

# Pregnancy AND THE Sixth Sense

How chiropractic offers  
a foundation for enhancing  
the nervous system

By John Edwards, D.C.



Some concepts have existed for so long that it's difficult to know where they came from. The American Heritage Dictionary defines "The Sixth Sense" as a *power of perception seemingly independent of the five senses; keen intuition.*

A lot of people feel that the sixth sense is too "out there" to be grounded in scientific fact. Most people recognize the five senses of sight, hearing, touch, taste, and smell because they are tangible. In neurology they are grouped together as the "far" senses, elemental for perception of the outside world.

On the other hand, I spend a lot of time talking about the "near" senses to parents in my office. These are three other senses that get less popular press but are by no means less important: The vestibular sense, which keeps us balanced and upright. Proprioception, which lets us know where our body parts are at any given point in time. And interoception, which tells us when our stomachs are empty and our bladders are full. These "near" senses give the brain information about our inner worlds.

In my chiropractic practice, not only do we see measurable changes in the "near" senses, such as improved balance for adults, but chiropractic care seems to have an organizing influence on all three as children grow from babies to 2nd graders. It was while listening to my colleague, Dr. Drew Rubin, discuss the neurology of pediatric chiropractic when I realized that the "Sixth Sense" is real, it's measurable, and if it isn't working well, chiropractic may provide a pathway to improving it.

Dr. Rubin was talking about polyvagal theory, a theory developed by Dr. Stephen Porges, which shows that there is a newer aspect to the autonomic portion of the nervous system that goes beyond fighting, fleeing, or freezing when confronted with a stressor. Unlike the sympathetic "fight or flight" and the parasympathetic "freeze" response, the social vagus responds to stress by giving, receiving, and asking for help. The vagus nerve, which is a Latin term meaning "wanderer" (so-called because the nerve branches out to many parts of the body) is the unifying neurological structure in the body for social, sympathetic and parasympathetic threat-assessments. And we can measure the vagus nerve's adaptability, flexibility, and resilience using Heart Rate Variability (HRV), which many chiropractors do in practice.

(Crazy enough, chiropractors have been early adopters of the technologies that measure HRV, and have published research describing how HRV readings improve when people are adjusted. It's almost as if we've found ourselves

in a positive feedback loop of chiropractic care validating HRV research on the autonomic nervous system, and polyvagal theory providing a solid backing for the application of chiropractic care.)

### Neuroception

Human brains have evolved something other animals did not—a sense called neuroception. This is the ability to assess an environment's safety beyond pure instinct when faced with trouble, which is absolutely necessary if we are going to engage with the more evolved social vagus stress response, which is usually the most appropriate way to respond to stressful situations. Our human brains evolved a specialized part, tucked behind our foreheads in the prefrontal cortex, which allows us to recognize when to

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proceed with the social vagus pathway of engagement.

Neuroception makes a strong case for being the "sixth sense." It is concerned with the heightened ability in humans to evaluate the world outside the body, helping us direct an evolved response. For women in pregnancy, it makes a lot of sense for the brain to sharpen this threat and safety assessment soon after conception. Some women know the moment they're carrying because smells get intense or food tastes weird. They choose a doula or a birth provider based on the vibes that that person gives off. This is neuroception in action! But what happens when a woman experiences less-than-optimal neuroception? What does it look like when she is perceiving threats when there are none, or she isn't perceiving threats that may be jeopardizing her well-being or birth experience?

My clinical hunch is that in addition to improving HRV ratings and "near" sensory function such as vestibular balance, chiropractic also improves the body's ability to communicate with the prefrontal cortex of the brain, particularly since the cerebellum (a section near the back of the brain responsible for balance, coordination and regulation of emotions) receives more input from the spinal cord so as

to relay it forward to the cortex.

The prefrontal cortex impacts two things I really care about as a chiropractor. First, a healthy, happy prefrontal cortex relaxes the tendency of our body to go into a flexion or protection posture. Second, the prefrontal cortex suppresses our body's innate emergency broadcast system. Our sympathetic nervous systems are switched on as a default setting (allowing newborns to readily cry when they have a need) and slowly decreases as we mature. However, when it's over-activated in people, the pupil has a hard time constricting when lights shine in it, the muscles on one arm

may be slightly tighter than in the other (which could lead to a different blood pressure reading between the arms), or the right eye may track an object differently than the left.

We've found inventive ways of measuring nervous system activity to see whether it improves. Most times, and for pregnant patients under our care, it does.

### **New Insights**

Nearly a decade ago, I began surveying my pregnant and postnatal patients' quality of life with a tool developed by the National Institute of Health called the PROMIS-29. We ran some basic statistics and saw a correlation between physical symptoms and mental health scores. I heard my colleague Dr. Ian Shtulman once say that if chiropractic suffers from anything, it is its simplicity. How can realigning a bone or vertebra impact our thoughts or feelings? The answer for us is because it restores normal "tone," what Dr. Porges calls "tune," and more directly, it induces harmony between the signals of the brain and body.

Just like any instrument that needs to be calibrated to make sure it's running smoothly, the nervous system benefits from someone who knows a thing or two about its optimal function, to assure the body's check engine light doesn't get ignored and lead to problems. The purpose of neuroception is to appropriately scan the environment to keep you on your destined path of well-being, and to alert you if you're in danger.

That check engine light—that tiny voice of intuitive wisdom that has been stored deeply in the recesses of your ancestral DNA—has evolved to keep each and every one of your predecessors aligned and safe. Our ancestors were able to listen and respond to it, making it possible for you to be here today. Nowadays, however, we have a hundred emails, plus a hundred Facebook notifications,



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fear-inducing stories and 24 hour news cycles, car lines and high fructose corn syrup, and BPA, and “sitting is the new smoking,” and pandemic shutdowns, and trending hashtags, and, and, and... all drowning out our sixth sense.

During the restrictive national lockdowns, birthing couples were scared. Not only did I see those pregnancies in practice, but I was part of one myself. I got to see the frontlines of hypnobirthing classes move to virtual. I listened to patients cry to me after being bullied by doctors who were making things up as they went. Among other alarming rises, there was a surge in the number of breech pregnancies. In the infinite wisdom she was blessed with, our homebirth midwife helped explain that “In times of stress or turmoil, sometimes babies just want their heads closest to their mommy’s hearts.” I don’t know if truer polyvagal words were ever spoken. I’d be willing to bet Dr. Porges would agree.

#### **A Path Forward**

Dr. Porges said in the aforementioned interview with Dr. Drew Rubin, “Our first job is to recruit the nervous system as a collaborator. Then the work can be done.” As chiropractors, we work as collaborators to improve accessibility to a patient’s neurology by making them feel safe and curious. If you’ve never met a chiropractor before I can tell you, as a profession, we get high customer service marks for being good listeners and obsessive about educating our clients. Some of us study special techniques to safely care for pregnant patients, and most of us encourage autonomous think-

ing in healthcare. We find ourselves often the first providers to tell parents-to-be that they have a lot of choices in front of them when it comes to pregnancy, birth, and family well-being. Our practice members trust us because we’re like the nerdy, crunchy, kind of maverick friend who cheerfully answers a text at 2 a.m. when you’re in labor.

I think our pathway through the challenges of the current healthcare environment comes through chiropractic. We need more families and pregnant women to understand that the higher purpose of adjustments isn’t merely to relieve back pain, and to seek out clinics and professionals whose mission is to support their nervous systems on all levels. Importantly, we as a profession have been getting ready for these women, taking on the responsibility of learning how to serve this population in a measurable, meaningful way. I think it’s time the public knew that polyvagal-informed chiropractors are out there, waiting to recruit the collective nervous system on a shared journey toward wellness. 



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