According to Grey’s Anatomy textbook, “The nervous system controls and coordinates all organs and structures of the human body.”

When a spinal vertebra becomes subluxated, it acts similar to a “blown fuse” and interferes with the function of that nerve. If the fuse supplying your air conditioner became overstressed and “blew” how well would that air conditioner work? The nerves branching from the spine can act in a similar manner, meaning that if the nerve(s) supplying the stomach are overstressed and interfered with, the stomach may not “work” as well as it should.

Symptoms such as upset stomach, indigestion, and reflux may show up over time but does taking drugs to deal with those symptoms deal with the TRUE CAUSE of the issue (“blown fuse”), or simply attempt to cover them up? Chiropractic gets to the root CAUSE of the problem by removing interference from the system that “controls and coordinates all organs and structures of the body.”

Your scans show the stress that is present on your nervous system, this chart shows what it may be doing to you.
**Autism and Chiropractic Care** - Anthony J. Ebel, DC, CACCP – Pediatric Certified Chiropractor

**Often times when I am in the community and introduce myself as a Pediatric Chiropractor, I get quite a few puzzled looks as if I’d just made up a new profession.**

The truth is, pediatric chiropractic is growing by leaps and bounds and the results we are getting are astounding. One of the areas our practice focuses on is helping children with autism and other spectrum-related disorders. So, in order to better help explain my answer to the question “Well, how can chiropractic help with autism?” I thought I would write out a general summary and make it available on the website! So here goes…

Warning – this is a very lengthy explanation, but if there is one thing I have learned in my years of helping parents whose children suffer with autism, it is that “no amount of information or help is too much” for their children. So hopefully, this helps...

**HOW CAN PEDIATRIC CHIROPRACTIC CARE HELP WITH AUTISM?**

Well, as is the case with so many questions, the response to this one is going to be multi-faceted. However, it will also have one recurring theme... and that recurring theme will be our focus on the Central Nervous System.

Anyone who knows anything about autism knows that the nervous system is greatly affected in this disorder and the challenges this brings about are responsible for many of the issues seen in children with autism, such as hyperactivity, attention issues, sleep challenges, behavior problems, social issues, sensory processing issues, and more. In addition, the nervous system is so intimately linked with the digestive and immune systems (the other two systems most commonly affected in autism) that it can also contribute to things such as bowel and bladder problems, autoimmune challenges, and more. From here on out we will look at these systems in a “triangular” sort of approach with the nervous system being the link between them.

Let us first start with possible ways the nervous system can be damaged or injured. There are numerous ways to discuss, so we will focus on the major one for purpose of this article. The primary mode of injury we see in our office is what we term Traumatic Birth Injury. For many of these children their nervous systems have been damaged right from the outset due to this birth injury, or even prior to that due to in-uterus constraint issues (i.e. breech positioning). Unfortunately, in the United States we have levels of birth intervention that even the WHO has termed to be at “epidemic” levels, especially the use of Cesarean delivery. It must also be realized, that sometimes even natural and fast deliveries can lead to problems, and that the problems or injuries can come later in life as well.

The area that is most commonly injured during the birth process is the upper neck and skull. The risk of injury to these areas, and the resultant issues from it, go up exponentially as intervention levels go up. C-sections, forceps, vacuum extraction, and prolonged pushing all lead to greater risk of traumatic birth injury to the infants head and neck. Unfortunately, no one in the medical system is really trained to check (or address) these sorts of injuries, so most of the time they go completely unmentioned to the parents...

If the injury were addressed by a trained professional shortly after it occurred, most of the neurological injuries associated with it could be prevented. If we are truly going to win the battle for autism in this country, we must learn how to prevent it, not cure it. This area would be a vital first step.

Once that injury occurs, it can put pressure on the brain stem and spinal cord, as well as the spinal nerves in the vicinity. What is more, by creating a misalignment and joint fixation complex (subluxation) in the area, it leads to improper neurological “signaling” or “communication” into and out of the central nervous system. This challenge to the communication system of the body is one of the primary reasons so many children with autism have challenges with sensory processing, social interaction and behavior, and learning.

All of this eventually puts the nervous system into a chronic or permanent state of stress. This is often referred to as the stress response, or fight/flight response. It is a response that is vital for short term reactions, but detrimental when “stuck on” for extended periods of time. Most children with autism have been in fight/flight from their first moments. This is why we see such a high correlation with infantile colic, ear infections, digestive disorders, and autism. Again, if our system were designed to address these
challenges immediately, rather than waiting for the symptoms to appear, far fewer children would be suffering with autism and related disorders. One can simply observe a child with autism and see the “stress and fear” in their eyes. It is such a joy to see this look change in their eyes as they progress through care in our office.

Getting back to our triangle example, this chronic state of stress wreaks havoc on the immune and digestive systems as both of them are “down-regulated” during chronic states of stress. Speaking specifically about the digestive system, sustained neurological stress responses can lead to an increase in constriction, cramping, and inflammation. When the digestive system is in this state it does a very poor job of breaking down foods and other substances, leading to even further inflammation and irritation that can spill over into the bloodstream and cause an immune response.

The immune system faces the same challenges... when we are in a constant state of neurological stress the immune system dysfunctions and leaves a child susceptible to allergies, asthma, eczema, and other inflammatory type reactions. All of this leads to more and more inflammation and irritation, and the cycle continues. This is why so many of these reactions and challenges are what we refer to as “viscous cycles” that essentially continue to feed each other and lead to greater and greater challenges. Somewhere, this cycle must be broken, and that is where chiropractic adjustments come into play.

By addressing the injury and resultant subluxation, a specific chiropractic adjustment restores proper balance and alignment to the head and neck, and thus can help restore balance and function to the central nervous system. Depending on the severity and duration these injuries have been present, sometimes repeated adjustments can create positive change in a step-by-step process that leads to an improvement in behavior, digestion, immunity, learning, sleep, and more. As I have stated many times before, the sooner we start, the better our chances of having success with such care.

In addition to this, our practice has a variety of other resources for these children. We will not go into detail here, but will quickly introduce each of them. The first is our unique rehabilitation and sensory-based therapy program. One thing I noticed quickly in practice is that virtually every child who had been “diagnosed with” things such as ADHD/Autism/Asperger’s all had major troubles with sensory integration and processing that made social interactions and learning difficult. We therefore developed an incredible therapy program that is unique to each child, that helps create more lasting and more effective results from our adjustments. The therapy is done in conjunction with the adjustment and is not designed to replace any work done by a licensed PT or OT, but is truly an enhancement to the child’s care and our therapy gets incredible results. For more info on our sensory-based rehab program, click here.

In addition to all the neurosensory work we do, we also take a very holistic and encompassing look at a child’s health. Another major area of focus in our practice is nutrition. We are very well-versed in the special diets such as wheat-free, gluten-free, dairy-free, and other type of diets, as well as experts in proper supplementation and support. We utilize an incredible line of supplements from NutraMetrix that was specifically designed for children on the spectrum. We have been thrilled with the results from this line of products since introducing them last summer.

We believe that when a family has a child who is challenged by something like spectrum disorders, the number one thing they need is someone who can support them and help them make the proper decisions. Unfortunately, despite the enormous growth in this disorder, most pediatricians are quite lacking in their understanding of spectrum disorders and how neurology, nutrition, and toxicity play a role in it. By reaching out to doctors who are caring, empathic, and experts in this area, you can be rest assured that you will get the support and care your child needs to overcome these challenges and lead a bright and promising life.

If your family is going through these difficulties please do not hesitate to contact our office today to find out how we can help. Our care is safe, it’s effective, and affordable. Thank you for taking the time to read this article and I look forward to serving you and your child.
Movement is life.

This may sound a bit strange at first but if you think about it for a moment the truth of this statement begins to become more and more apparent. Without movement you could not sustain life: blood cells that don't move cannot transport oxygen, lungs that don't move can't breath, hearts that don't move can't pump blood, and spines that don't move can't create the motion required for proper joint nutrition, for the activities of daily living, or for the stimulation of the joint-brain pathways required for proper brain and body function.

You heard correctly, movement (especially of the spine) is required for proper brain function for the coordination of activities such as concentration and learning, emotions, motor control, and organ function (including immune organs). 1-2 Roger Sperry the recipient of the Nobel prize in 1982 for his work in brain research stated that the importance of movement of the spine in relation to brain function could be equated to that of a windmill that generates electricity for a powerplant. He also stated that the more structurally distorted we are, the less energy we have for metabolism, for healing, and for thinking.

In fact research has shown that if you cut off the supply of somatosensory information going to the brain, the brain will actually reach a state of coma!! 3 That's right, the brain does not simply control the body, the brain requires constant stimulation; it requires constant input from movement to keep the batteries charged.

Did you know that over half of all the nerve impulses being sent between your brain and body in your spinal cord are for the delivery of movement stimulation to the brain? 4 Movement charges your brain's battery and makes you able to think better, feel better, and function better.

Sound a bit too good to be true? Don't just take my word for it, read the work of some of the most prominent neurologists, physiologists, psychologists, and educators in the world. Messages to your brain created by proper movement (especially of your spine) have been called an essential nutrient for brain function and development. 5
fact, research is now showing that people who do not properly stimulate their brain with joint movement have learning, memory, emotional, behavioral, and overall health deficits.

This is especially true for children because spinal joint receptor stimulation plays an integral role in the development of the child's brain and nervous system and the effects of decreased stimulation of the brain in childhood have been linked to central motor impairment, developmental impairments, learning disabilities, concentration problems like ADHD, behavioral problems such as violence and increased illnesses such as ear, nose, and throat infections, sleeping difficulties, and colic. 6-7

"Connectivity is a crucial feature of brain development because the neural pathways formed during the early years carry signals that allow us to process information throughout our lives (Dixon and Shore)." 7

At first researchers thought that it was just the exercise that improved brain and overall health due to increased blood flow and oxygen supply etc. Further research has shown that aerobic activity is not what is responsible for the amazing benefits of proper movement stimulation of the brain. It is the neurological stimulation of the pathways between moving joints, especially spinal joints, and the brain that are responsible. "At a major neuroscience symposium in Chicago where experts in the field of movement and cognition met the message was clear: Our body enriches our mind". 7

**Chiropractic Delivers!!!**

It should be obvious why it is so important to ensure every child has a properly moving and aligned spine as the spinal joints are the main source of sensory movement stimulation to the brain. If there is subluxation in the spine, movement and therefore essential nutrient delivery to the brain are compromised.

The upper neck has been found to be particularly important to examine because it is the most easily damaged (birth trauma, falls, poor sleeping postures) and it has by far the most movement receptors to stimulate the brain.4,6

These findings have been confirmed by clinical studies performed by both chiropractors and medical doctors. In fact after examining thousands of children one medical researcher concluded that "observations of motor development and manual control of the occipito-atlanto-axial (upper neck) joint complex should be obligatory after every difficult birth". He also states that the upper neck "should be examined and, if required, specifically adjusted ... (as) the success of adjustment overshadows every other type of treatment." 6 Of course it does, a specific adjustment is the ONLY way to correct a subluxation!!!

As pediatric chiropractors we are all very familiar with this type of work and have all personally seen great results with the care we provide to children. The problem is that much of society is unaware of the pathogenic potential of subluxation and far too many children are suffering needlessly. It is up to all of us as individuals to disseminate this information and to support organizations such as the I.C.P.A. that are dedicated to educating both the public and the chiropractors in the field.
I recommend combining specific adjustments with some sound nutritional advice and some fun 'Brain Gym' exercises to ensure that each child gets the best possible chance to have a healthy body and mind.

Not only does proper spinal movement increase overall health, decrease disease and improve the ability to create feelings of happiness and well-being, it also helps to reduce pain and discomfort and to diminish feelings of anxiety and stress. When it comes right down to it we are creatures designed for virtually constant movement living in a society that involves almost constant sitting. We are also clearly designed to have properly moving and aligned spines and many of our citizens are unknowingly walking around with subluxation in their spines because they have NEVER HAD A SPINAL HEALTH EXAM!! This is not a healthy combination and the result is that we have a population that is much less healthy and much more sick, tired, and disease ridden than is necessary.

Please get yourselves and the children out and moving around. Everyone will feel better, think better, have a healthier spine, have increased overall health, and enjoy a much greater quality of life. All children (and adults of course) deserve a wonderful quality of life and proper spinal movement is an integral part of this. Motion is lotion, movement is life, and chiropractic delivers so get out there and get those spines moving!!!!

References:
4. Guyton, A. Textbook of Medical Physiology
7. Jensen, E. Learning with the body in mind. 2000
**physiological STRESS RESPONSE**

WE ARE BUCKETS OF WATER.

When our bucket overflows, it leads to DIS-EASE...

- Acid Reflux
- ADHD
- Allergies
- Anxiety
- Asthma
- Autism Spectrum/Aspergers
- Bed Wetting
- Behavioral Issues
- Bipolar
- Cancer
- Constipation
- Depression
- Ear Infections

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Three T’S **CAUSE** subluxation (NERVOUS SYSTEM INTERFERENCE) giving us a smaller bucket.

Chiropractic care **increases** the size of our bucket (ability to adapt)

Wellness **reduces** the three t’s (STRESS) that fill our bucket

CHIROPRACTIC WELLNESS CYCLE

- EATING WELL
- MOVING WELL
- THINKING WELL
- WELL ADJUSTED