St. Louis Band creates a precise pathway to direct your child's head towards optimal growth dimensions. Just as growth spurts occur throughout the entire body, head growth also occurs in spurts. The Cranial Care specialist will evaluate and adjust the headband as needed at each visit throughout the entire treatment program.

Follow-up visits—After the first fitting of the headband, ongoing visits are necessary to ensure the optimal fit and function of the St. Louis Band. Each visit will be scheduled based on the needs of each infant, and considerations include age, severity of head shape, developmental milestones, neck muscle involvement, and coordination with other medical visits. Follow-up visits generally range from two to four weeks, and additional appointments are welcome if parents or caregivers have questions or concerns.

Length of treatment—Ideally, headband programs are begun between four and six months of age. This time period captures the greatest natural growth of the infant's brain and skull, and decreases the amount of time needed to wear the orthosis and obtain optimal results. In most cases, these treatment programs are three to five months in length and correction is obtained with just one headband. Older infants will likely require a slightly longer treatment program and they also complete treatment with a single STARband.



Scanners used to capture the head shape—At O&P Lab, the Cranial Care specialists use STARband's FDA cleared STARscanner® data acquisition system—the most accurate laser scanner available for cranial applications. These scanners are extremely accurate and quickly capture the shape of the baby's head. This scanning process is the foundation for an incredibly accurate model to be sent for fabrication of the STARband.