

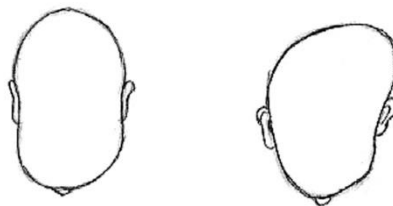
Your Baby's Head Shape: Occipital Plagiocephaly of Positional Origin

While the rate of Sudden Infant Death Syndrome (SIDS) has greatly decreased since parents and caregivers have followed recommendations to put babies to sleep on their backs ("Back to Sleep" programme), another issue has come to the fore. Babies who lie for long periods of time in one position, can develop flat areas on their heads. It is well known that babies' skull bones are very soft until about one year of age. Further, multiple birth babies can be at a greater risk for occipital plagiocephaly (and/or torticollis) due to "stacking" in the womb, i.e. the lower baby may be engaged in the birth canal with one, two or more babies above it. The combination of increased pressure from above the baby and that of gravity can place a lot of pressure on the lower baby's head and neck. In addition, prematurity and supine sleeping (i.e. placing a baby on its back to sleep) increases the likelihood of there being a risk of a flat spot occurring.

What is Occipital Plagiocephaly of Positional Origin?

"Occipital Plagiocephaly" is a medical term for the flattening of one side of the back of the head, often caused by lying with the head in the same position. A flat area may develop very quickly or over several months. Visually, your child may have one ear that is shifted forward of the other and may also have facial changes, e.g. forehead protrusion or cheek protrusion in more severe cases, on the flat side of the head.

Head Shapes (looking down from above at the top of the baby's head)



Normal head shape Positional plagiocephaly

What can I do if my baby(ies) has a flat area on their head?

With proper positioning encouraged by the parents, the baby's head shape usually quickly improves on its own. When a flattening of the head is noted, or you notice that your baby(ies) has a strong preference for turning to one side, it is important to take some action to rectify the situation. After discussion with and agreement by your doctor, the following are some ideas for you to try to keep the baby off the flat side:

- Make sure that your baby(ies) is placed off the flat area always. This can be accomplished by placing a small, rolled up blanket under your baby's shoulder, on the same side as the flat area. This will help keep the baby's head turned away from the flat side. Make sure that the baby's underside arm is out so that there is extra protection against the baby accidentally rolling on its tummy.

- Babies tend to look towards the door while lying in their cribs (as they wait for a parent to appear). Move the crib often to change the view of the door. Move toys and mobiles around and away from the flat side of his head. This will encourage your baby(ies) to look towards the toys. You could also regularly change the ends of the bed when putting your baby(ies) to sleep.
- When holding, feeding or carrying your baby(ies), make sure that there is no undue pressure placed on the flat side.
- With the new baby seats that go from table to car to stroller frame, babies can potentially spend long periods of time sitting in the same position, which then puts pressure on the same place of the skull. Avoid leaving your babies for long periods in the same position.
- Provide your baby(ies) with lots of SUPERVISED play on their tummies. This helps build and strengthen neck, shoulder and arm muscles. Appropriate toys can be used to encourage tummy and side lying play.
- Provide lots of SUPERVISED time to play in a sitting position and in an 'exersaucer' as soon as each baby has achieved good head control.
- Pay attention to bottle-feeding. It isn't necessary to change a baby from side to side once the spot has been noticed, but the person feeding the baby(ies) will need to make sure that there is no undue pressure placed on the flat spot. For prevention of a flat spot occurring, change your baby(ies) from side to side at each feeding.
- If you notice that one or more of your babies has difficulty turning her head(s), she may require some neck stretching exercises. Consult your physician who can refer you to appropriate physiotherapists, if this is the case.
- For the best results, positional therapy needs to be started before the baby(ies) is four months old.

How do flat areas occur?

Before Birth:

- One or more of your multiple birth babies may be born with flat areas on their heads due to lack of space to change positions in the womb.
- One multiple birth baby may be engaged in the birth canal while the other(s) is "stacked" on top, putting pressure (gravity) on the lower baby's head and neck.

After Birth:

As newborn skulls are very soft and malleable to help ease the baby through the birth canal, it is not unusual for newborn babies to have an unusual shape to their heads, due to the pressure of birth. This will generally rectify itself by about six weeks after birth.

- However, some babies show a preference for sleeping or sitting with their head turned in the same position for most of the time.

- Some babies may have the additional problem of torticollis, a neck muscle problem, that prohibits them from properly turning their head to another position.
- Premature babies have softer skull bones than a term baby.

Does having Positional Plagiocephaly cause problems for my child?

In most cases, having a flattened area will not affect a baby's brain growth or mental development. When the hair grows in, it will cover the flat spot and it will not be visible. However, if there are visual changes in the baby's appearance, i.e. one ear may be shifted forward of the other one, on the same side as the flattening (refer to diagrams), this can make a difference cosmetically with perhaps reduced perceived attractiveness and there is a potential for teasing and/or rejection amongst peers.

What do we do if positioning doesn't help?

If positioning exercises do not help, it may be necessary for your child(ren) to wear a helmet(s). Your physician will guide you, if this is the case. Each case is different and each child unique but you may count on your child(ren) needing to wear a helmet for six to eight months up to 23 hours each day, from when it is initially recommended.

*Note: Helmets look a lot like hockey helmets, which cover much of the head to help reshape the skull.

To Sum Up...

With routine change of baby's head position right from birth, the problem can be prevented;

- 2) With early recognition and treatment after birth or at two to four months of age, positional therapy may be all that is required in most cases; and
- 3) Only in the more severe cases will the use of a helmet be indicated.

Definitions:

Occipital Plagiocephaly: a one-sided occipital flattening that results in marked skull asymmetry.

Torticollis: shortening of the neck muscles on one side of the neck, making it difficult to turn the head. Rectified by stretching exercises.

Uterine Constraint; Uterine Packing; Stacking: These terms may be used to describe the positioning of multiple fetuses within utero. We have chosen to use 'stacking' in this text.

Additional Resources:

Najarian, S.(1999). *Infant Cranial Molding Deformation and Sleep Position: Implications for Primary Care*. Journal of Pediatric Health Care, 13, 4, 173-177.

Neufeld, S. and Birkett, S. (1999). *Positional plagiocephaly: A community approach to prevention and treatment*. Alberta RN, 55, 1, 15-16.

Web Sites:

www.orthoseek.com/articles/ifs-right.html

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