

Plagiocephaly and Dolichocephaly

What is plagiocephaly?

Plagiocephaly is a flat area on the back or side of your baby's head. This head shape may develop if your child has their head turned to one side for a lot of time.¹

What is dolichocephaly?

Dolichocephaly is an elongated head shape. This head shape may develop if your child spends a lot of time lying on their side or stomach.¹

What causes these head shapes?

Infants are born with soft skulls. This means the skull can change shape easily. The bones of the skull fuse after 1 year of age. When infants spend a lot of time in one position or have difficulty moving around, it can affect the shape of their skull. These head shapes are very common for preterm infants in the NICU.¹

Why is this important?

These abnormal head shapes are associated with delays in meeting motor milestones. Babies may have trouble learning to reach, roll, or crawl. They may not move one side of their body as well as the other side. They may also have delays in language and cognitive skills. We try to prevent these issues or treat them early when possible.¹



How can these head shapes be prevented?

- Position changes – you may see your baby placed on their side, back, or stomach
- Positioning aids – such as a special pillow or mattress
- Head measurements to monitor for changes in head shape¹⁻³

What can I do to help when I take my child home?

- Tummy Time – Aim for 1 hour of tummy time per day. This can be broken into shorter periods of time during the day. Placing your baby on their stomach takes the pressure off their skull. It can also help their neck muscles to get stronger.
- Limit the amount of time spent in “containers” such as a swing or a jumper
- Your pediatrician may refer you to a specialist, if your baby’s head shape does not improve on its own. They will fit your child with a cranial orthotic. This a special helmet which helps to correct the shape of the baby’s skull. It helps to encourage growth in the flat areas.¹⁻³



References

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2. Flat Head Syndrome (Deformational Plagiocephaly). <https://www.stanfordchildrens.org/en/topic/default?id=flat-head-syndrome-deformational-plagiocephaly-90-P01834>. Accessed April 3, 2023.
3. Deformational Plagiocephaly | Johns Hopkins Medicine. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/deformational-plagiocephaly>. Accessed April 3, 2023.