

# Positional Skull Deformities In Infants

McKenzie Pediatrics July 2003

## **“My Baby Has A Flattened Head!”**

You're not alone. Since 1992, when the national “Back To Sleep” program began advising parents to put their babies to sleep on their back in order to reduce the risk of SIDS, as many as half of babies have had temporary and mild flattening of one side of the back of their head. In the past 11 years, the number of SIDS deaths has declined by over 40% in the United States; the decrease would be greater except that one-fourth of parents still place their babies on their tummies to sleep.

The back of the head, known as the **occiput**, is prone to flattening in babies due to the relative “softness” of the skull bones. There are various names for such flattening, including Benign Positional Molding, Occipital Plagiocephaly (plagiocephaly is Greek for “oblique head”), Posterior Plagiocephaly, and Deformational Plagiocephaly.

## **How Does The Flattening Occur?**

Such flattening may be present at birth as a result of molding in the womb or during labor. A delivery assisted by forceps or vacuum also may cause flattening. These are usually temporary conditions, and the baby's head is usually rounded out within the first week. Parents should thereafter alternate the baby's head position during overnight sleep.

However, if the baby is placed to sleep on its back with its head turned to rest on the flattened side, the flattening will likely persist or possibly worsen. Parents and nurses need to take care to position these babies to rest with their head slightly turned to the rounded side.

Babies with flattening at birth, if the birth was traumatic, may also have suffered injury to the sternocleidomastoid muscle in the neck. Such injury, usually on the same side of the flattening, causes “wry neck” (**torticollis**), and, if not recognized in the first few months, can cause muscle shortening and cause the baby not to be able to turn its head normally. Therefore, the baby continues to sleep with its head resting on the flattened side, which, of course, worsens the flattening!

## **What Do We Do Now?**

Skull X-rays are generally of little benefit, unless the pediatrician wants to be sure your baby's skull bones are not fusing together prematurely. This is a rare condition. Generally, if the head is flattened on one side, parents are simply encouraged to begin placing the infant to sleep with its head resting on the rounded side 5 nights a week. Also consider changing the position of the crib to require the baby to look away from the flattened side to see the parents or other interesting things within the room. Within 1-3 months, if there is no torticollis, the flattening improves. Improvement also generally occurs when the infant developmentally is old enough to be spending more of its daytime upright, often by 5-7 months of age.

If there is torticollis, neck exercises should be done with each diaper change, 3 repetitions per exercise. One hand is placed on the baby's upper chest, and the other hand rotates the child's head gently so that the chin touches the shoulder. Hold this position for 10 seconds, then rotate the head toward the opposite side and also hold for 10 seconds. Next, tilt the head so that the ear touches his or her shoulder, and hold for 10 seconds...then repeat to the opposite side.

**What If It Doesn't Get Better?**

If your baby's head flattening deformity fails to improve, or worsens, despite all of the above techniques, he or she may be referred to a specialist known as an occupational therapist. In severe cases, special skull-molding helmets might be employed. Surgery is a rarely needed last resort.

