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# ADHD Beyond Symptoms

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**Exploring causes, understanding holistic treatments, and mastering learning strategies to treat the whole child**



# Who is Nectar?

The Nectar Group is an education company dedicated to helping students overcome learning challenges so that they can reach their full potential. With our assessment-driven process, we use scientific tools to evaluate and pinpoint the root causes of learning difficulties. Then, we create custom solutions utilizing cognitive neuroscience to resolve those root issues.

We optimize learning and take a holistic approach to improving school, work, and life performance by providing:

- Therapeutic interventions that are grounded in neuroscience to treat the causes of learning difficulties for all ages
- K-12 and collegiate level academic tutoring in reading, writing, and math to build solid content and prepare students for college and beyond
- Study skills and executive function coaching to ensure successful student outcomes
- One-to-one educational services via educational consulting, individualized schooling, and homeschool support



# Who do we work with?

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Clients ages 6 and up



All types of diagnoses:

ADHD, Dyslexia, Autism Spectrum, “Slow Learners”, Gifted, Twice Exceptional, TBI



Students and adults looking for a competitive edge



Nectar provides all services to clients around the world via our unique eCoaching remote video services



# **What is ADHD?**

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# DX of Attention-Deficit/Hyperactivity Disorder

## Three Types - On a Spectrum: Mild-Severe

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Predominantly inattentive presentation



Predominantly hyperactive/impulsive presentation



**Combined presentation**

Criteria are met for both types



# What is ADHD?

## Symptom Cluster

If you have a specified number of symptoms, you meet diagnostic criteria for ADHD.

The main symptoms are an inability to inhibit impulses, manage behavior, activate attention, and self-regulate emotions.

The key to treating ADHD is to uncover the root cause and go **BEYOND** the management of symptoms!

ADHD is as a disorder of self-regulation. It is not just that children can't inhibit their impulses, but they have trouble both activating and fine tuning their behavior, attention, and emotions ([Nigg, 2017](#)). This explains children who cannot get started on or finish their homework but can focus on Legos™ or their stamp collection for hours. Their natural interest does not have to be "regulated" for those activities in order to pay attention.

- Dr. Sanford Newmark, Head of the Pediatric Integrative Neurodevelopment Program at UCSF



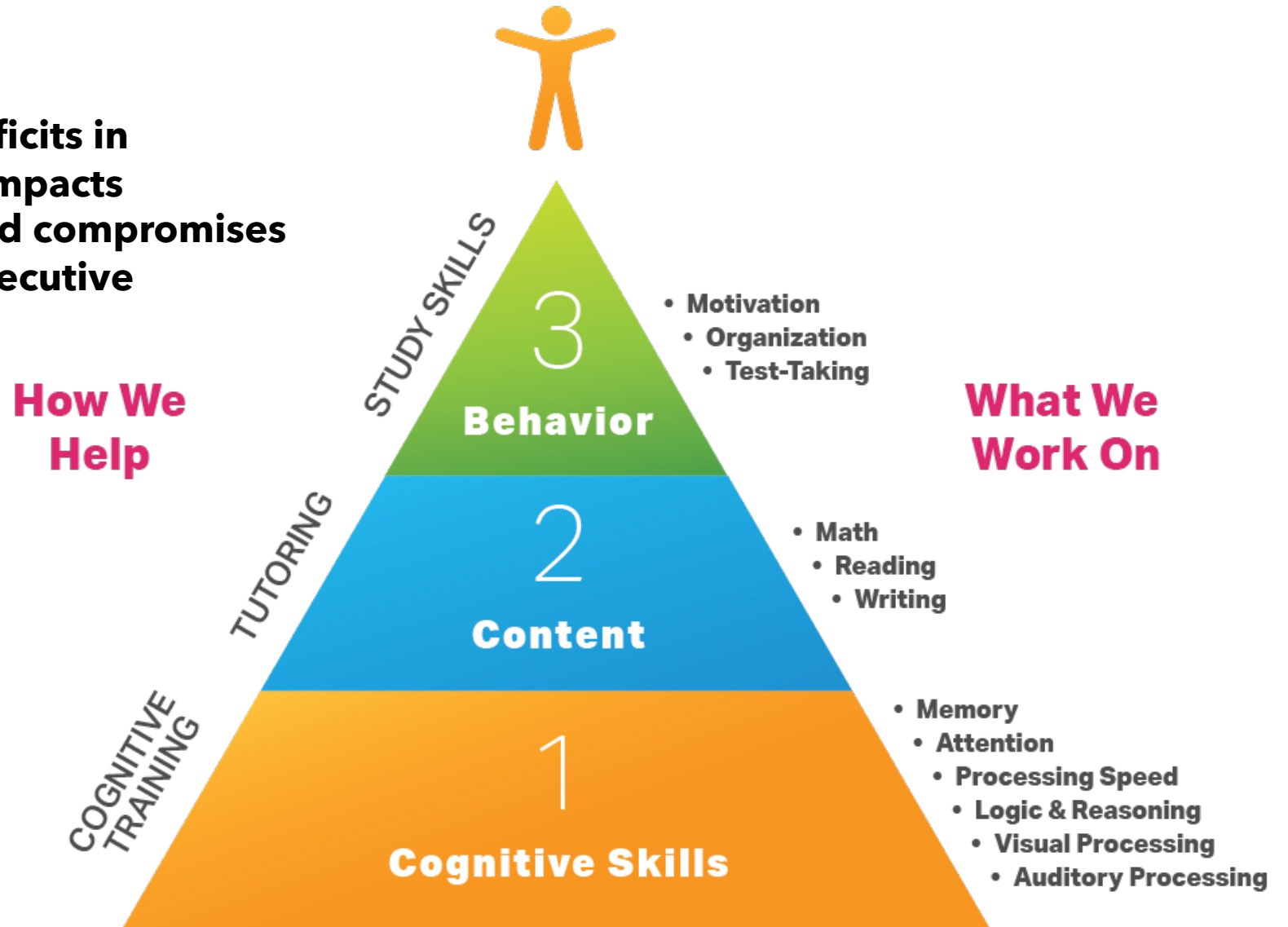
# **Understanding the root causes of ADHD**

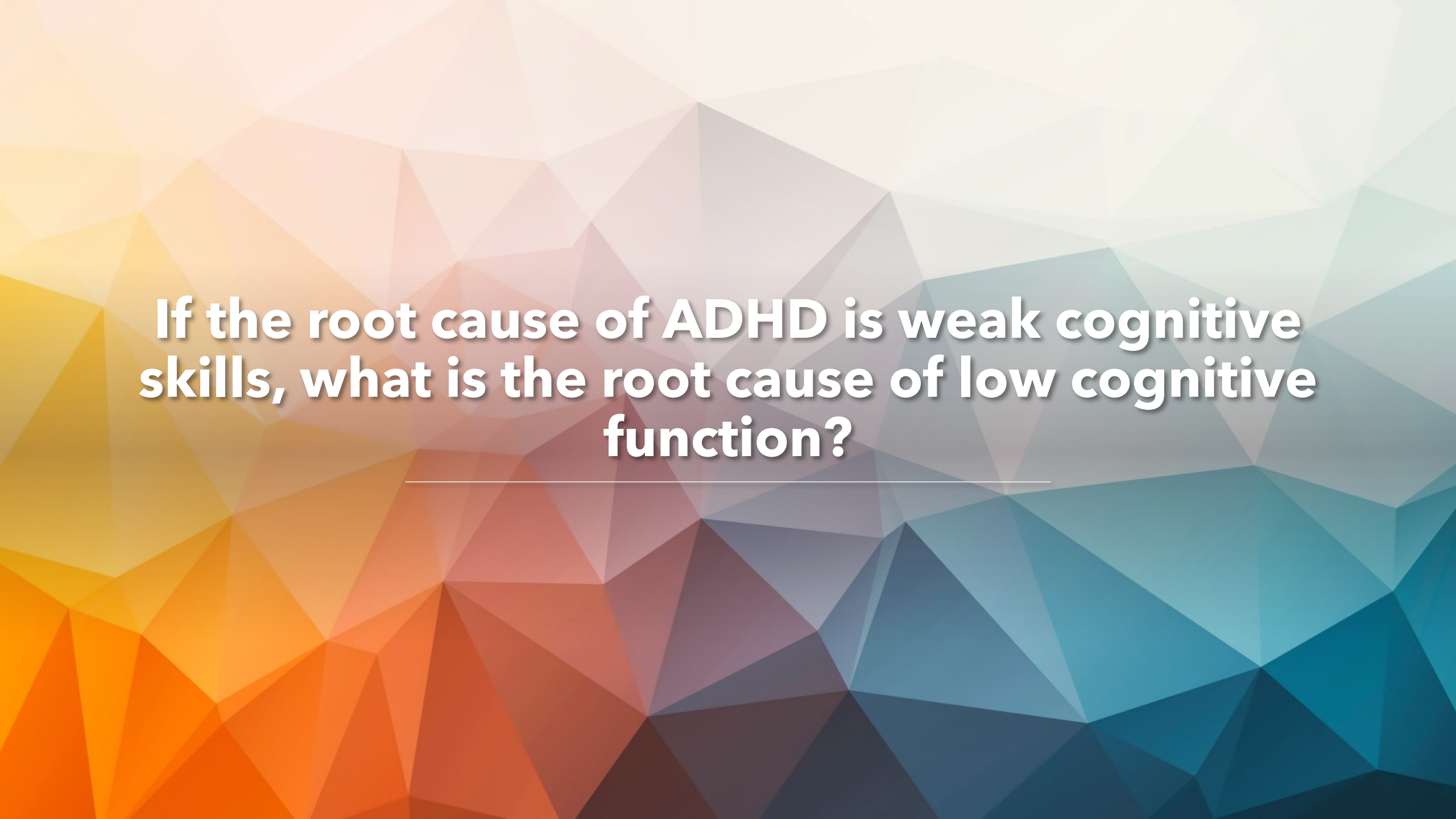
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# Potential Pyramid™

In most cases, ADHD is caused by deficits in cognitive function (tier 1) that then impacts the ability to learn content (tier 2) and compromises the development of behavior and executive function skills (tier 3).





**If the root cause of ADHD is weak cognitive skills, what is the root cause of low cognitive function?**

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# Root Cause of Cognitive Weaknesses

## Physiological & Neurological Deficits in the Brain caused by Genetics or Environmental Factors

(i.e. Low birth weight, lack of oxygen, physical birth trauma, environmental toxins, emotional trauma, diet and nutrition, brain injury, concussion, etc.)





# **Methods for Diagnosing ADHD**

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# Two Methods for Diagnosing ADHD

## Symptoms Based Pharmaceutical Model

- Most often done with a pediatrician
- Parent/Teacher surveys of observed symptoms
- If you have enough symptoms the result is a dx
- No evaluation for comorbidities (i.e. dyslexia)
- **NO evaluation of root causes / NO cognitive assessment**
- High rate of misdiagnosis
- Focus is on symptom management usually through medication

## Assessment Based Neuropsychological Model - Uncovering the Root Causes

- Done with a licensed clinical psychologist or neuropsychologist
- Involves Parent Interview, student interview, and testing of cognitive function, academics in reading, writing, math, observed symptoms, psychosocial evaluation, and attention and focus measures
- Looks for and diagnoses cooccurring disorders (i.e. dyslexia and ADHD or anxiety and auditory processing disorder)
- **Identifies the root causes / extensive cognitive assessment**
- Comprehensive and high accuracy
- Focus is on treatment of the root causes and complete biopsychosocial treatment



# **Holistic Treatment of ADHD**

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## Three-Pronged Approach to Intervention

1. **Assessment and Treatment of Cognitive Deficits:** addresses the root cause
2. **Optimize Brain Function:** supports optimal neurological function and mood regulation
3. **Implement Educational/Behavioral Strategies:** improves self-regulation & independence



# **Step One: Assessment & Treatment of Cognitive Deficits**

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# Assess: Testing Cognitive Skills

**Pinpoint strengths and weaknesses, Unearth the root cause of challenges**

- Comprehensive cognitive testing - non diagnostic
- Neuropsych/Psychoeducational assessment - diagnostic





# Example Report: Tailor Treatment to Specific Deficits

## Cognitive Assessments

Skill Tested	Definition	Age Equiv.	Percentile Rank
Short-Term Memory	The capacity to hold information in immediate awareness.	14-2	67
Direct Recall/Auditory Attention	The ability to attend to auditory information for direct recall.	16-10	76
Direct Recall/Visual Attention	The ability to attend to visual information for direct recall with an attention to detail.	12-8	51
Working Memory	The ability to attend to information and perform a mental operation on the information.	12-8	54
Processing Speed/Sustained, Selective, and Divided Attention	The speed at which the brain is able is to perform automatic tasks, particularly when measured under pressure to sustain controlled attention and concentration. Determines mental efficiency.	7-8	1
Academic Processing - Letters	Language Facility (fluency and ease of processing written language)	8-1	4
Academic Processing - Numbers	Number Facility (fluency and ease of processing numerical info)	9-0	6
Executive Processing	Cognitive flexibility with distractions/divided attention demands	7-2	1
Long-Term Memory	The ability to learn new information, store this information, and recall it for later use.	13-8	57
Auditory	Ability to encode, store, and retrieve verbal information.	14-0	57
Visual and Auditory	Ability to encode, store, and retrieve visual with auditory information.	13-4	53
Visual Processing	The ability to perceive, analyze, synthesize, and think in visual images.	15-4	63
Spatial Awareness	The ability to think in visual patterns and manipulate images in the mind's eye.	17-5	70
Logic and Fluid Reasoning	A combined measure of the ability to reason, problem solve, plan, and form concepts.	>20	89
Quantitative Reasoning	Number sense, pattern recognition, and mathematical reasoning	>20	92
Inductive/Deductive Reasoning	The ability to generalize information from specific observations, understanding the "big picture," problem solve, and form concepts.	>23	73
Auditory Processing	Ability to hear and distinguish different sounds measuring phonological processing and phonological memory.	13-8	60
Phonological Processing	Ability to identify, isolate, and manipulate sounds.	20	81



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## **The Benefits of Cognitive Testing...**

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**Treatment will be more:**

- Accurate
- Customized & Targeted
- Effective

**Time & Cost Savings.**

**Able to tailor holistic  
interventions such as diet, sleep,  
exercise, etc.**



# Cognitive Training

- One-to-one intensive coaching that targets cognitive deficits
  - Works by stressing a weak area through mental exercise, encouraging the brain to build new neural networks
  - Neurons that fire together, wire together! (Hebb's Law)
  - Corrective measure that improves the primary underlying cause of ADHD: weak cognitive skills (Short-term memory, processing speed, and attention)



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# Results that are Truly Life Changing!

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- 70% of children on ADHD meds, stop meds within 6 months of therapy, those not on do not start
- Increased attention and focus
- Improved self confidence
- Improved academic performance
- Ability to complete schoolwork with greater speed and efficiency
- Better emotional regulation





# **Step Two: Optimize Brain Function**

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**There are many ways to improve brain function holistically. Today we are going to focus on two:**

- 1. Eat a diet high in essential fatty acids**
- 2. Ensure optimal micronutrient levels**



# Eat a Diet High in Essential Fatty Acids (Omega 3s)

## How does this help? Omega 3s:

- Assist with proper functioning of brain cells, facilitating the transmission of signals between neurons
- Influence the functioning of neurotransmitters in the brain such as serotonin and dopamine, which play significant roles in mood regulation and cognitive functioning
- Improve cognitive function, especially memory, attention, and processing speed.







## **Eat a Diet High in Essential Fatty Acids**

- **Foods:** wild salmon, grass-fed meats-especially beef and bison, omega 3 enriched eggs, walnuts, chia seeds
- **Supplementation:** Barleans, Nordic Naturals, Accentrate



# Ensure Optimal Micronutrient Levels

## How does this help?

Zinc, magnesium, and iron in particular are crucial for cognitive function. Some of the key ways they help are:

- Crucial for neurogenesis (the production of new neurons) and neuroplasticity
  - Ensures synaptic plasticity (the junctions between neurons to function in a way that allows for learning & memory)
  - Myelin production (the fatty substance that insulates the nerve fibers, improving the signal transmission between neurons, especially important for attention, learning, and memory)
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# Ensure Optimal Micronutrient Levels

## Emphasize magnesium, zinc, & iron

- **Zinc** – beef (chuck roast), dark meat turkey, pork loin, cashews, sunflower seeds, chickpeas
- **Magnesium** – brazil nuts, cashews, almonds, spinach, swiss chard, avocado, brown rice
- **Iron** – spinach, lentils, beans, tuna, shellfish like oysters, clams, mussels, beef, beans
- **Supplementation:** Quality multi-vitamin (Innate, Douglas Laboratories, Aspire Multi-powder, see ADHD without Drugs book or Parenting the Whole Child for specific dosing guidelines for individual nutrients.



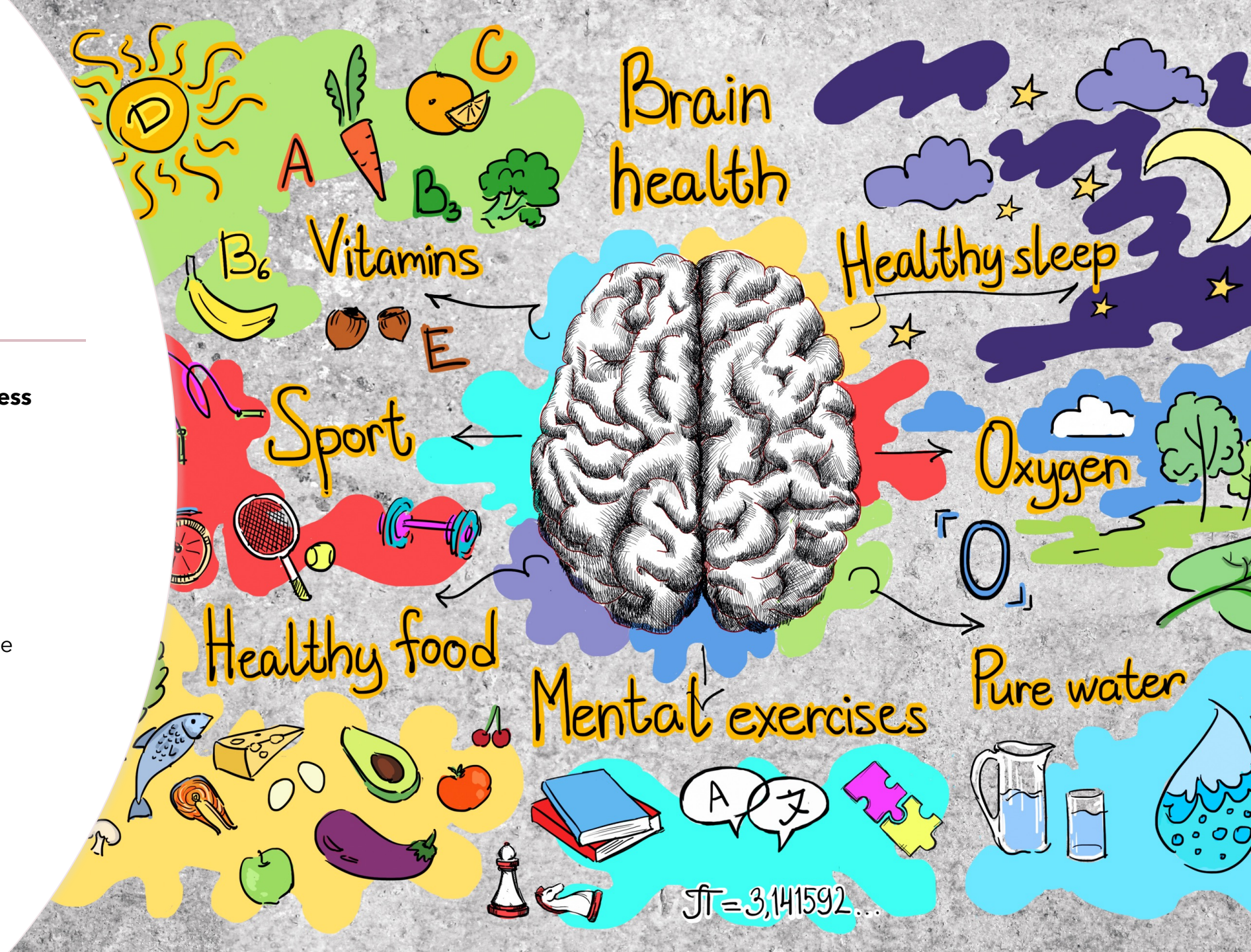


# Get Help, Get a Plan!

Nectar Integrative Health & Wellness  
Coaching

## 6 Keys to Improve Learning by Optimizing Brain Function Digital Course

- Mental Exercise
- Movement/Physical Exercise
- Sleep
- Resiliency/Stress Reduction
- Environmental Factors
- Nutrition







# **Step Three: Implement Strategies**

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# Strategies for at Home

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Set and stick to a routine - bedtimes, wakeup times, mealtimes



Set expectations with clear guidelines & consequences, Have Non-negotiables / Create a Homeschool Contract and/or a Behavior Contract



Organize your environment



Prioritize time outdoors and physical exercise within every day



Limit Passive & Addictive Technology Use



Set a focus timer for sustained attention to schoolwork. Hold tightly to work time and break time. Clearly communicate the timelines so children know what to expect and when a break is coming

# Strengthen the Parasympathetic Nervous System to Improve Self-regulation

## • Mindfulness Training

- Stretching
- Contemplative Prayer
- Tai Chi
- Martial Arts
- Apps: Calm, Headspace, Insight Timer
- Breathwork (4-7-8 breath)
- Being outdoors in nature
- One to One Coaching (Nectar)

## • Biofeedback

- Neurofeedback
- Heart Math
- Apollo Neuro





# Parent-Child Interaction Therapy



- **Teaches parents how to help the child develop more adaptive behaviors and coping skills**
- **Helps parents learn to set clear expectations, provide praise for follow through, and use effective consequences**
- **Includes sessions with the parents and child working together and with parents alone.**
- **Parent-Child Interaction Therapy (PCIT), Parent Management Training (PMT), and Positive Parenting Program (Triple P)**

# Provide Explicit Coaching in Study Skills and Executive Functioning



Time Management and Organization



Study Hacks and Habits



Responsibility and Self-Advocacy



Study Strategies



Critical Thinking Skills



Note-taking



Test-taking Strategies



# Medication:

**"No one was born with a Ritalin deficiency." -Dr. Pierre Brunschwig, M.D.**



- Should be considered as a **last resort** only after a comprehensive evaluation and attempting all other biopsychosocial interventions. **Medication does not treat the root issues but rather manages symptoms.**
- Significant short and long-term side effects.

# Summary of Three-pronged Approach

- 1. Assessment and Treatment of Cognitive Deficits:** addresses the root cause
- 2. Optimize Brain Function:** supports optimal neurological function and mood regulation
- 3. Implement Educational/Behavioral strategies:** improves self-regulation and independence

# Next Steps

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## **Comprehensive Cognitive Assessment**

Non-diagnostic,  
identification of root  
causes, & treatment plan

## **Psychoeducational Assessment**

Full diagnostic  
assessment, identification  
of root causes, &  
treatment plan

## **Outside Test Review treatment plan**

## **Dig Deeper**

ADHD Workshop or  
6 Keys Course





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## How The Nectar Group Can Help

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- Psychoeducational assessments to diagnose or rule out ADHD.
- Cognitive assessments to pinpoint strengths and weaknesses and determine intervention.
- Assessment Review & Recommendations
- Cognitive Skills Training to strengthen key skills such as working memory, attention, and processing speed.
- Individual tutoring to fill academic gaps resulted from inattention and hyperactivity.
- Executive Function and Study Skills Coaching to improve skills such as self-advocacy, study skills, time management, and organization.
- Family integrative health & wellness coaching.
- Digital Courses
- Free consultations to determine best next steps.

# Thank you so much for your time!

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**Feel free to contact us at:**



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