

# Promising New NICU Technology

**A DEVICE BEING TESTED AT BAYLOR DALLAS MAY HELP PREVENT FLAT HEAD SYNDROME IN PREMATURE BABIES.**

BY DENISE DAMRON

## PREMATURE BABIES NEED

quite a bit of tender love and care to survive and grow strong, but their developing bodies also require a delicate balance of medical care.

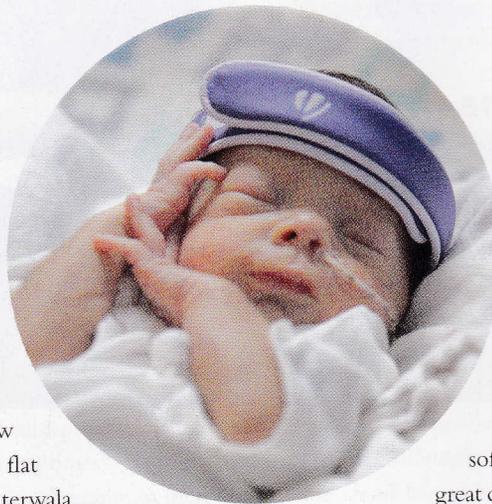
Physicians at Baylor University Medical Center at Dallas have been testing a new liquid-filled bonnet designed to prevent flat head syndrome. According to Mustafa Suterwala, MD, a pediatrician on the medical staff at Baylor University Medical Center at Dallas and principal investigator of the Invictus Medical Cranial Support Device, “we have a huge problem with misshaping of the head, especially in premature babies because the recommendation is to lie them flat and ‘back to sleep’ and that leads to flattening of the head.”

Dr. Suterwala says that 50 to 60 percent of the premature babies he sees in Baylor Dallas’ Neonatal Intensive Care Unit (NICU) have positional plagiocephaly, a condition characterized by an asymmetrical distortion (flattening of one side) of the skull, and will need a helmet later on. “The device we tested is preventive. In the past if babies had flattening of the head we would use a helmet, which is very big and bulky.”

The bonnet is a gel-shaped band that fits around the baby’s head like a headband and spreads the pressure points to prevent flattening of the head. As part of the study, Dr. Suterwala used the device on 50 babies for six hours a day over a five-day period.

## Back Sleeping Reduces SIDS

Pediatricians have seen an increase in babies with plagiocephaly since 1992, when the American Academy of Pediatrics began recommending babies sleep on their backs. Since the National Institute of Child Health and Human Development (NICHD) launched the



“Back to Sleep” campaign (now called Safe to Sleep) in 1994 to educate parents and caregivers about ways to reduce the risk of Sudden Infant Death Syndrome, the rates of SIDS have been cut in half.

Premature babies are more prone to positional plagiocephaly because their skulls are softer than those of full-term babies. They spend a great deal of time on their backs without being moved because of their medical needs and extreme fragility after birth, which usually requires a stay in the NICU.

## Awaiting FDA Approval

“Parents were very happy, because compared to wearing a helmet later it’s a huge improvement,” says Dr. Suterwala. “I’m pretty excited about the product because plagiocephaly is a significant problem in general for babies in NICUs and if you have a device that could prevent it, it would be very beneficial. I like the simplicity of the device and the utility it has for my patients.”

The device is expected to receive FDA approval later this year and will be available to hospitals across the country. ☐☐



## POINTS OF CONTACT

For information on outpatient pediatric therapy for cranial misshaping at Our Children’s House at Baylor, visit [BaylorHealth.com/OCH](http://BaylorHealth.com/OCH).

To learn more about the Safe to Sleep education campaign, visit the National Institute of Child Health and Human Development at [nichd.nih.gov](http://nichd.nih.gov) and search for “Safe to Sleep.”