



CIUSSS de l'Estrie - CHUS

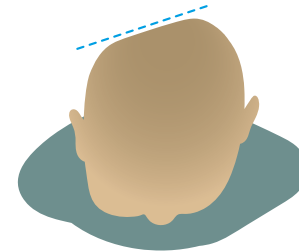
PREVENTING CRANIAL DEFORMITIES IN YOUR BABY (PLAGIOCEPHALY AND BRACHYCEPHALY)

INFORMATION FOR PARENTS



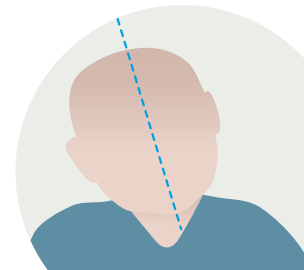
WHAT IS PLAGIOCEPHALY?

Plagiocephaly is the most common head deformity in babies. It consists of a flattening of the skull on either side of the head. This usually occurs in the first weeks or months of life. Plagiocephaly can also be present at birth depending on the baby's positioning in the uterus.



Causes of Plagiocephaly

Plagiocephaly is caused by prolonged positioning of the child lying on its back with the head rotated to one side. After birth, the baby's neck muscles are not strong enough to support the weight of the head. This causes the head to turn to one side or the other when the baby is on its back. Since the bones of the skull are soft and malleable, the skull will take on the shape of the surface it's resting on, especially if it's always resting on the same side.

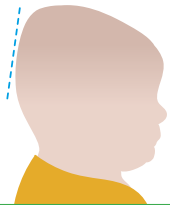


A torticollis at birth can cause a plagiocephaly. Conversely, positional plagiocephaly can increase the risk of developing positional torticollis.

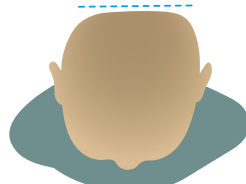
Child with torticollis. A torticollis is present when the head is tilted to one side and turned to the opposite side)

WHAT IS BRACHYCEPHALY?

Brachycephaly, commonly known as «flat head,» is a flattening of the back of the skull. Like plagiocephaly, it is caused by prolonged contact of the head with a surface.



Posterior flattening of the skull.



The flattening is centered and the skull is wider.

Children with poor muscle tone or larger heads are at greater risk of developing this deformity. The same applies to children who spend a lot of time in baby positioning equipment (e.g., car seats, swings, vibrating chairs).



Avoid leaving your child in such devices for long periods.



WHAT YOU NEED TO KNOW

Plagiocephaly and brachycephaly can affect the esthetic appearance of your child's head, making it more difficult to fit a helmet or glasses in a few years' time.

PREVENTING PLAGIOCEPHALY AND BRACHYCEPHALY

To prevent plagiocephaly and brachycephaly, it's very important to vary your baby's position so that they look both ways, every day.

For daytime naps and always under supervision, position your child as follow (semi-lateral position):

- Place your child on their side at a 45° angle (alternating sides from one nap to the next).
- Place a small roll in their back to stabilize the position.
- If you notice a flattening of the head, avoid putting your child to sleep on the flat side and favor the opposite side until the shape of the skull has been corrected.



Alternate these two SEMI-LATERAL positions during supervised daytime naps.

This positioning is more effective when the child is less than six months old, as bone structures are more flexible. After this age, the child is more mobile and maintaining this position becomes more difficult.

Alternate the side from which you approach your child and vary the position:

- Place stimuli on either side of your child during waking periods to encourage them to actively turn their head to both sides.
- Alternate your child's position in bed so that they turn their head to the left or right when they see you approaching. Do the same for diaper changes and bath time.



One day, place your child's head at the head of the crib. The other day, place their head at the foot of the crib. Place your baby's head at the end of the crib on alternate days.

- Remember to alternate the arm with which you hold your child or give the bottle. This will vary the side of the head that is supported.
- Avoid prolonged periods in positioning devices (e.g., vibrating chair).

CAUTION

It's important to respect the recommendation to have your child sleep on their back at night (or when you can't supervise them), until they start to roll over independently. With the exception of a tight-fitting fitted sheet, no other object should be in the bed. The Canadian Paediatric Society recommends these tips to reduce the risk of cot death.

WHAT TO DO IF YOU NOTICE A HEAD DEFORMITY IN YOUR BABY

During the day:

- Limit time spent lying on their back.
- Limit time in positioning chairs in which your baby's head is supported.

During awakening periods:

- Increase the time spent on your stomach. Increase tummy time periods

IN THE CASE OF PLAGIOCEPHALY

When it's time for a diaper change, nap, bath, or feeding:

- Approach your child more often from the unflattened side.

During the day:

- Perform semi-lateral positioning (45°; see p. 5 for technique), laying your child on the side opposite the plagiocephaly, until it disappears.

IN THE CASE OF BRACHYCEPHALY

During supervised daytime naps, alternate these two positions:

- Semi-lateral position (45°; see technique on p. 5)
- Side position (90°)

Use rolls to position your baby correctly and apply the positions to both the left and right sides.



WHEN TO CONSULT

If the flattening of your child's skull persists despite these recommendations, it's best to consult a health-care professional as soon as possible. Pediatric physiotherapists are the professionals of choice for this type of problem. They can also assess the presence or absence of torticollis and guide you in your child's motor development. Your nurse or doctor can also refer you to the right resources.

Cranial Orthosis

When cranial deformities are more severe and persist despite positioning advice, a cranial orthosis might be suggested. This is a helmet that your child will have to wear 23 hours a day for a few months. It can be used to reshape the skull when positioning is more difficult (when your child is generally between 6 and 12 months old).



In Estrie, the Centre de réadaptation de l'Estrie (CRE) assesses the need for a cranial orthosis through the Service d'aide à la motricité (SAM). This service is covered by the Régie de l'assurance maladie du Québec (RAMQ), when indicated.

THE IMPORTANCE OF THE PRONE POSITION IN YOUR CHILD'S MOTOR DEVELOPMENT

The prone position (tummy time) adopted several times a day **in the waking period** will help your child to:

- develop head control;
- avoid pressure points on the skull;
- strengthen the shoulders and upper-body muscles;
- learn to roll, reach, and crawl.

When playing with your baby on their tummy or side, use a firm surface such as a mat on the floor or an activity mat.

During the first few months of life, you can help your child improve their head control in a number of ways.

- 1 Lie on your back and place your baby flat on top of you. Talking to them will encourage them to straighten their head.



- 2 Lay them flat on a firm surface and place their arms and elbows in line with their shoulders so that they are supported by their forearms.

3

Place a small roll under their chest with their elbows in front of the roll, which will help them straighten their head and upper body.



4

Gradually increase the amount of time your baby spends on their stomach by showing them attractive toys. As a baby, your child will prefer contrasting colors (black and white, black and yellow). Later, they will be attracted by bright colors and mirrors.



IN CASE OF CONCERN

Contact your family doctor, health-care professional, or the primary-care access point (santeestrie.qc.ca/gap).

Find out more from public or community resources in the Estrie: santeestrie.qc.ca/famille

Visit websites from reliable sources:

Ordre des professionnels de la physiothérapie du Québec : oppq.qc.ca

Naître et grandir : naitreetgrandir.com

Reference Document

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