In the first three years of life the brain goes through an incredible growth spurt, producing more than a million neural connections every second. These connections, all of which will inform future social and emotional health, depend on our experiences and interactions with others.

“The brain is a social organ, co-constructed with others,” says Gerard Costa, PhD, the founding director of the Center for Autism and Early Childhood Mental Health at Montclair State University in New Jersey. “Most of what we become as individuals, and most of the unique wiring of our brains are experience-dependent. This wiring begins and is defined by the relationships in those earliest years when the brain is growing at an unparalleled rate.”

Costa is a faculty expert on Pediatrics Supporting Parents, a NICHQ-led initiative that seeks to improve pediatric primary care to help families foster social emotional development during these critical early years. As a faculty expert, Costa provides expertise on the role pediatricians and healthcare providers can play in helping families support their children’s social and emotional health.
“Oftentimes, we think of social and emotional development as skill acquisition,” says Costa. “We say, if only we could teach a child not to act out. Or, if only we could give a child the skills to make a friend or resolve a conflict. But even before we start looking at these skills, we need to begin with the fundamental understanding that children first need to develop the capacity for self-regulation.”

In simple terms, self-regulation is the ability for us to manage our thoughts, feelings, and actions. It helps us to remain calm and alert, and supports the capacity to “respond”, rather than “react” in the face of our many strong emotions and stressors in life and the environment. For example, self-regulation helps a child to calm herself or himself before a tantrum or to solve a problem without giving up. Without self-regulation, children struggle to develop meaningful relationships, communicate reciprocally, and succeed at school or work.

This makes self-regulation essential to early childhood development. So, how can pediatric health professionals help parents and caregivers support self-regulation in their children? Below, Costa explains why, from the earliest moment of life, we need to engage families in conversations about self-regulation, and he offers a resource for inspiring those conversations.

Beginning at birth, parents support self-regulation

When babies are born, they have little ability to self-regulate; however, from infancy, parents and other primary caregivers help children learn through a process called co-regulation, explains Costa. By using their voice, movements, affects, gestures, and intonations, parents and primary caregivers can help infants and young children know that they are “felt with” and “attuned to.” This helps babies and children become calmer and regulate. When babies grow up with co-regulation during moments of stress, such as when they are struggling with strong feelings, they begin to internalize and conceptualize strategies for self-regulation and self-soothing—in their brains and in their minds.

For example, says Costa, consider a seven-month-old baby whose mother is playing with a jack-in-the-box toy—a game that while initially jarring for a baby, eventually becomes a joyful experience because of co-regulation. The mother places the jack-in-the-box in front of the baby and the music starts. The baby looks at the mother, questioning the meaning and wondering what’s happening. The mother smiles, assuring baby that it is all ok. As the music continues, baby looks back at the box and suddenly, the puppet pops up! The baby, shocked by the unexpected occurrence starts to cry and looks back at mom, this time for comfort as much as for meaning. Mom picks up baby, hugging him and telling him with her tone, facial expression, and touch that everything is ok, until baby calms down. As the baby learns the game alongside his mother, his reaction to the surprise eventually becomes joyful.

This is co-regulation. Because the mother is present in this moment of stress and attuned and responsive to the baby’s needs, she can calm the baby’s initial response to stress. And if she is consistently there in future moments of stress, future moments with the jack-in-the-box, the baby not only won’t be frightened by that new experience but will learn to master it and enjoy the game. The parent “organizes” these moments and, by doing so throughout early development, helps the child “sort through” moments that at first may be novel and alarming.
“There are millions of these moments during the first formative years of life,” continues Costa. “Each become the building blocks of the infant’s unfolding neurobiology, and each is co-constructed by the nature of these interpersonal relationships. Through this interpersonal process, we all develop our individual core capacity for regulation. Babies need loving parents and others to grow emotionally, intellectually and socially.”

Because the brain forms millions of neural connections in the first three years of life, helping families support co-regulating moments during those early years is critical for their future health and well-being. Importantly though, while parents often worry that they aren’t doing enough for their child, successful co-regulation doesn’t require constant attention.

“We can’t meet every child’s need at every moment, and that’s okay,” says Costa. “Studies show that if someone is with a child for 30 percent of these moments, then we are doing really well. And critically, when we miss a moment, repair can happen. The key message is that relationships matter, and the infant brain requires consistent, predictable, attuned, contingent, co-regulating, and loving others.”

**How can pediatric health professionals support parents and caregivers with co-regulation?**

To help families engage in co-regulated experiences with their children, Costa developed an acronym called A.G.I.L.E. that provides guidance on what constitutes a co-regulating response when the child is distressed. The guidance can help pediatric health professionals advise parents on what to keep in mind as they engage in co-regulating responses.

The AGILE Approach to Co-regulating Responses advises parents to pay close attention to their:

- **A - Affect**: how your tone and expressions convey your emotions. In times of stress, is your affect loving, supportive, and soothing?
- **G - Gesture**: Facial expressions, hand gestures, body moment, posturing and pacing all reflect your emotions and are felt by a child during your interactions.
- **I - Intonation**: Modulating the tone of your voice helps conveys affect and social/emotional meaning. This is “felt” and “understood” long before words. And even after language develops, affect, gestures and intonation convey the genuine meaning of the interpersonal exchange. This communication is stronger than words.
- **L - Latency (Wait)**: Wait and give the child time to take in your gestures and intonations. Co-regulation requires patience.
- **E - Engagement**: Before you continue, be sure you have engaged the child. Your baby’s facial expressions, sounds and body language will tell you if she is engaged.

**Looking for more resources?**

Over the next year, 18 pediatric practices across the nation will work together to uncover more strategies to help families support children’s social and emotional development. **Sign up for NICHQ News** to stay informed.