Plagiocephaly - Misshapen Head
Pronounced: Play-gee-o-kef-a-lee

What is plagiocephaly?

Plagiocephaly is the most common craniofacial problem today. Deformational plagiocephaly, also known as positional plagiocephaly, means a mis-shapen or uneven (asymmetrical) head shape. Plagiocephaly does not affect the development of a baby’s brain, but if not treated it may change their physical appearance by causing uneven growth of their face and head.

Signs and symptoms

It is common for a newborn baby to have an unusual head shape. This can be caused by the position of the baby in the uterus during pregnancy, or can happen during birth. Your baby’s head should go back to a normal shape within about six weeks after birth. Sometimes a baby’s head does not return to a normal shape and the baby may have developed a flattened spot at the back or side of the head. This condition is known as deformational plagiocephaly.

Causes

The bones of a newborn baby’s head are thin and flexible so the head is soft and may change shape easily. Flattening of the head in one area may happen if a baby lies with its head in the same position for a long time.

Prevention

A baby’s head position needs to be varied during sleep and awake periods. There are some simple things you can do to help prevent your baby developing deformational plagiocephaly:

Sleep time: A baby must always be placed on their back to sleep to reduce the risk of SIDS (Sudden Infant Death Syndrome/Cot Death). However, it is important to vary the position of your baby’s head by alternating its position between the left and right side each time they sleep.
**Sleep position:** Place your baby at alternate ends of the cot to sleep, or change the position of the cot in the room. Babies look at fixed objects like windows or wall murals. Changing their cot position will encourage them to look at different angles.

**Play time:** Place your baby on their tummy or side to play when awake. You can also change the position of toys that your baby likes to look at.

Vary the holding and carrying positions of your baby. For example, use a sling, hold upright for cuddles, carry your baby over your arm on their tummy or side.

**Treatment**

If you have concerns about your baby's head shape or if you notice that your baby only turns their head to one side when lying on their back, you need to talk to your Maternal and Child Health Nurse or family doctor.

Many children with deformational plagiocephaly do not need any treatment at all, because the condition can improve naturally as the child grows and begins to sit up. For children where treatment is necessary, it is important to see a specialist (plastic surgeon) between four and eight months of age. This is because the greatest amount of correction will occur before 12 months of age. Treatment is provided by a team including a plastic surgeon, orthotist and paediatric physiotherapist in private practice or in a public children's hospital.

The most common forms of treatment are counter positioning and/or helmet therapy:

**Counter positioning**

This involves parents making sure their infant does not rest on the flat spot by alternating their baby's head position from the back to the sides. Increased tummy time and lying your baby on their side to play can also help. Counter positioning techniques can be taught by health professionals, including maternal and child health nurses and paediatric physiotherapists.

**Corrective helmets**

Sometimes when the uneven head shape is more severe or where counter positioning did not work, a cranial remodelling helmet may help. Helmets are lightweight and made of a thin hard shell with a foam lining for comfort. The helmet helps the skull re-shaping process by removing the pressure over the flat area, 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. You do not need to shave your child's hair.

The helmet must be worn for 23 hours a day and may come off for one hour (ie to wash your baby's hair). The helmet shape must be adjusted by the orthotist every one to two weeks and treatment usually takes between two to six months. 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.

**Key points to remember**

- Lie your baby in different positions when they are asleep and awake to prevent deformational plagiocephaly.
- Deformational plagiocephaly is usually easily treated.
- Deformational plagiocephaly does not cause brain damage.
- Talk to your Maternal and Child Health Nurse, GP or paediatrician if you are worried about your baby’s head shape.

*Disclaimer*

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