

## Guidelines for examination of plagiocephaly/brachycephaly 2017

### Does the infant have a favourite side?

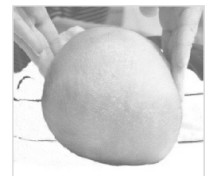
Ask the parents if their infant often has the head in the same position when being in supine; to the left/right, always in neutral position or often stays turned to one of the parents.

Put the infant on the examination couch and see how the infant acts with her/his head. Notice if it is hard to make the infant look in another direction or if it has difficulties to keep the head in neutral position.

### Examination the shape of the head

Put the infant **on** the parent's lap with the infant facing the parent or put the infant on the examination couch bench in a supine position, the head directed towards the examiner. Use the infant's nose as a marker, put your fingers around the forehead and at the back of the head, look and feel if there is asymmetry. If the infant has a lot of hair it can camouflage asymmetry, cow's lick can fool the eye.

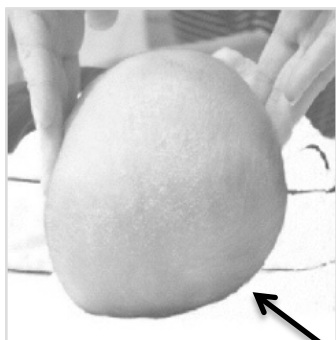
NB! Flat spots occur where the infant has rubbed the hair away. These can be a sign that that side of the head is flatter but is not reliable. Some infants rub the hair away on the rounder side and stay put on the flat side.



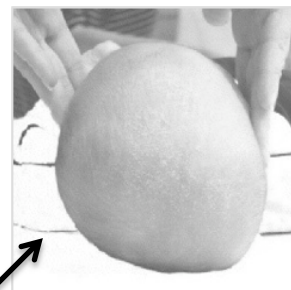
*Laying*



**Brachycephaly.** *Can be everything from minor to severe, a minor brachycephaly can increase to severe fast if the infant at an age of 0-3 months.*



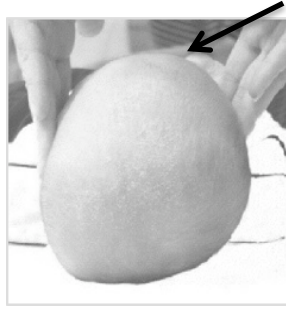
**Posterior flattening on the right side.**



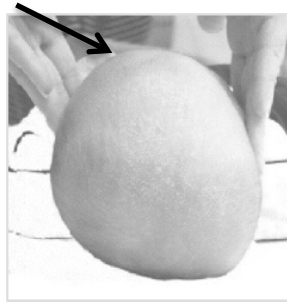
**Posterior flattening on the left side.**

Put together by Anna Öhman. Physiotherapist PhD Specialist in Pediatrics  
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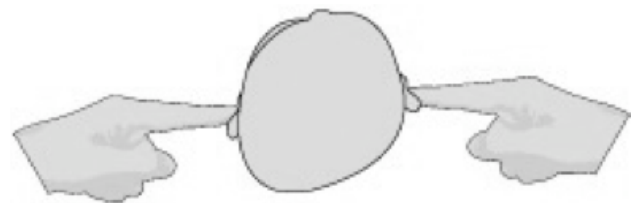
**Bulging forehead right side.**



**Bulging forehead left side.**



**Asymmetry of the ears.** *The ear is forward on the same side as the posterior flattening. If the opposite there is need to exclude Craniosynostosis.*

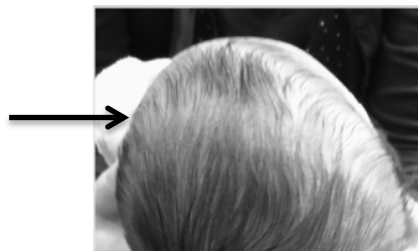


**Temporal asymmetry.** E.g. when one side is concave

**Temporal bulging left side.**



**Temporal bulging right side.**



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CranialTech scales can be used to estimate plagiocephaly and brachycephaly. 0=no asymmetry, 1=mild asymmetry, 2=moderate asymmetry, 3=severe asymmetry. It can be an advantage to also use half scores, one study showed good reliability for this e.g. between 1-2 (1.5).

### Plagiocephali

Severity Assessment for **PLAGIOCEPHALY**

Child's Name: \_\_\_\_\_ Sex:  M  F

Date: \_\_\_\_\_ Age at 18M: \_\_\_\_\_

Notes: \_\_\_\_\_

Frontal (Supine)

Left (Supine)

Right (Supine)

Frontal (Prone)

Left (Prone)

Right (Prone)

Frontal (Sitting)

Left (Sitting)

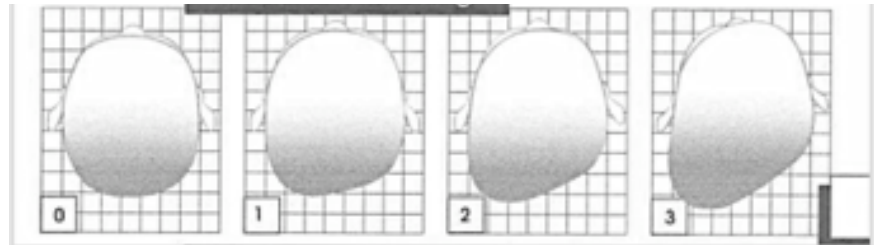
Right (Sitting)

Frontal (Standing)

Left (Standing)

Right (Standing)

Score: \_\_\_\_\_



### Brachycephaly

Severity Assessment for **BRACHYCEPHALY**

Child's Name: \_\_\_\_\_ Sex:  M  F

Date: \_\_\_\_\_ Age at 18M: \_\_\_\_\_

Notes: \_\_\_\_\_

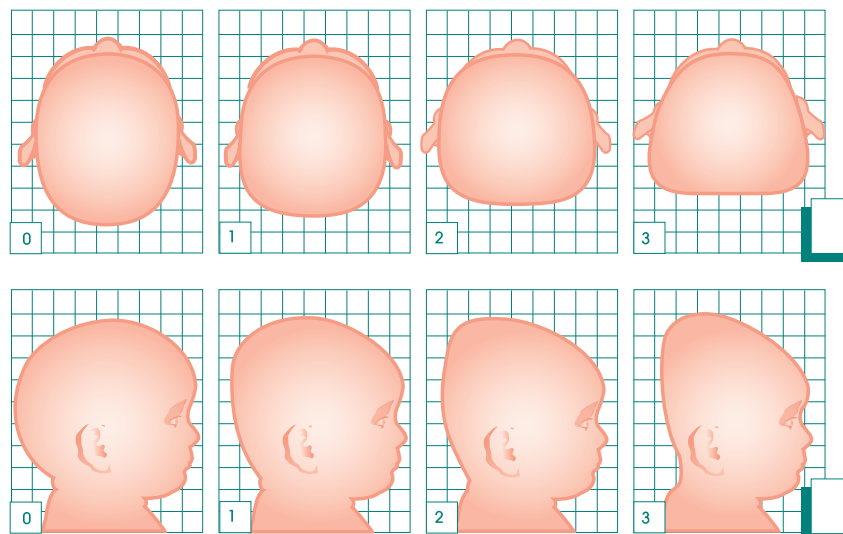
Frontal (Supine)

Frontal (Prone)

Frontal (Sitting)

Frontal (Standing)

Score: \_\_\_\_\_



The severity assessment Scale is used with permission by Tim Littlefield, Cranial Tech. Tim was asked by Anna Öhman 2016.

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**Information/Advice to give**

More tummy time when the infant is awake, 60-90 minutes a day as a goal. Start with a few minutes and gradually increase the time.

Avoid prone position when the infant is awake.

Avoid time by the infant spend on the flat part of the head.

Avoid car safety seat outside the car.

Avoid baby carrier or minimize the time in it.

If/when using baby carrier put it so all interesting things are on the opposite side to the infants favoured side.

Recommend side device, if the infant stays good on the side, this can be the most effective way to get a better head shape. Use it when you can check on your infant, when the infant can turn over to tummy stop using the side device.

If the infant is >6 months of age, healthy and can turn by itself, the infant can sleep in any position it choses including on the tummy.

Recommend a special pillow (at present the Mimos breathable pillow February 2017) if the infant stays in neutral position only and it is not possible to make it change sides of the head.

**Need for referral**

To physiotherapist when suspected torticollis or need for help with plagiocephaly/brachycephaly. In Sweden parents can make their own referral to the physiotherapist. Referral to Craniofacial department in Gothenburg if suspected craniosynostosis. Families living in VG-region (the South West region of Sweden) can send own referrals.

It is also possible for Health Care staff in Sweden to send photos to the Craniofacial department for assessment. Be sure that the photo shows what you see, the angle of the photo can give different results.

**Follow up**

It is important to know that infant head shape can change the first year of life. It can be harder and take longer time for an older infant, but it is not impossible.

When the infant has achieved a symmetrical head shape it is important to vary the position to maintain the symmetry. Otherwise there is a risk of developing plagiocephaly/brachycephaly again.

For the young infants (0-3 months) the head shape can change very quickly. It is important to vary and observe to maintain the symmetric shape.

## TORTICOLLIS

**Does the infant side bend (tilt) the head to one side.**

No remace *Infant holds head straight*

**Infant side bend (tilt) the head to the right.** *Infant tilt the head with the right ear towards the right shoulder.*



**Infant side bend (tilt) the head to the left.** *Infant tilt the head with the left ear towards the left shoulder.*



**Suspected limitation of head rotation.** *Infant seem to have a problem to rotate the head to left or right*

**Suspected asymmetry muscle function/strength of the neck.** *Hold the infant in a horizontal position with both left and right side up, if there is an obvious difference you can see it.*



**Referral to physiotherapist when suspected torticollis.**

There is evidence that early start of treatment gives shorter treatment time.

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