Certification Training Manual

The Corpus Callosum

The two hemispheres of the brain are separate physically and functionally, but are united by a structure called the corpus callosum. This bridge between the two hemispheres of the brain provides integration of right and left brains at the cortical level. However the activities that stimulate the corpus callosum into full functioning occur during the midbrain period of development.

Our right brain and left brain perform different functions, and when they are working together our genius as a species becomes evident. A loose characterization of the left brain would describe it as the source of language, logic, and linear thinking. The right brain, in general terms, takes responsibility for holistic awareness, emotional engagement, seeing 'the forest for the trees', drawing conclusions from an assembly of details, and for creativity and expression.

The integration of these functions makes many of our uniquely human functions possible. Reading, for example, involves hearing the discreet words in order and understanding their meaning (fluency), which are left hemisphere functions. The right brain then takes this linear string of sounds and creates the 'movie' in the brain, the picture of what the words are expressing, adding emotion, meaning, and context (comprehension).

We work with many bright children with poor corpus callosum functioning who have 'high fluency' but 'low comprehension'. This is usually the result of a weak connection between the two hemispheres of the brain.

The corpus callosum also allows us to have a complex experience, then break that experience down into a linear collection of words, to describe events that have happened in an order that makes sense to the listener. Without efficient corpus callosum functioning, the child may not be able to report what happened at school, at the park, on vacation, etc.

The corpus callosum can also be the culprit when the child gets lost in a fantasy (right brain) world and cannot be pulled out of it without some effort. A parent may call the child to dinner repeatedly, for instance, and get no response until they can pull the child away from a book or a play experience. Parents of these children have been known to say, "I have to call him and call him and it isn't until I yell at him (or pull the book out of his hands, or make him look me in the eye) that he hears me."

Memory can also be impacted by poor corpus callosum functioning. If one side of the brain was, in effect 'on and paying attention' while an instruction was given, but the other side of the brain is more functional at a later time, information may not have traveled effectively to the other side of the brain and the client will have, literally, no memory of what was said.

This can wreak havoc on trust in a relationship as the information given to the child at one moment, might sound like a lie at another moment because they do not have memory of the original conversation. Trust is the foundation of healthy attachment and children with attachment disorders are often those who are also struggling with an inefficient corpus callosum.

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This is also the child who is described has having difficulty crossing the midline. And we would like to note at this point that practicing crossing the midline is only a way to use the corpus callosum that is already there. To build a stronger corpus callosum, we have to go back to the developmental activities that trigger its function in infancy.

A child with a corpus callosum issue may also have trouble knowing which direction the 'b' or 'd' or 's' 'w' 'm' 'p' or 'q' are written. This is a classic dyslexia symptom, which can be resolved when the corpus callosum is fully functioning.

Dyslexia, learning and forgetting, getting 'lost' in one's fantasy world, poor reading skills, poor coordination across the midline, lack of trust in relationships - all these, and more, can be consequences of an inefficient corpus callosum and can be addressed by doing those activities that trigger the brain to strengthen the corpus callosum.

It is important to note that very few people have no corpus callosum functioning. Lack of any corpus callosum functioning would lead to complete disability. Most of the children with whom we work have inefficient functioning, rather than lack of functioning across the corpus callosum.

As you will learn the Tonic Neck Pattern, which initiates the process of corpus callosum functioning, creeping on hands and knees, and other cross body activities that strengthen the corpus callosum, are critical for optimal brain functioning.

One of the biggest challenges to integrating this level of the central nervous system is the plethora of baby containers that prevent the child from doing those activities most critical to the development of a healthy corpus callosum. To optimize this level of the brain, it is best for families to get rid of all forms of 'baby buckets', including walkers, Baby Bumbos, car seats outside of the car itself, swings, "Johnny Jumpers', Exersaucers, and all other forms of equipment that keep babies from going through the whole Developmental Sequence.

In our experience, those children raised in baby equipment are significantly impaired at the level of the corpus callosum often resulting in diagnoses and challenges such as ADD, dyslexia, impulsivity, memory problems, and even attachment issues.