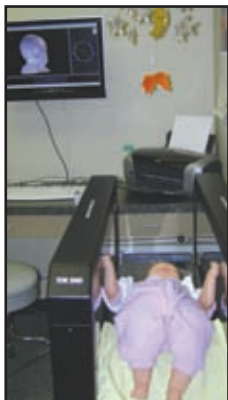


A general course of treatment involves the following:

- 1 hour evaluation appointment
- 1 hour fitting appointment, 7-8 working days after initial appointment.
- 30min, 1 week follow up appointment
- 30min-1hour, follow up appointments every 2-4 weeks throughout the duration of helmet therapy.
- Rescans will be taken when at least 1/4" of growth in circumference is seen.
- \* Usually 2-4 rescans are taken throughout the course of treatment.

If you are experiencing any problems or have questions regarding your Orthosis, please call your SCOPe practitioner.

### What exactly is the STARscanner



The STARscanner is the first scanning system to be developed specifically for analyzing and capturing 3-D head shape of infants with cranial asymmetries. SCOPe children's office has one of the few scanners currently located worldwide. The STARscanner is noninvasive and scans take less than 2 seconds to complete. The STARscanner uses eight cameras and four eye-safe, class I, lasers to capture head shape. The STARscanner also replaces the

traditional casting process. The symmetry measurements calculated by the scanner, allow your orthotist to compare the infant's head shape changes over time to:

- Follow physical therapy and repositioning efforts
- Provide insurance companies with detailed information
- Monitor treatment with a cranial remolding orthosis
- Document pre and post-treatment results
- Analyze pre and post-operative changes

### The STARband Cranial Remolding Orthosis

The STARband is made of a plastic flexible shell lined with 1/2" of polyethylene foam. The foam can be modified over time to allow for growth and will provide room for your child's head to grow into a more symmetrical shape. The STARband is an active helmet that will not touch the flat quadrant of your child's head but will touch the bossed, or full, areas of your child's head. This enables your child to sleep in any position they want, yet keeps the pressure off the flat spots and discourages head growth in the prominent areas.

## SCOPe Patient Care Centers

### Children's

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Temecula, CA 92592  
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### Torrance (Life-Like)

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# Information About Cranial Asymmetries & Remolding Helmets



This brochure is not intended to be used as a substitute for professional medical advice.

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**SCOPe**  
ORTHOTICS &  
PROSTHETICS, INC.  
Making Dreams Happen™

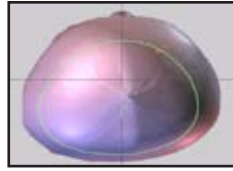
## What is Plagiocephaly?

Plagiocephaly is a generic term that literally means an oblique head. Plagiocephaly is characterized by a parallelogram head shape where there is a flattening on one side of the back of the head and forward progression of the ear and forehead on the same side of the head.



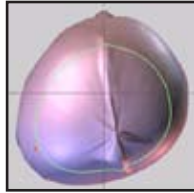
## What is Brachycephaly?

Brachycephaly is characterized by a head that is symmetrically flat in the back of the head. The flattening of the back of the head causes the head to be very wide from side to side, and shorter from front to back.



## What is Brachycephaly with Asymmetry?

Brachycephaly with asymmetry is head shape that has the characteristics of both brachycephaly and plagiocephaly.



## What is Scaphocephaly?

Scaphocephaly is characterized by a head that is shaped long front to back and short from side to side.



## Possible Causes of Cranial Asymmetries;

There are many factors, pre and postnatal, that relate to the occurrence of cranial asymmetries. These include, but are not limited to:

- Positioning- the infant's head can be shaped by prolonged positioning in one direction.
- Restrictive intrauterine environment- today's infants are larger and healthier than before.
- Multiple births- due to decreased intrauterine space.

- Firstborns- size and shape of the uterus is more limiting during the first pregnancy.
- Breech births- fetal heads can become wedged to produce an asymmetric head shape.
- Suction extraction/ forceps- may alter the shape of the skull.
- Long and difficult labors and deliveries- fetal heads can become wedged in the birth canal.
- Congenital muscular torticollis- restricted neck range of motion can induce a specific lying position.
- Poor muscle tone- the head resting continuously in one place can cause flattening of the skull.
- Extended time in NICU- specific positioning for access to tubes and leads.
- Premature births- extended time in the NICU and low muscle tone are common.
- Cervical vertebral abnormalities- can lead to specific positioning resulting in deformation.

## What is Craniosynostosis?

Craniosynostosis is a premature fusion of the sutures of the skull. If one or more of the sutures close before the child's brain achieves full growth, it can create an abnormal shape. Physicians can differentiate between craniosynostosis and deformational plagiocephaly based on a physical examination. Sometimes, physicians request a more definitive test such as a CT scan or a MRI to clarify the diagnosis. If a child has craniosynostosis, surgery may be recommended to allow normal growth to occur. After surgery, some children are fit with a remolding orthosis to further improve the shape of the head.

## What is Torticollis?

Torticollis is an asymmetry in the neck muscles that cause the head to tip toward the affected side and rotate the face to the opposite side. The constant tipped position of the neck can lead to cranial asymmetries. Your doctor may recommend stretching exercises if your child has torticollis. They may also recommend that your child sees a physical therapist or occupational therapist for further monitoring and instruction.

## What is the Back to Sleep Program?

The back to sleep program (putting the infant to sleep on their backs) began in 1992 and was designed to decrease the rate of SIDS (sudden infant death syndrome). The back to sleep program has led to a reported 70% reduction in the rate of SIDS. However, there has been an increase in the number

of infants with skull deformities as a consequence of this sleeping position.

## What are Repositioning Techniques?

The infant's skull is at risk of deforming with specific positioning because it is thin and malleable, to allow for the birthing process. If a child is less than 4 months of age, alternating positioning is recommended to evenly distribute pressure on the growing skull. Ways to achieve this include having the infant respond to toys and stimulus on the right and left sides to evenly distribute pressures on the skull. If slight asymmetry of the skull is noticed, it is important to encourage positioning so pressure is removed from the flattened area. Tummy time during the day is also crucial. Your child should spend 50% of their waking time on their stomach! If you would like further information about different repositioning techniques, please ask your orthotist. Repositioning is considered conservative treatment for cranial asymmetries. If repositioning is not effective in improving your child's head shape, your doctor may recommend a cranial remolding orthosis.

## What to Expect When Referred to SCOPe for a Remolding Helmet.

Your first appointment will be an hour appointment that will be scheduled within one week of receiving your faxed prescription or phone call. If you have any questions prior to your appointment time, please ask to be transferred to an orthotist.

During your initial appointment, your orthotist will provide you with verbal and written information about repositioning techniques, plagiocephaly, and helmet therapy protocols. A general history will be taken as well as digital photos, measurements and a topographical scan. The scan uses a combination of lasers and cameras to capture the surface of your child's head. This information is used to determine the severity of your child's asymmetries, the necessity of a helmet and the potential duration of wear.

Children typically wear the helmets 23 hours a day, for 4 months. Duration of wear is based on the age of your child, and the severity of asymmetries.

Your Orthotist will provide you with a print out of your topographical scan and explain the results to you. They will also outline a treatment plan.