

<u>Three Exercises to Calm,</u> <u>Focus and Rebalance Your</u> <u>Child's ADHD Brain</u>

A Parent's Guide to using exercise to help their child focus and self-regulate their mood.

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This short, but *jam packed* guide, is dedicated to all the parents out there looking for ways to improve their child's quality of life.

Using the information and exercises in this guide on a daily basis or even multiple times a day is a great way to helping your child begin to develop a stronger proprioceptive system and core strength.

These exercises can be used as a stand-alone activity or in conjunction with other healthcare providers.

Disclaimer

This parent guide is not intended to diagnose or treat ADHD or any other health issue. It is designed to help parents learn more about some of the underlying neurologic weakness seen in many children and adults with neurodevelopmental issue.

For specific diagnosis and/or prescribed treatment for you, your child or other family member it is recommended that you consult a trained and licensed healthcare provider. Questions concerning how to find a qualified provider can be sent to gardnerfamilychiro@gmail.com or by contacting a local neurodevelopmental clinic in your area. "Only one out of twelve children has normal core strength and balance"

> Angela Hanscom, MOTR/L (Founder of TimberNook)

There has been a major shift in our environment over the last several decades that is having a *dramatic*, and often *negative* effect, on the **normal brain** and **body development** of our children.

This short, but very informative parent's guide will help you understand why your child really fidgets, gets easily distracted and loses focus. And even more importantly, what you can begin doing on a daily basis to help them calm, rebalance and refocus their brain.

Movement, Stimulation, Exercise and Brain Development

The human brain is a tremendously powerful organ that is capable of processing between 11 and 50 billion bits of information every second. This incoming, sensory information is what activates the brain and helps it generate the energy to nourish the rest of the body for growth and development.

Without a constant surge of healthy sensory information coming into the brain from our 5 classical senses (sight, sound, smell, taste and touch) and more importantly our 2 special senses called proprioception (joint and muscle movement) and vestibular input (our brains gyroscope) our brain goes into a state of deficiency and disorganization that negatively affect the rest of our health, our mood and our behavior.

When your child's sensory input decreases their brain literally begins to create a state of movement and fidgeting in an attempt to increase the stimulation it is craving.

Using Exercise to Calm and Rebalance the ADHD Brain

When a child is born they have a set of reflexes called *Primitive Reflexes* that are there to help them survive. You've probably seen how a hungry newborn automatically turns their head and opens their mouth when they feel something brush across their cheek, this is called the Rooting Reflex and is just one example of these primitive reflexes.

As the newborns brain and nervous system develops, they naturally begin to inhibit these reflexes. As you can see in the diagram to the right these changes start as a newborn learns to hold up their head and support their own body. These types of movements (holding up the head, rolling over, sitting up, crawling, etc) take core strength and stimulate the proprioception and vestibular senses mentioned above (1).

We can use this understanding of normal brain and body development to help children (and adults for that matter) with ADHD and other neurodevelopmental



challenges to function at a higher level, feel calmer and begin to reverse the brain patterns that are actually creating the ADHD symptoms.

Super Charge the Brain and Body with Core Strength Exercises

Having your child exercise their core muscles will naturally tap into the areas of the brain necessary for proper brain function. In a recent research study by Angela Hanscom, MOT, OTR/L (pediatric occupational therapist) it was found that only 1 in 12 first graders have adequate core strength (2). This is a strong indication that this generation of children are not getting nearly enough play to strengthen and nourish their brain. A great place to start is with cross-crawl exercises, super man's and planks.

Steps in Cross Crawl

- 1. Have your child stretch their hands and arms above their head and fully extend their legs while lying on a firm surface.
- 2. With calm, gentle, deep breathing bring their right hand and arm down, while at the same time bending their opposite leg and bringing their knee up to touch their hand and knee together.
- 3. Repeat on the opposite side remembering to fully raise their arm and extend their legs between repetitions.
- 4. Do this at least 10 times on each side.
- 5. If this is to easy for them have them do more of a crunch bringing their elbow and knee together.



THE CROSS CRAWL

Super Man's,

- 1. Have your child lay on their stomach, again with arms stretched over their head and legs fully extended.
- 2. Raise the right arm and left leg together and hold that position for three gentle, deep, relaxed breaths in and out or about 15 seconds.

- 3. Repeat this with the opposite arm and leg.
- 4. Do this at least 5 times on each side.

*It's important to make sure your child can complete these and all exercises mentioned with good form while being slightly challenging. Once the exercise becomes too easy it's important to move to the next level of difficulty.

Example of a progression in the cross crawl; move from a supine cross crawl to a seated cross crawl to seated on an exercise ball to standing to standing on a bosu ball. Additional challenges can also be added such as performing the cross crawl while using a metronome as an auditory single further challenging the brain.

Restoring Balance

The vestibular system is kind of like the brains gyroscope and is intimately connected with many brain and body functions, along with emotional states. Unfortunately, it is also one of the major systems that is found to be weak in children and adults with ADHD.

Adding a balance component to many forms of exercise using things like exercise balls, bosu balls and even simply drawing the feet in close to one another can help stimulate the vestibular system.

Tandem Walking,

- 1. Mark a 10-foot straight line out on a hard surface in your house. A simple way to do this is to use something like painters tape.
- 2. Have your child line up at one end and walk heel to toe to the end with their head up, while maintaining a calm, relaxed breathing rhythm.
- 3. When they reach the end, have them turn on the line and walk to the starting point.
- 4. Repeat this for a total of 40-50 feet (back and forth 4-5 times).

Next Step

Help your child make the above-mentioned exercise techniques a part of their daily routine to help restore a sense of calm and balance to their brain and body.

Keep your eyes open for follow-up suggestions from our office and even beyond the exercise mentioned in this guide, encourage your child to turn off the TV, internet and video games and get out and exercise more.



I'd also strongly recommend that you make an appointment with a pediatric trained chiropractor to see if your child may have neurospinal subluxation patterns.

These patterns of nerve stress have been shown to negatively impact the normal function and development of the brain by decreasing or interfering with the optimal stimulation from the spine.

Amazingly, research has found that a full 30% of the proprioception signals that your brain depends on to function correctly come from the proper movement of the top three vertebrae of the neck. Subtle misalignments in the upper neck cause a decrease in range motion and when this happens the brain begins to malfunction.

If you have any questions or to <u>schedule an appointment</u> with our office call (843)407-5331 or email <u>gardnerfamilychiro@gmail.com</u>. We are here to help you get the answers you are looking for and to help your child recover naturally.

References:

- 1. Melillo, Robert. *Disconnected Kids*. New York: Penguin Group. 2009. Print
- 2. http://www.balancedandbarefoot.com/blog/the-real-reason-why-children-fidget

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