



Illinois Developmental Therapy Association

What every Parent and Provider needs to know about Sudden Infant Death Syndrome

Article Written by Natalie Farmer, Owner of JumpStart Development Inc, Developmental Therapist and Education Coordinator for SIDS of Illinois, Vice President of IDTA

Just the words “Sudden Infant Death Syndrome” evoke fear. Fortunately more and more is being learned about the reduction and hopefully someday prevention of this terrible tragedy. Still a dreaded syndrome, in which a child between 1 month and 1 year of age suddenly dies for no apparent reason, remains an all too real threat. It’s the leading killer of babies more than a month old, striking more than one in every 2000 infants before their first birthday according to statistics from the National Institute of Child Health and Human Development (NICHD). While certain groups of babies seem to be especially vulnerable, such as striking boys slightly more than girls, and two and a half times more African American babies than Caucasian. Experts still can not predict which newborns will become victims but that does not mean that as parents we

are powerless against it. There are several ways that we can help to lower the risk for our little ones. If you take these steps today you and your baby will sleep better tonight!

The number one most modifiable risk factor that you can do is to always lay your baby on their **Back** both night and nap time. If your baby sleeps on their belly they are more likely to re-breathe their old or stale air until their oxygen supply runs low. Research has indicated that babies are being born with an immature or compromised cluster of cells in their brainstem that controls their sleep/wake cycle, blood pressure and respiratory system. It is felt that a build up of carbon dioxide in the baby’s system can trigger this immaturity to malfunction. Another theory from research is that babies may not produce adequate serotonin, a brain chemical that transmits nerve impulses that would cause baby who wasn’t getting enough oxygen to wake up. The first symptom and the only result of these malfunctions is death, so there are no sec-

ond chances in implementing ways to lower the risk.

Remember to let all your caretakers know that they need to lay your baby down for sleep on their back at all times. A recent study by the NICHD found that babies who are back sleepers are 18 times more likely to die of SIDS if placed on their belly for sleep even just once.

Share Your Room and Not Your Bed!! Adult beds and couches are not meant for infants and can increase your baby’s risk of SIDS by as much as 20 times, especially if they are sleeping on their tummy and the parent falls asleep with them there. Sleeping with infants also increases the risk of entrapment or accidental suffocation. A baby can wedge into a crack in the cushions where there is no air or be over-layed by a parent or even sibling. Infants that nap or sleep with siblings are nearly 5 ½ times more likely to die from SIDS.

SIDS of Illinois has a firm stance on co-sleeping. The

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overall consensus of all SIDS agencies is that babies should co-room with parents for the first 6 months but not co-sleep for any reason. Bringing baby to bed for comfort or breast feeding is acceptable but placing them back in their own sleep space after that is crucial.

Baby should sleep in their own safe sleep space. This includes having a crib that has been approved by the Juvenile Products Manufacturers Association. Cribs should only have a secure firm mattress, fitted sheet and baby. No loose blankets, comforters, or bumpers (yes even bumpers!). Having loose bedding, bumpers or soft toys in the crib with baby increases the chances that they will trap their own air and hinder fresh air supply putting them more at risk as described above. Use a Halo Sleep Sack or another sleeper that keeps them warm but zips around feet and torso leaving arms and head free.

Do not overheat baby with over dressing or using increasing air temperature in baby's room. It is felt that extra warm air lulls baby in deeper sleep, which may make them more vulnerable or that it may dull their respiratory controls, so they may not be able to respond to conditions that might make their breathing and heart rate slow down.

Do not smoke around baby!! Mother's that smoke during pregnancy increase baby's risk of SIDS by three times. We also now know that if one or both parents' smoke in the home it increases baby's risk by 2 times. Cigarettes are well known emitters of carbon dioxide putting the baby's respiratory system more at risk.

Research has indicated that pacifier use may lower the risk even more. The link needs to further be investigated but Dr. Hauck of the Univ. of Virginia suggests that after a 2 year study of more than 500 hundred infants that sucking on a pacifier may ensure that baby stays face up and that sucking may keep his airway open and his brain more alert.

We are very fortunate in Illinois to have an agency such as Sudden Infant Death Services of Illinois that provides education and training to parents, providers and medical professionals at little to no cost. Promoting awareness and knowledge of the new research out there is our best chance at spreading the word to all new and expectant parents.

Please visit our website at sidsillinois.org for more information and how to get free SIDS educational materials for your agencies or families that you work with.

Remember that several of the kiddos that we work with are more at risk due to lower muscle tone that make it harder for them to move out of compromising positions and babies born early already have compromised lungs and respiratory systems.

Natalie is a mother of a son that died of SIDS (Holden James 2-19-2003-6-27-2003) and uses what ever chance she gets to educate and inform parents and providers on how to lower the risk for SIDS and accidental suffocation. For further information or questions feel free to email at Natalie@jumpstartdevelopment.org or natalief@sidsillinois.org



Developmental Therapist Opening

New and upcoming agency is looking to hire personable, kid loving and responsible developmental therapists.

Are you currently a developmental therapist for the Early Intervention System? Are you tired of going it alone or working for an agency that just doesn't value you or pay what your worth? If any of the following apply to you then this is just the perfect agency for you to join.

We are offering the following for the right DT's:

- Great Pay (\$23-\$30 per hour)
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- And many more things

Qualifications:

- Must have reliable transportation to get from client to client (Required)
- Must be already credentialed and in the CBO system (Preferable)
- Must have the proper education and training as a developmental therapist (Required)

*If you meet the above qualifications please e-mail us your resume at employment@illinoisiei.com or fax it at 847-787-5323

CORE STABILITY

How poor posture and decreased stability can impact a child's development

By Elizabeth Benney, DT CIMI and Mary Kochanski, DT CIMI

For many years, I've conducted developmental assessments for the Early Intervention Program and have seen a rise in the number of children with poor posture. It seems reasonable that the alarm over SIDS and subsequent decrease in "tummy time" for many children may have impacted this—certainly gross motor milestones have been pushed back a bit in recent years. However, I am called to the home in most cases not because of motor delay but because parents are concerned about their child's language skills. When I arrive, I see a child who avoids my eye contact, who doesn't yet have words and who doesn't seem to respond to communication cues. I see a child who can't seem to use his hands well or play well with toys and often scatters or throws toys. This child is easily frustrated or agitated, with a history of not quite meeting his gross motor milestones or a child who never went through an appropriate stage of "crawling." (**Yes, crawling IS important!**) I see a child who sits with rounded trunk, extended legs or tilted pelvis, or a child who constantly "w-sits." I see a child who does not like to move out of sitting position or a child who cannot seem to sit still. In many cases I see the something that links all of these behaviors—I see a child with poor core stability.

Stability is integral to a child's development. It comes from the "core" which refers to a child's trunk. It is associated with trunk strength and yet a child may have strong trunk muscles but still lack stability. Why is core stability important? There are many reasons and although I cannot cover all of them in this article, I will try to review the ones I think are most important.

Comfort and security: The most obvious one is that a child needs to feel stable in order to feel comfortable. A child's brain is pulsating with activity—receiving and processing messages from the body at a phenomenal rate. One of the most urgent messages the developing brain sends out is "explore, explore, explore!" It is through exploration and play that a child is able to learn. However, a child must feel a level of comfort in order to meet the challenge of independent exploration. A child needs to be stable in order to receive and process information from his environment appropriately; a child cannot learn functional skills without the appropriate sensory processing skills in place. A child needs to be stable in order to learn from his own body how it moves and interacts with people and toys within his environment. The world can't revolve around him randomly...he must move within it and be able to control the movement.

Movement: When a child who is placed on his tummy begins to lift up his head and chest and bear his weight on his hands, he is beginning to develop core stability. When he is able to shift his weight from one hand to the other in order to reach for a toy, his brain has recorded a valuable (albeit unconscious) lesson in body awareness and transitional movements—and by repeating this activity he learns how to consciously activate his muscles in order to change his position without losing balance. Moving up to his hands and knees and starting to crawl helps that child further to process not only his own body and how it moves, but gives him a more appropriate visual

perspective, and teaches him how the world moves around him and how to navigate through that world with confidence. Once he is stable and knows he can regain his stability, he will be able to do so without thinking about it and put his thoughts toward interacting functionally with the more interesting objects and people in the world around him.

Atypical Postures ("w-sitting"): If a child does not have core stability, his posture will suffer. The muscles of his body will begin to compensate in order to keep him upright and assist him to play and explore, as his brain is urging him to do. He may begin to clench his feet, curl his toes, extend an arm or hand out stiffly to the side, elevate his shoulder(s), keep his chin tucked—"w-sitting" is a typical example of a child who has learned a compensatory posture that keeps him upright without requiring him to activate his trunk muscles. These are all warning signs. This child is learning to acquire atypical skills in order to continue to explore and learn, but just like building blocks—if the bottom row is unstable, the building can only go so high before toppling. A child who is developing atypical compensatory motor skills will soon have difficulty in other areas of development.

An example of this is fidgetiness. Poor bilateral skills, decreased body awareness, ineffective use of the extremities (constriction of legs, feet, arms in an attempt to compensate for core stability)—

these can all lead to poor posture and fidgetiness, which is sometimes the body's way of seeking appropriate sensory input. If a child is



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stable, the core muscles are activated and working efficiently and the muscles in the extremities are not clenched but functioning appropriately. Fidgetiness or sensory seeking behaviors can distract a child and prevent him from acquiring skills in an effective manner. Poor posture can also impact visual awareness and functional vision skills (more below on this.)

Play skills and bilateral skills: If a child is extending an arm or otherwise compensating for core stability, one of the most obvious repercussions is that he will have delayed bilateral skills—that is, the ability to use both hands cooperatively. Parents always ask me whether I think their child is right-handed or left-handed. Frankly, this is not my primary concern with child under three years old. I'm much more concerned with how the child is using both hands.

Why? Because a very important cognitive milestone is called “relational play” and it means bringing two objects together purposefully. It can be observed when a child reaches for an object unilaterally and transfers to the other hand, when a child claps his hands together or bangs two objects together, or when they begin to hold a container and twist it off using both hands in a cooperative effort to accomplish this task. You can spot difficulties in this area when you see a toddler who continues to be focused on one object at a time (rather than holding and comparing two objects) and this can delay development of relational play—a very important milestone! Children who need to extend an arm to balance themselves with have difficulty accomplishing bilateral tasks and will find it simply too challenging to play with more

than one toy at a time. The result is that they will avoid these challenging tasks and ultimately test out as having cognitive delays (e.g. delay in level of play skill) when their delay is based primarily on a fine motor deficit that can be very easily corrected.

It may seem silly to insist that a child learn to bang two blocks together. But if he does that, he may notice that these two objects look differently, feel differently, and he might take a chance and see what might happen when he puts them together. Bingo! His brain has just registered the emerging concepts of spatial awareness. And something else—a very important neurological exercise has just occurred. This child has just acquired the ability to use the muscles of his hand and his arm on either side of his body cooperatively—and in the process has begun to learn how to effectively utilize both sides of his brain in working together efficiently to accomplish a task.

Behavior and social skills: How can behavior be impacted by poor posture? A child's behavior can be affected by his learning experience and his ability to accept new information. Poor posture can affect a child's stability and thus his comfort with changes in his environment or introductions to new environments, and new people. Human exchange—whether via facial expression, eye contact, subtle signs of communication as well as direct verbal communication and visual cues—is extremely dynamic! If a child has poor stability or poor sensory organization, these dynamic learning experiences can be

stressful, disorienting, and overstimulating.



If a child has delays in language skills, then try to observe his preference for play. Is he self-directed? Does he avoid social interaction? Does he tune out when adults address him? It may be that social interactions are simply too challenging for that child.

Children are naturally drawn to other children and adults. If there is avoidance, we need to look at reasons why through observing their behavior, particularly in play. Children tend to dislike and avoid stressful activities. When a child avoids social interactions, he also loses out on the valuable lessons in social communication and social expectations that are gained through these interactions.

As Developmental Therapists, we focus on language skills not only in terms of actual “speech” but more on a child's ability to communicate and to recognize communication and social cues, especially in relation to behavior and social understanding. Language difficulties in this perspective can have significant impact on behavior. If a child cannot express his needs, his level of frustration increases, often they begin to communicate physically by hitting or biting, which leads to a myriad of other potential language and behavioral problems and challenges for the parent.

Again, human exchange is dynamic and can be challenging. If a child avoids these exchanges, then perhaps we need to look at how to help that child organize himself and learn core stability, rather than addressing the deficit in language skills head-on

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through therapy sessions of enforced verbal exchanges.

Language skills: Let's try an exercise together while you're reading this article. If, unlike most of us you are not already slumped over at your desk, then assume a poor posture. Slump forward and then try to take a deep breath in and out again. It's not too easy, is it? A developing child needs to develop strong enough abdominal muscles to support the diaphragm so that he can coordinate his breathing and be able to take deep enough breaths in and out to produce sounds. Speaking is all about exhalation.

The most common trait among all the children whom I have assessed over a period of 10+ years is that children with poor core stability have correlating deficits in their expressive language skills. Sounds are produced in the diaphragm and quality of sound production is directed related to breathing. If it is too challenging for a child to coordinate their breathing sufficiently to produce sounds, this will delay acquisition of speech. We can try to give them visual cueing skills (signs) but learning to sign may be more challenging for the child who cannot bring both hands together (poor bilateral skills) to sign for "more." Many forms of early signing involve the use of both hands.

Vision: How a child sees his world: Another disturbing trend is the increase in delays in social communication—my own measure of how a child is doing in this area is to observe his response to verbal requests and understanding of social phrases like "uh-oh!" and "no-no" and other social cues. Why would a child who may have a large vocabulary consisting

almost primarily of nouns, have difficulty communicating socially? Perhaps he is not learning the words related to social cues, feelings, emotions, rules, concepts, or functions. Why not?

Let's look at this issue from another angle; let's take a look at vision. It is my experience that, even if a child has functional responses to sensory input and there are no alarming red flags, they may still have sensory challenges that impact their ability and desire to sustain social interaction, which will subsequently lead to delays in receptive skills and in their ability to learn social cues and develop age appropriate social understanding. My observations of children with poor posture and core instability will almost always show that child has a preferred visual field with subsequent limitations. It seems possible then that this visual preference might also impact their ability to sustain eye contact.

Vision specialists tell us that an infant is born with dominant peripheral vision, but that gradually his focal vision takes precedence as he establishes eye contact and discovers it is more functional to use his eyes to track and observe the world around him. The development of focal vision is integral to a child's ability to engage socially—this can be observed when a child first establishes eye contact with his parent. The ability to sustain eye contact leads to development of "affect" and understanding of social and communicate cues. When you observe a child consistently lying on the floor to play or to look closely at objects or when you see him lining objects up to regard them, this visual behavior may be giving you a clue to how he sees the world. Decreased stability can make it more challenging

for children to use their vision appropriately. It would make sense therefore that atypical development of vision would impact how a child is able to engage and how they learn language and social cues from these types of interactions. Again, if poor core stability and poor posture lead to atypical visual processing, then perhaps we need to address the instability, not the vision.

Instead of focusing on splinter skills that the child has not yet accomplished, we need to address the cause of the delay—we need to focus on posture, provide supports to help that child stabilize, and provide play activities that support change in how he interacts with his environment, and thus can learn from it.

As Developmental Therapists, we assess a child's GLOBAL development in order to detect any specific needs that may be challenging and impacting the child's ability to acquire skills. Until we address these needs directly, such as core stability, the child may gain skills but will continue to experience challenges in the learning process.

Elizabeth Benney & Mary Kochanski are Developmental Therapists with several years experience working with children with developmental delays or disabilities. They are also certified Infant Massage Instructors, certified Listening Therapists, and IL-credentialed Evaluators for the Illinois Early Intervention Program. They are working on a future article that addresses specific ways of improving core stability through play.

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