Lack of time on tummy shown to hinder achievement

August 6 2008

The American Physical Therapy Association (APTA) is urging parents and caregivers to ensure that babies get enough "tummy time" throughout the day while they are awake and supervised, in light of a recent survey of therapists who say they've noticed an increase in motor delays in infants who spend too much time on their backs while awake.

In the national survey of 400 pediatric physical and occupational therapists, conducted on behalf of Pathways Awareness, a non-profit group dedicated to early detection of motor delays in children, two-thirds of those surveyed say they've seen an increase in early motor delays in infants over the past six years. The survey was conducted with the assistance of APTA's Section on Pediatrics and the Neuro-Development Treatment Association (NDTA).

Those physical therapists who saw an increase in motor delays said that the lack of "tummy time," or the amount of time infants spend lying on their stomachs while awake, is the number one contributor to the escalation in cases.

APTA spokesperson Judy Towne Jennings, PT, MA, a physical therapist and researcher from Fairfield, Ohio, said, "We have seen first-hand what the lack of tummy time can mean for a baby: developmental, cognitive, and organizational skills delays, eye-tracking problems, and behavioral issues, to name just some complications." She added, "New parents are told of the importance of babies sleeping on their backs to avoid SIDS, but they are not always informed about the importance of tummy time."

Jennings explains that because new parents now use car seats that also serve as infant carriers – many of which fasten directly into strollers and swings without having to remove the baby from the seat -- this generation of babies spends prolonged periods of time in one position. She recommends that awake babies be placed in a variety of positions, including on their tummies, as soon as they return home from the hospital. "Ideally, babies should be placed on their tummies after every nap, diaper change and feeding, starting with 1-2 minutes," she said. Jennings is co-author of the research, "Conveying the Message about Optimal Infant Positions," Physical and Occupational Therapy in Pediatrics, Volume 25, Number 3, 2005.

In 1992, the American Academy of Pediatrics launched its successful "Back to Sleep" campaign, which helped reduce the number of sudden infant death syndrome (SIDS) cases by educating parents on the importance of putting infants to sleep on their backs, rather than on their stomachs. While putting infants to sleep on their backs is still vitally important in reducing infant deaths, according to APTA, many physical therapists believe that there should be more education to parents on the importance of "tummy time" while babies are awake and supervised.

APTA spokesperson Colleen Coulter-O'Berry, PT, MS, PCS, a physical therapist at Children's Healthcare of Atlanta, said flattening of the baby's skull is another side effect of too much time spent on the back. "Since the early 1990s, we have seen a significant decrease in SIDS cases, while simultaneously witnessing an alarming increase in skull deformation," she said. Coulter-O'Berry cites a recent study published in Cleft Palate-Craniofacial Journal 45(2): 208-16, in which it was reported that several risk factors for misshapen heads were more common among babies born after the "Back to Sleep" initiative. The study, which took place at Children's Hospital and Regional Medical Center in Seattle, Washington, found that prior to 1992, the prevalence of misshapen heads among infants was reportedly 5 percent. In recent years, craniofacial centers and

primary care providers reported a dramatic increase of up to 600 percent in referrals for misshapen heads.

She also points out that the combination of babies sleeping on their backs, as well as spending an inordinate amount of time in infant carriers that double as car seats, puts pressure on the head which can create a flattening of the skull. In extreme cases, babies are fitted with a custom-molded band that gently guides the baby's head into a more normal shape.

According to Coulter-O'Berry, parents can increase tummy time by incorporating exercises into routine activities such as carrying, diapering, feeding, and playing with baby. "Increasing the amount of time your baby lies on his or her tummy promotes muscle development in the neck and shoulders; helps prevent tight neck muscles and the development of flat areas on the back of the baby's head; and helps build the muscles baby needs to roll, sit and crawl," she said. Coulter-O'Berry is co-author of Tummy Time Tools, an informative brochure that provides caregivers ideas and activities to ensure that babies get enough tummy time throughout the day. The brochure is now offered on the APTA Web site, www.apta.org/consumers.

Karen Karmel-Ross, PT, PCS, LMT, pediatric clinical specialist at University Hospitals Case Medical Center, Rainbow Babies and Children's Hospital in Cleveland, Ohio and national lecturer on muscular torticollis (neck muscle imbalance), says that one way to engage in tummy time is to spend time during each diaper change encouraging the infant to find, focus and follow the caregiver's face or a toy with their eyes looking up, down, left and right. "It's important to get our infants out of devices that constrain mobility and onto their tummies so they can focus on neck muscle balance as they interact with their caregivers," she said.

Source: American Physical Therapy Association