

Infant Flat Head Syndrome

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Chavy just gave birth to Shmuel, a beautiful 8.5 lb boy with a normal pregnancy and delivery. Mom is elated as this is her first child and just like most new mothers she experiences excitement, fear, and nervousness all wrapped into one. Shmuel did not come with an instruction manual. Guidance from doctors, grandparents, and friends rushes in as Chavy must now care for this child's every need. At four weeks old Chavy notices that Shmuel only looks to the right and that the back of his head is flattening out. The pediatrician tells Chavy "your child will grow out of it." She is not satisfied with the nonchalant, cavalier answer, so she turns to friends and family for guidance and support.



Tummy time is crucial

Devorah just gave birth to triplets—Mazal Tov! This is her first pregnancy; two girls and one boy were born four weeks early, weighing 4 lbs each. After some time in the NICU, the children were discharged home to mom who needed help from a baby nurse to take care of the newborns. The nurse did not change positions of the infants as needed; being kept on their backs for too much of the day, flat head quickly set in to the boy, Yaakov.

Esther just gave birth and had to return to work when her newborn was 12 weeks old. At the school where she worked, there was a day-care center. Esther left her child for six hours a day periodically checking and feeding her. At six months of age, Esther noticed that her child, Sarah developed a flat head and tilted neck. She went to a therapist to find out how this happened and what she can do. The therapist asked if the child was placed in one position, or device such as car seat,

much of the day. To remedy the situation, the therapist said, she must change positions often.

Flat Head Syndrome (Plagiocephally) or misshapen skull, as it is commonly referred to, is the most common type of skull deformity in infants. It is usually noticed by caregivers at about six to ten weeks of age, because there is an asymmetrical shape of the head, misalignment of the ears, and facial abnormalities. Quite often, Flat Head Syndrome is accompanied by Torticollis (tilted neck), where an infant is limited in neck range of motion, weakness, and preferential head positioning.

The Back to Sleep Program encourages parents to have their infants sleep on their backs (supine position) to reduce the risk of Sudden Infant Death Syndrome (SIDS). It is considered one of the most successful programs instituted by the American Academy of Pediatrics. The rate of SIDS in the United

States has decreased by over 40% since 1992, saving thousands of babies. However, as an unintended consequence, the increase of skull deformity has increased to epidemic levels. The Back to Sleep Program coupled with inappropriate decreased amount of tummy time has led to one in five infants being diagnosed with some form of skull deformity.

The infant's skull is susceptible to deformity for the following reasons:

The plasticity (soft skull) of a newborn makes it very susceptible to external pressures in the womb, during birth, and after birth with prolonged time on the back. Secondly, the lack of mobility of an infant and torticollis (tilted neck) issues, because of weakness and/or tightness in the neck muscles, may predispose newborns to skull deformities.

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A difficult pregnancy and delivery may contribute to skull deformity; breech presentation in utero or multiple birth infants. Visual field deficits may be another issue that can cause too much time that an infant looks to one side thereby presenting with skull deformity. Finally, lack of tummy time early on after birth can be one of the most deciding factors in skull deformity.

Tummy time is a key component in preventing and treating Flat Head Syndrome. It is the single most effective way to build the muscles a baby needs to roll, sit, and crawl. Tummy time is crucial as much as possible while a child is awake from the very first day. It contributes to the development of the muscles in the neck and shoulders while preventing tight neck muscles and the development of flat areas on the back of a baby's head. Tummy time can be scary for an infant and crying is common at first, however, it is quickly quelled if it is instituted on a regular basis in a fun way. Car seats or other positional devices should not be used for prolonged periods of time as they contribute to torticollis and flat head.

Physical therapy may be an effective option to help infants who have Flat Head Syndrome and torticollis. Therapists may be able to facilitate optimal positional alignment for infants. Stretching tight muscles, strengthening weak muscles, and gentle massage are all part and parcel of a quality therapy protocol. Babies may cry at first but just like tummy time, most get



Helmets are safe and effective

accustomed to it. Proper education for parents is essential to implement a home exercise program to help correct or prevent flat head and torticollis.

The key to quick and effective results is if a parent sees a problem not to "wait and see." Intervention and education early on can lead to quick corrective results. Therapists may also recommend certain positional devices that can assist in certain cases such as the Turtle hat, LifeNest mattress, and in severe cases helmets are recommended.

Helmets for infants with Flat Head Syndrome are commonly used today when therapy or positional devices are not effective to correct flat spots. It is the last resort, however, when used properly evidence has shown it to be safe and effective. Helmets are used in babies from 3-18 months of age, worn 23 out of 24 hours a day, with one hour rest for hygiene and cleaning. They are used to relieve pressure in certain areas and allow for the skull to

fill out in certain spots. It is usually worn for 2-3 months with weekly/bi-weekly adjustments at the office of the fabricating orthotist.

Flat Head Syndrome is becoming a growing problem within the community that can be fixed. When treated early, you can avoid a baby growing into adulthood with imperfections such as flat head, misaligned ears, and asymmetrical facial features. Parents need to be aware that this syndrome is completely fixable; the earlier it is treated by a specialist the greater your chances of minimal intervention and maximum results to prevent lasting adult deformity.

"Wait and see" and "your child will grow out of it" may not be the correct approach for your child. Parents should take a proactive approach when it comes to their child's wellbeing and do their homework in searching out effective treatments. Choosing a method that best fits your child may not always be clear or obvious; don't be afraid to ask your pediatrician or therapist questions. At the end of the day, an infant's best chance at putting its best foot forward is the concerted effort and diligence of the parent. □

Dr. Abe & Rikki Kopolovich are the Directors of Rehab at Therapy-In-Motion, PC, a full-service pediatric/orthopedic outpatient Physical/Occupational Therapy Rehab Center in Boro-Park. Dr. Abe Kopolovich, DPT specializes in the treatment of Flat Head Syndrome & Torticollis. 15 years of experience and 4,000 successful infant outcomes and counting. For more information on Flat Head Syndrome and Torticollis, please call (718) 435-7000 or visit www.Therapy-In-Motion.com.