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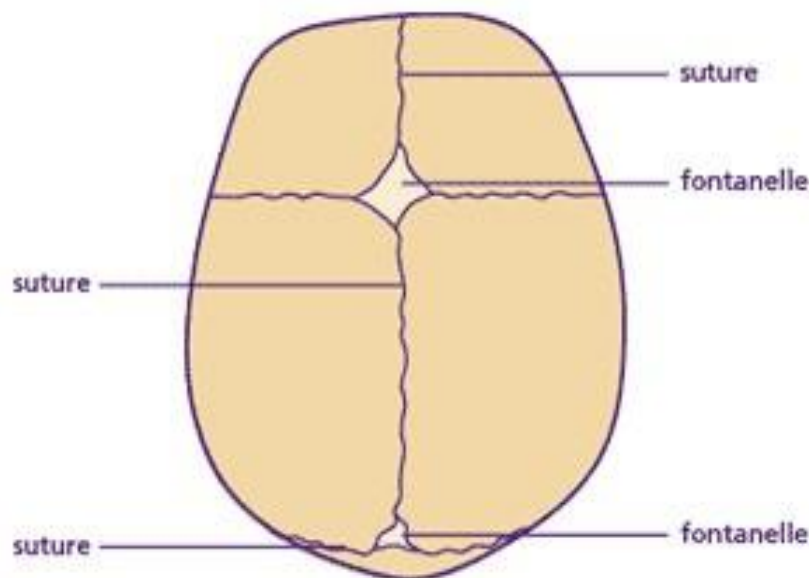
Positional Plagiocephaly (flattening of the head)

Children's Physiotherapy Service Aneurin Bevan University Health Board

What is Positional Plagiocephaly?

If your baby's head is flattened at the back or side, this is often called plagiocephaly.

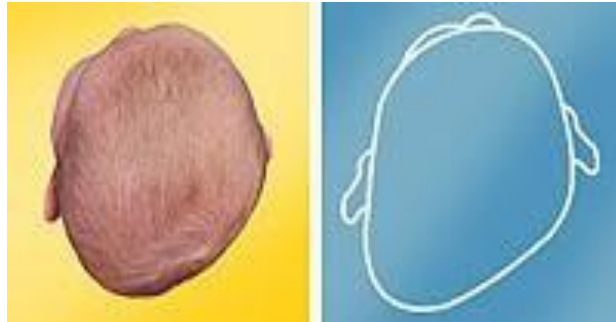
The skull is made up of several 'plates' of bone which are not tightly joined together when we are born. As we grow older, they gradually fuse, or join together. Sutures are the joints found between the bones of the skull. When we are young the skull is soft enough to be moulded, and this means its shape can be altered by pressure. This can flatten part of the baby's head, usually the back.



The normal skull of a newborn child

Another term for fontanelle is soft spot

What causes positional plagiocephaly?



Positional plagiocephaly is produced by pressure from the outside on part of the skull. It can occur while the baby is still developing in the womb. Recently it has become more common for flattening to occur after the baby is born.

Why is this?

The main cause of pressure is the baby's position. Since the "Back to Sleep" campaign, doctors have recommended that all babies sleep on their backs to reduce the risk of Sudden Infant Death Syndrome (SIDS or 'cot death').

However some babies now are mainly placed on their backs throughout most of the day, when sleeping, while being carried about or while in car seats. This is at a time when the baby's skull is the softest and most easily moulded into a different shape.

Doctors still recommend that babies sleep on their backs as the benefit of reducing SIDS far outweighs any dangers due to positional plagiocephaly.

Torticollis

Some babies with plagiocephaly have Torticollis (tightening of one of the neck muscles). Babies who suffer with torticollis find it difficult to move their heads in both directions, therefore will almost always lie facing to the left or right (depending on which side of the neck is affected). If you are concerned that your baby may have this problem, discuss with it your Health Visitor or GP and they can send a referral for a physiotherapy assessment.

How common is positional plagiocephaly and who does it affect?

Positional plagiocephaly is much more common now. It is estimated that up to half of all babies under a year old may be affected by Positional Plagiocephaly to a greater or lesser degree.

It affects boys and girls equally. It seems to affect premature babies more often than those born at the expected time. This is probably because the skull plates become stronger in the last few weeks of pregnancy.

What are the symptoms of Plagiocephaly?

There are no symptoms associated with Positional Plagiocephaly, other than the flattened appearance of the back of the head, either evenly across the back or more on one side. It does not cause any pressure on the baby's brain and the baby's development will not be affected by it in later life.

How is positional plagiocephaly diagnosed?

It is not hard to diagnose or recognize a child with positional plagiocephaly, and is usually first noticed when a baby is about 2-3 months old.

If your doctor has any doubts about the diagnosis, your baby may need some other tests, x-rays or scans to rule out other problems.

Will the plagiocephaly get better?

Mild positional plagiocephaly usually corrects by the time a child is 1 year old. Even more severe cases improve with time, in the severest of cases some flattening can remain, but when the head is covered with hair this is rarely noticeable.

What treatments are available?

In mild cases, babies may not need any active treatment.

There are several ways of encouraging natural improvement in head shape:-

- **Early Recognition**- the younger the child is when it is first recognised the better the chances of stopping the progression.
- **"Tummy Time"**- Your baby **should not** be placed on his/her tummy for sleep. But the more time a baby spends on his/her tummy when awake, the better the chance of stopping the plagiocephaly getting worse- and allowing the natural correction to begin. Play with your baby while lying on his/her tummy to help your baby to learn to lift his/her head and look around. Make it fun - use mirrors, toys and your own face to tempt the baby to lift his/her head. You can place a rolled up towel under your baby's chest with the arms brought forward, this can make it easier to lift his/her head

Tummy time can be introduced from birth, 2 or 3 times a day for a few minutes or longer if the baby is happy.

Alternatively, try lying your baby on your chest whilst you lie back.

- **Side lying** is another good position to avoid pressure on your babies head.
- **Sleeping Position** - Adjust the baby's sleeping position so that everything that is exciting is in the direction that encourages him/her to turn his/her head the way he/she does not want to move, this will help take pressure off the flat area of the head. Alter the position of mobiles and toys. A rolled up towel under the mattress may help baby sleep with less pressure on the flattest part of his/her head.

Try changing the baby's position when in the cot, so the baby lies at the end which encourages him/her to move his/her head away from the flattened area.

Change the position of the light in the room so that it is on the side that the baby tends to favour less. Even young babies will turn towards a light source.

Reposition the baby's head away from the flattened side after he/she has gone to sleep. It is best to do this when the baby is in a deep sleep as he/she will be less likely to move it back again.

- **Physiotherapy-** for those children with difficulty turning their head in one direction (torticollis), physiotherapy can be very helpful. The sooner the head turns as easily one way as the other, the sooner natural correction of head shape can begin.
- **Helmets and Bands** - The use of these remains controversial. If all the actions listed above are taken, does a helmet add anything? The answer is we do not know for sure. They often have to be worn for several months and for 23 hours out of 24. The idea behind some types of helmet is that they constrain undesirable growth and encourage growth in the correct locations. They are currently not supplied on the NHS.
- **Feeding-** Most breastfed babies are used to switching sides while feeding, so if your baby is bottle fed, change which side you feed him/her on at every feed. It takes a little getting used to, but it soon becomes comfortable.
- **Travel-** Reduce the amount of time that the baby spends with the back of his/her head on a firm flat surface, for example: when in car seats, buggies, etc.

The use of slings and front carriers reduce the pressure on the baby's head.

When in a car seat, you can use a rolled towel or soft foam pad to move the baby's head away from the flattened side. Many high street stores now stock 'neck rolls' for this purpose.

- **Carrying** - Carry your baby in lots of different positions. Alternate the hip or arm with which you carry your baby.

Support Groups

The following group may be able to offer support and advice

Headlines

44 Helmsdale Road
Leamington Spa
CV32 7DW

Tel: 01926 334629

Email: info@headlines.org.uk

Website: www.headlines.org.uk

References

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