

## Access your Executive Brain with Cognitive Fitness

### Category – ADHD and Executive Functioning Skills

Did you know research has found a reduced blood flow to the frontal lobe (part of the brain) of adults with ADD/ADHD. As blood flow is an indicator of brain activity, a reduced flow in the frontal lobes suggests lowered functioning in this area.

Since our frontal lobes are critical to the brains executive functions which affect our ability to achieve positive results in life, this is problematic.

### There are 5 areas of Executive Functioning that are affected by ADD/ADHD;

- **Non-verbal working memory** – Is the way our mind uses visual maps or images to orient us and remember things. Mental images help us to imagine what a sequence of steps might mean to us in the future (foresight) and analyze what a series of steps in our past means (hindsight). Non-verbal working memory also allows us to see ourselves evolve across time. Some people with ADD/ADHD have trouble creating these images and holding them, which makes following a sequence difficult.
- **Verbal Working Memory** - Is the "little voice in your head" that gives you direction. It may convince you that it's okay to put something off, tell you to turn right or remind you that you'll get in trouble if you don't do your homework. We often use this voice to problem solve - "if I do X, will Y happen?" for example. It also plays a role in reading comprehension.
- **Response inhibition** – Is your ability to "put on the brakes" is an important part of self-mastery that allows us to think before we act. Those with impulsivity as one of their primary ADD/ADHD symptoms suffer in this area. In addition, response inhibition allows us to delay gratification and resist unnecessary distraction. To support Long Term goals such as building a cottage or Short Term goals such as making coffee.
- **Emotional and motivational control** - Spurts of anger, difficulty keeping oneself from over-reacting and keeping oneself headed toward a long-term goal are all part of executive functioning. When you think of "motivational control" think of "reward" that inspires you to keep going until you get what you want. People with ADHD have a brain chemistry (low dopamine, serotonin and endorphins) that typically does not clearly indicate "reward" in the attention centers of the brain. This leads to having trouble "keeping your eye on the prize" or completing tasks that only reward after a long time (doing well in college so you can get a better job).

- **Planning and problem solving** - Many projects include multiple steps, and sorting out what those steps are. What order they should be in is particularly difficult for many with ADHD. While many people with ADHD consider themselves creative problem solvers because they think outside the box, this is different from organizing a project or problem. Sometimes one of the issues with planning is the weak non-verbal working memory, which makes it hard to "see" or imagine how a complex series of steps will line up.

Many people in today's society are struggling when they don't need to be! They are in survival mode, not making use of their executive brain capabilities.

How can Cognitive Fitness or Brain Fitness support Executive Brain functions? Brain fitness is the state of having quick, efficient, and flexible cognitive processing, likely a consequence of an increased number of neurons, functional connections between neurons, and processing speed.

Brain fitness grew out of the study of neuropsychology and neuroscience, and is the science of maintaining and training cognitive abilities through neuroplasticity and stimulating neurogenesis, the creation of new neurons, neural connections, and brain vascularisation.

*The Learning Disability Association of York Region* said "Loved it! The content was great, there is not much out there about adults and it was great to hear about it from an adult with ADHD."

*NEW and Pure Gold! If you have ADHD you will love this and you will understand how valuable you are! If you don't have ADHD you will love this too!*

[Favourite Video -Sir Ken Robinson - Changing Education Paradigms \(ADHD\)](#)

**Duration: 11 minutes (Ted talks – The best of the Best) Cartoon**

Learn more about your brain and gain understanding of the simplicity of the brain's ability to grow and rewire itself for enjoyment, efficiency, achievement and health, consider joining one of our personal/professional development courses and make some new brain links for your success! Cognitive Fitness is easy and extremely beneficial to us all, no matter your age or ability. [Next Courses...](#)

Jill Hewlett and Sharon Todd are co-founders of Brain Works Global Inc., licensed Brain Gym® Trainers and *Cognitive Fitness* Experts. Their company trains clients on how to maximize their learning potential while working in conjunction with their individual goals.

For over a decade [Jill Hewlett](#) has been providing inspirational and educational [keynotes](#). As well, Brain Works Global provides [in house](#) and [community training](#) and personal and professional coaching services to a wide range of [organizations](#), [schools](#) and the [community](#). For more information go to <http://www.brainworksglobal.com> or call Sharon Todd, Director of Sales and Operations 905.235.5546



Become The Sculptor Of Your Brain!