

Heads - Large, Small and Odd Shapes, Soft spots or Fontanelles / How to Prevent and Improve Plagiocephaly

01 IN BRIEF

Techniques to prevent or improve plagiocephaly are most effective in the first 3 months when the head is growing rapidly and the bones are still very soft. Alternating head positions, counter positioning, encouraging baby to look to the less preferred side and increasing tummy time are all effective in preventing or improving head shape. Tight neck muscles associated with a head tilt known as torticollis will need physical treatment.



02 WHAT DO I NEED TO KNOW?

PLAGIOCEPHALY

- Literally means '*plagio*' oblique and '*cephaly*' head, and refers to the deformity that occurs when part of the skull of the newborn is flattened as a result of pressure being placed on one area of the skull more than another. It may be present at birth, or it may occur from a preference for the baby to sleep with their head to one side, or from being placed on their back in order to prevent SIDS.

WHAT CAN I DO TO PREVENT PLAGIOCEPHALY OR IMPROVE MY BABY'S HEAD SHAPE?

- The first step is to remember to take the pressure off the flat spot so your baby's head can round out as it grows. This involves moving your baby's head, in order to make sure she does not rest on the flat spot, by consistently repositioning her head to lay on the rounder side. You can also encourage your baby to look to the less preferred side by moving her toys and/or moving her cot (see below under 'Things to do'). You can also alternate the end of the cot you place the baby in, so she constantly changes her head position - just remember to keep her facing the same way.
- Such strategies work best for babies less than 3 months old because the skull is still soft, and your baby is more likely to remain in one position.
- In general, most of the babies show improvement after 2-3 months of repositioning. These methods can still be effective for babies up to 12 months of age.
- Many parents have difficulty getting babies who are 3 months or older to sleep on the rounder side of their head because they have already become accustomed to sleeping on the flattened side. Studies have shown that babies get used to one sleep position within the first 3 months of life and do not readily accept a change after that time. If possible, it's a good idea to get your baby used to different positions by laying them down a different way each time.

THINGS TO DO

CHANGE HEAD POSITIONS WHEN BABY IS LYING FLAT

- **Alternate the side your baby sleeps on:** move her head to a different position each time you lay the baby down. Place a safe toy on the side you put the baby down to encourage her to look in the chosen direction.

ENCOURAGE BABY TO LOOK TO THE LESS PREFERRED SIDE

- **Play time:** When you are holding your baby during playtime, use mobiles or brightly coloured toys to encourage your baby to look in the less preferred direction. Hold your baby upright with her tummy against your shoulder, rather than on her back in your arms.
- **Feeding position:** Try to always feed from the less preferred side so that baby learns to turn that way.
- **Sleep and cot positioning:** Change the cot position in the room so that your baby looks away from the flattened side to see you and others in her room. Babies like light so if there is a window in the room position her in the cot so that the preferred side faces the window.
- **Nappy changes:** Babies like to look at your face so stand to the slightly to the less preferred side and talk to your baby as you change or dress her.
- **Supervised side time:** Place her on her side during playtime so she is on the less preferred side when awake. Never leave her to sleep on her side.

MINIMISE TIME SPENT IN FLAT DEVICES

- **Avoid long periods laying/sitting in flat devices:** e.g. carry capsules, car seats, prams.
- **More upright time:** use forward or backward carry slings from an early age so baby is more upright. Baby jumpers and walkers are not recommended as they can cause tightening of the tendons around the ankle while still growing.

MORE TUMMY TIME

- **Start early.** Introduce tummy time within the first few days of life and continue thereafter. Place your newborn tummy down on your chest or across your lap for a few minutes.
- **Make it comfortable.** Lay your baby down on a flat, clean surface, such as a blanket or play mat on the floor. If she squirms or cries, try some extra padding e.g. Roll up a small swaddling blanket and tuck it under her chest, at the nipple level with arms forward of the roll, to help shift the weight towards her bottom. This can help a lot to improve your baby's tolerance of tummy time.
- **Gradually increase the time.** Put baby on her tummy after each nappy change. Add a little extra time each day. Short periods of quality tummy time are better than leaving your baby for longer time while crying.
- **Make it fun**
 - **Go head to head:** Lie down on the floor and get face-to-face with your baby. Make funny noises and expressions, or sing songs.
 - **Give her distractions:** Hold a mirror in front of your baby to capture her attention. Or place toys or a brightly coloured stuffed animal just within her reach.
- **Try for a minimum of 30 minutes per day.**

TORTICOLLIS: HEAD TILT and TIGHT NECK MUSCLES

If your baby has difficulty achieving full neck rotation to the less preferred side or has positional preference due to the tightness in the neck muscles, then it is important to get physical therapy.

NECK EXERCISES

The American Academy of Pediatrics suggests the following neck exercises when torticollis is present. Try these at each nappy change: 3 times for each exercise.

- Place one hand on the baby's upper chest, the other hand rotates the baby's head gently to one side so the chin reaches the shoulder. This is held for approximately 10 seconds. The head is then rotated to the opposite shoulder and held for the same count.
- The head is gently tilted so that the baby's ear touches her shoulder and is held for 10 seconds. Repeat on the other side.

The combination of neck exercises and the techniques described above will all help improve torticollis and associated plagiocephaly.

The information published here has been reviewed by Flourish Paediatrics and represents the available published literature at the time of review.

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