

# Head Shape Asymmetries

(Plagiocephaly/Brachycephaly/Scaphocephaly)

Plagiocephaly, Brachycephaly and Scaphocephaly are terms used to describe flattened spots of an infant's skull. Flattened spots may develop on a baby's head, particularly to the side and back of the head, as a result of prolonged mechanical forces on the baby's rapidly growing skull.

## What causes Plagiocephaly and Brachycephaly?

A baby's skull is soft and thin with flexible plates to enable the infant to pass easier through the birth canal. This makes the skull shape susceptible to mechanical forces exerted upon it. Some forces include:

- *The baby's skull resting against the wall of the womb in utero.*
- *The baby spending a lot of time in the birth canal during birth*
- *Vacuum extractions and forceps use during delivery*
- *The baby spending prolonged periods in car seats/bouncers/prams etc*
- *Consistent positioning of the baby on one side of the skull (eg during rest, feeding or carrying)*
- *Muscle imbalances of the neck (torticollis), that leads the baby to favour side bending and rotating one way.*

For a very small number of babies who experience persistent and uncorrected plagiocephaly, uneven growth of the face and head may alter the baby's physical appearance and may cause problems with chewing and eating.

For the majority of children, plagiocephaly is preventable and treatable.

## At Kids Physiotherapy we can assist by performing:

- *An assessment of your baby's motor skills, muscle length and strength*
- *Teaching you handling, carrying and positional techniques*
- *Simple stretches and strengthening exercises to address muscle imbalances of the neck (Torticollis)*
- *Play strategies and positions for reducing mechanical loading on the flattened spots and encouraging equal neck movement and strength.*
- *Referral to an orthotist to obtain a customized cranial remodeling helmet is sometimes needed in moderate to severe cases of misshapen head.*

## Correction Helmets

Sometimes when the uneven head shape is more severe, a cranial remodelling helmet may help. The helmet helps the skull re-shaping process by removing the pressure over the flat area and allowing the skull to grow into the space provided. Helmets work best between four and eight months of age.

A specialist, called an orthotist, makes a casting of your baby's head and custom makes the helmet.

The helmet must be worn for 23 hours a day and may come off for one hour. The helmet shape must be adjusted by the orthotist every one to two weeks and treatment usually takes between 8-12 weeks of wear. Wearing the helmet doesn't hurt and babies usually get used to it very quickly. Parents can feel quite emotional when their child first wears the helmet. It can be helpful to know this is a common feeling and to remember treatment is temporary and outcomes are normally very good.