Positional plagiocephaly
Information for families

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What is positional plagiocephaly?

This is a condition that affects the skull, where the back or side of your baby’s head becomes flattened.

The skull is made of separate bones which gradually fuse (join) together as we grow older. In babies, these bones are not completely joined together and are soft enough to be moulded. This means that the head can become flattened by pressure on it.

What causes plagiocephaly?

Flattening of the head can be caused by any pressure and may sometimes develop in the womb before the baby is born.

It can also happen after birth. It has become more common since the “Back to Sleep Campaign” was introduced in the 1990s. Since this time, babies have been encouraged to sleep on their backs and on a relatively firm mattress. This is in order to reduce the risk of sudden infant death syndrome (SIDS) or ‘cot death’. As young babies spend such a long time sleeping, the pressure of the mattress on the back of the head can cause it to become flattened over time. If the baby has a preference to turn the head to one side, this flattening will be more on one side than the other.

Doctors still recommend that babies sleep on their backs. The benefit of reducing SIDS far outweighs the risk of plagiocephaly.

Occasionally, in severe cases, flattening at the back of the head can cause some asymmetry (unevenness) in the face. This is usually mild.
What are the effects of plagiocephaly?

Plagiocephaly does not cause any symptoms apart from the flattened appearance of the head. It is therefore a cosmetic disorder.

There is no pressure on the brain itself, so your baby should develop and grow in the normal way. If you are concerned about your baby’s development, you should speak to your doctor or health visitor.

How is plagiocephaly diagnosed?

It is usually easy to make the diagnosis from examining the baby – looking at the shape of the head and feeling the skull bones.

The story is also quite typical. For example, the head shape was normal at birth, and then became flattened by two to three months of age.

X rays are not usually necessary. However, if there is any doubt about the diagnosis, these may be arranged.
What is the outlook for my baby?

Once the pressure that caused the plagiocephaly in the first place has been removed, the head can start to grow back normally again. This happens when the baby spends less time lying on their back and has learnt to roll, sit and change position frequently.

Most babies with mild plagiocephaly are better by the time they are a year old. More severe cases may take longer, but improvement can continue for several years.

Very occasionally, some head flattening can remain, but this is not usually obvious once hair has grown.

There is no long-term effect on the brain.
How is plagiocephaly treated?

Early recognition is the most important factor if your baby has plagiocephaly. In many cases, formal treatment is not required.

There are several things you can do at home to help prevent severe plagiocephaly and improve the shape of your baby's head.

**Tummy time**

Tummy time should be part of every baby’s daily routine, as this is where they learn the skills needed to roll, sit and crawl. Being on their tummy also prevents the pressure on the back of the head that causes plagiocephaly. **It is important that babies continue to sleep on their back, so tummy time should be kept for when your baby is awake and supervised.**

Not all babies enjoy tummy time at first. Young babies may feel more secure being placed on your chest or over your knee. A small rolled up towel can be positioned under your baby’s chest to help them lift up their head and shoulders. It is best to practice tummy time little and often throughout the day, rather than in one long session.

**Sleeping pattern**

Try to encourage your baby to turn their head to the opposite side (of the flattening) when sleeping. Placing toys, mobiles and mirrors on this side of the room may help.

**Play**

Encourage your baby to look to their least favoured side with toys, music and mobiles. Approach and talk to your baby from this side in their cot and on their play mat.
Physiotherapy

Physiotherapy can be helpful for those children who have difficulty turning their head to one side due to tight muscles.

Helmets and bands

The use of these remains controversial, as there is no strong evidence that they are much more effective than following the measures above. They are not needed for most babies with mild flattening, but they may be considered when flattening is severe and fails to improve with the measures above. The helmets have to be worn for 23 out of 24 hours for several months, and are custom-made for each baby. They work by applying pressure on the prominent areas and encouraging growth in the flattened areas.

If you are concerned about the shape of your baby’s head, speak to your health visitor or doctor as soon as possible.
Acknowledgements

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