

The background features abstract, overlapping green geometric shapes in various shades of lime and forest green, creating a dynamic, layered effect. The shapes are primarily triangular and polygonal, with some thin white lines intersecting them.

ADHD, Executive Functioning and GT:

How to Drive a Race Car When the Steering Wheel Doesn't Work

Kristin Kassaw, MD

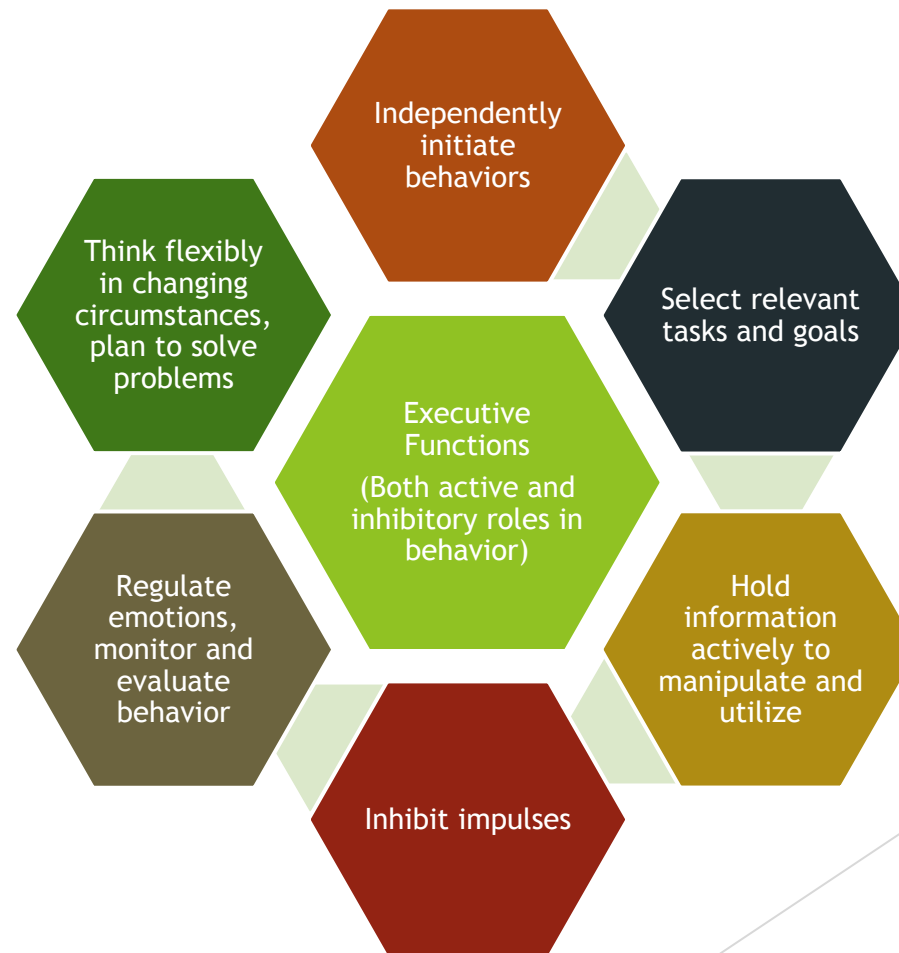
"ADHD is like having a Ferrari engine for a brain with bicycle brakes. Strengthen the brakes and you have a champion."

- Edward Hallowell



Executive Functioning

- ▶ Executive functions consist of interrelated control processes regulating goal directed behavior including
 - ▶ selection
 - ▶ initiation
 - ▶ organization
 - ▶ execution and monitoring
- ▶ Executive functioning primarily occurs in the prefrontal cortex



Examples of Executive Function In Daily Life



Planning a project



Inhibiting emotional responses in social settings



Setting goals



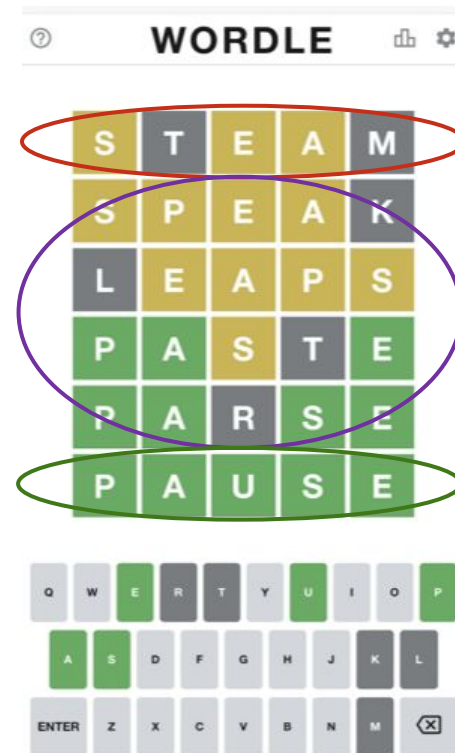
Delayed gratification



Responding to feedback



Adjusting strategies in problem solving





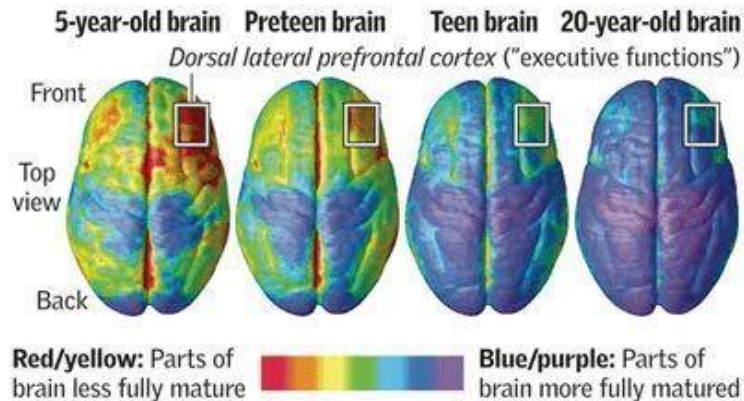
The Marshmallow Test

- ▶ Study on delayed gratification led by psychologist Walter Mischel in 1972.
- ▶ Children were offered a choice between one marshmallow now or marshmallows if they could wait while the researcher left the room for about 15 minutes.
- ▶ Children were followed for years and those who waited showed greater educational attainment and better outcomes in other domains of functioning.
- ▶ More contemporary studies have shown improvement in the test with increasing preschool attendance
- ▶ Further analysis of test performance suggests affluence is significant factor (impact of scarcity)
- ▶ Implied ability to delay gratification is static but can be influenced by surroundings

Executive Function from Childhood to Adulthood

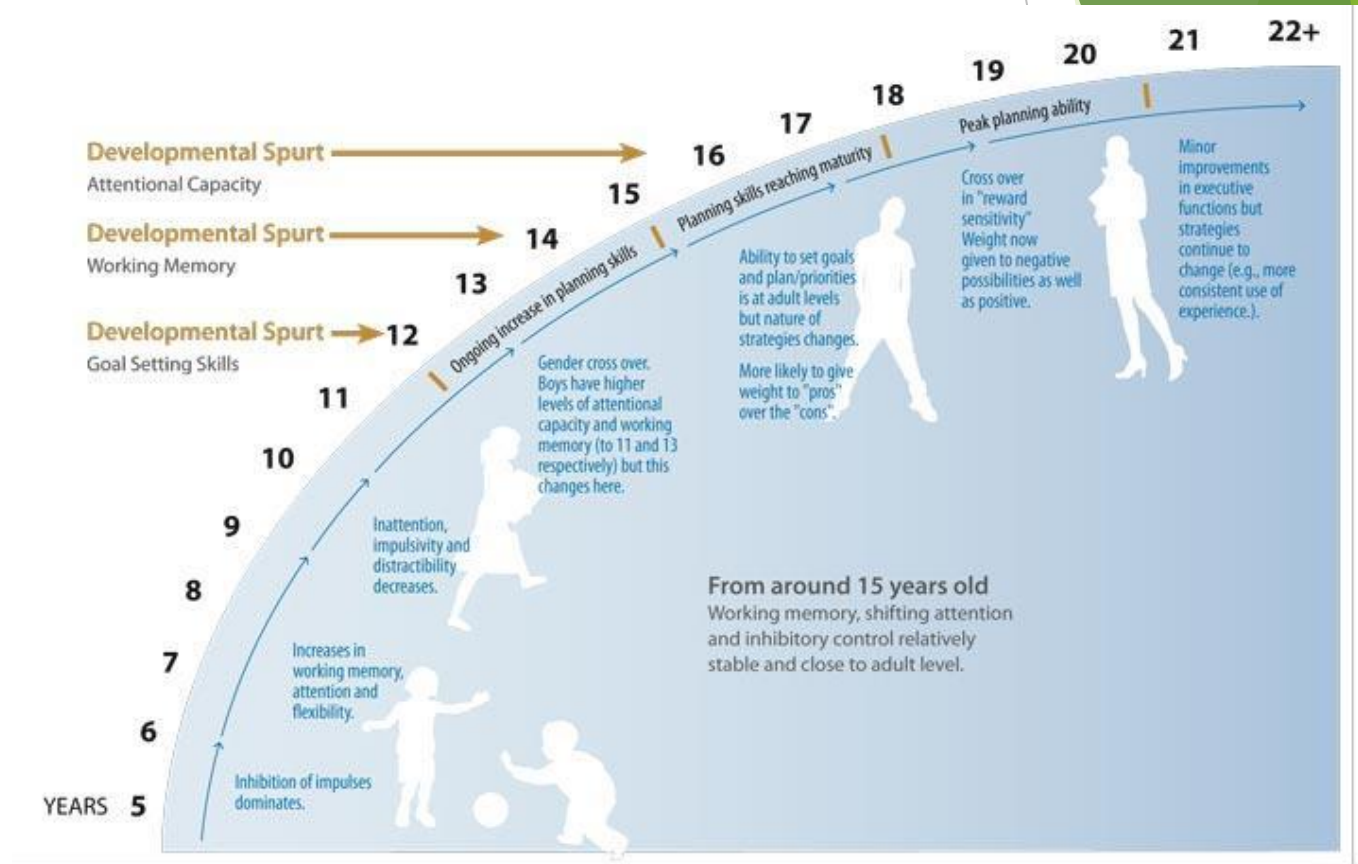
Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:



Sources: National Institute of Mental Health;
Paul Thompson, Ph.D., UCLA Laboratory of
Neuro Imaging

Thomas McKay | The Denver Post



ADHD and Executive Function - What's the link?

- ▶ The disorder most associated with executive function deficits is Attention Deficit Hyperactivity Disorder (ADHD)
 - ▶ ADHD is a neurodevelopmental disorder, which may persist across the lifespan
 - ▶ ADHD is characterized not only by problems with regulation of attention but also working memory, processing speed and executive functioning
 - ▶ Difficulties with organization, planning time management, emotional regulation, self monitoring, and impulse control are prominent
- ▶ Children with ADHD are **delayed 2-3 years** in development of skills like executive functioning

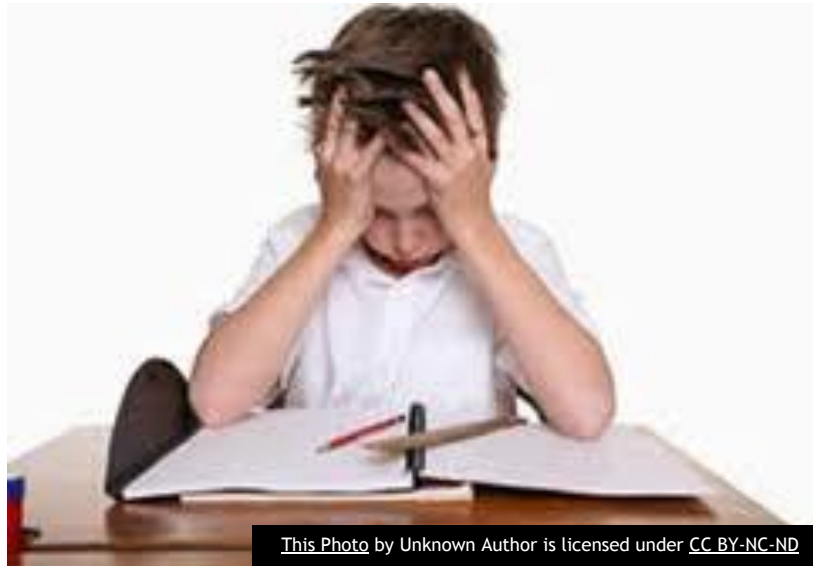


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ADHD and Gifted Children

- ▶ Gifted children can have asynchronous development compared to peers.
- ▶ Some gifted children have well developed executive functioning compared to peers.
- ▶ GT students with ADHD have a significant gap between intellectual ability and executive function (2 years ahead in math, 2 years behind in executive functioning)
- ▶ Executive function deficits can be mischaracterized as willful
- ▶ May take a toll psychologically - shame, anxiety, low self esteem, helplessness





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Elementary Age Children

- ▶ Disorganization
- ▶ Losing things
- ▶ Frustration with tasks requiring sustained effort
- ▶ Avoiding complicated tasks
- ▶ Problems in peer relationships
- ▶ Inflexibility in problem solving
- ▶ Feeling overwhelmed and anxious

Middle and High School Years

Unable to plan and break down a project into components

Avoids complex projects due to feeling overwhelmed

Unable to prioritize

Unable to reflect on work quality

Struggles with changing course on a project after feedback

Difficulty with emotional regulation

Difficulty in peer communication, struggles to monitor behavior

Struggles with or avoids tasks such as driving

Unable to shift attention from phone, laptop, video games



Executive Function and Parenting

- ▶ A child with executive function difficulties is a challenge for parents
 - ▶ Parents may also have problems
 - ▶ Parents who had good EF at the same age
- ▶ Hard to be a child's frontal lobe
- ▶ Tendency to compare to successful peers
- ▶ Family sacrifices due to poor time management
- ▶ Emotional regulation
- ▶ Knowing when to support and when to allow failure
- ▶ Social isolation



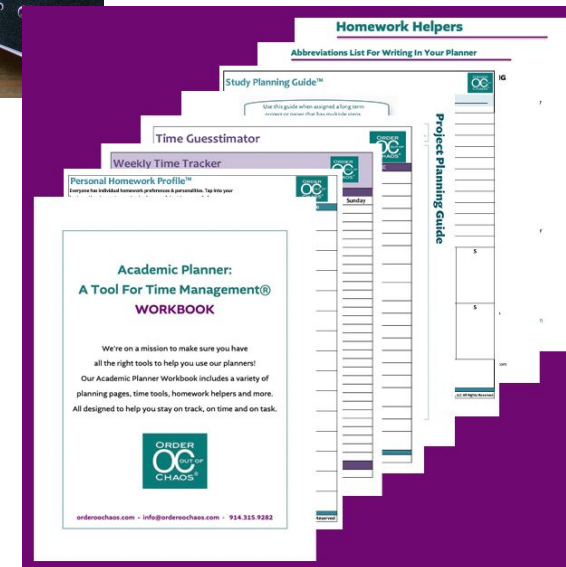
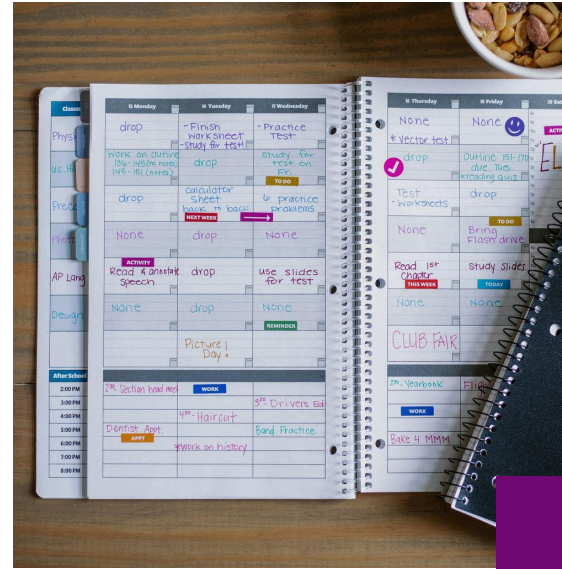
What can be done at home?

- ▶ Everyone takes a deep breath. Repeat as often as necessary.
- ▶ Help create structure (scaffolding)
 - ▶ Get a good planner (www.orderoutofchaos.com)
 - ▶ Create space for work (quiet but supervised) with no devices
 - ▶ Model daily to do lists
 - ▶ Check Schoology daily
 - ▶ Help with planning a big project
 - ▶ Check in often on work progress
 - ▶ Encourage short breaks with a timer
 - ▶ Know when to go to bed
- ▶ Focus on improvement over time



What can be done at school?

- ▶ Let teachers know your child's needs (a letter at the start of the year, emails)
- ▶ Start the process for obtaining accommodations or modifications
 - ▶ 504 plan
 - ▶ IEP
- ▶ Help create a plan for structure at school
 - ▶ How a child will use an organizer
 - ▶ Help build a strategies and routines (e.g., math problems with many steps) - Do it the same way every time.



More Suggestions for Parents

- ▶ Attend to self esteem and the tendency to compare
 - ▶ Tendency of gifted children to struggle with perfectionism and anxiety
 - ▶ Tendency to compare self negatively to highly organized peers
 - ▶ Normalize the strategies your child is using - “You wear glasses so you can see, right?”
 - ▶ Allow space for disappointment
 - ▶ It’s about progress
- ▶ Get outside help
 - ▶ Educational evaluation
 - ▶ Executive functioning coach
 - ▶ Tutors



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Any
Questions