If you need assistance, please contact a pediatric physical therapist for further advice and assessment.

This brochure is developed and owned by The Pediatric Section of the Norwegian Physical Therapy Association (BUF), reviced 2013, 2017, 2019 and 2022. barneogungdom@fysio.no. Photo: Marit Bjørlykke.

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NORSK FYSIOTERAPEUTFORBUND

Skull Asymmetry and Side Preference

It is recommended that infants sleep on their backs to prevent SIDS [1]. Infants sleep many hours per day and some may develop a preference for one side or the other. Since an infant's skeleton is soft and is easily shaped by extended pressure against its surface [2], an infant that is always placed in the same position may develop an asymmetrical skull as well as asymmetrical neck movement and neck strength [2]. This is called plagiocephali and positional muscular torticollis.

When the infant is awake, movement variation is important to encourage development and prevent skull and neck asymmetry [3].

How to prevent skull and neck asymmetry?

- Position the infant in such a way that the infant is encouraged to look towards both sides. The infant is stimulated by light, sound and touch.

- Vary how you carry the infant and on which side you feed the infant. Vary which side of the bed is the head-end.

- Encourage tummy time several times a day. The weight of the head is heavy for small bodies, thus short periods of tummy time several times a day is recommended until they are strong enough to manage longer stretches at a time.

- If your baby struggles with tummy time, you may give support by placing your hand on the infant's pelvis or by positioning the elbows under the shoulders. Being face to face while the baby is on the changing table is encouraging for the infant.

- Infants may also benefit from adjusting to tummy time by laying on your chest while you are on your back.

- Laying the baby on its side is also a good position for playing and eye contact.

What to do if the infant has already developed skull asymmetry and a side preference?

When the infant is sleeping, position the infant with the face towards the non-preferred side. You may place a folded towel or blanket under the infant's preferred side, from under the hip to under the shoulder. Thus the body weight is adjusted slightly to the non-preferred side, although still laying on its back. This might make it easier for the infant to rest facing the non-preferred side.

When the infant is awake, make sure the infant is stimulated towards the non-preferred side in everyday situations [4]:

- When carrying the infant over your shoulder.
- When carrying the infant in a side lying position, the favorite side should be uppermost.
- Position the infant so that it has to turn towards the non-preferred side to see you or follow movement and sound.
- Make eye contact with the infant and encourage movement towards the non-preferred side.
- When interacting with the infant, use your eyes, smile, voice and toys to encourage the infant's movement towards the non-preferred side. You might gently assist the movement with your hand.
- Tummy time at least three times a day to reduce pressure towards the back of the head and to strengthen the neck [5].