

Executive Functioning in Adolescence

The Challenge Kids Face: To get things done...without punching someone in the nose in the process.

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Executive Function Disorder is not a specific, stand alone diagnosis or condition.

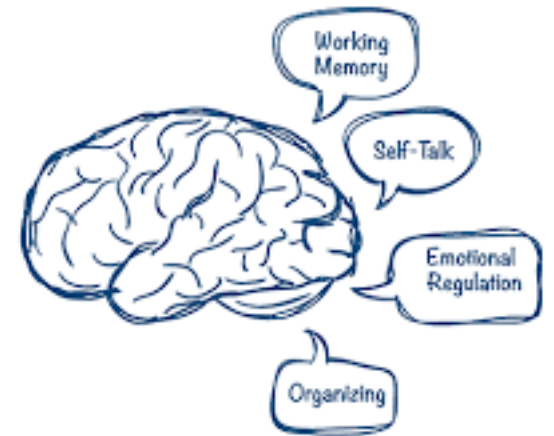
Executive Function Disorder is a group of skills that encompass a wide range of abilities and are greatly influenced by:

- Development
- Sleep
- Nutrition
- Social emotional skills
- Technology
- Cultural aspects
- Age
- Brain chemistry

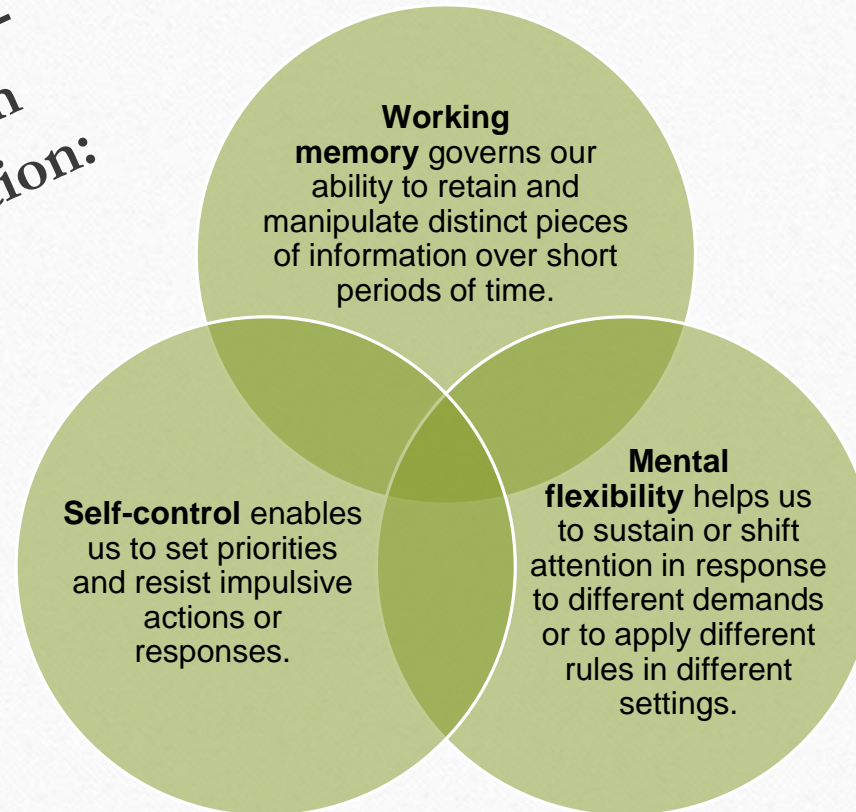
Definition



- **Executive function and self-regulation** skills are the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully. Just as an air traffic control system at a busy airport safely manages the arrivals and departures of many aircraft on multiple runways, the brain needs this skill set to filter distractions, prioritize tasks, set and achieve goals, and control impulses.



Executive function and self-regulation skills depend on three types of brain function:



These functions are highly interrelated, and the successful application of executive function skills requires them to operate in coordination with each other. Each type of executive function skill draws on elements of the others.

Executive function is responsible for a number of skills, including:

- Paying attention
- Organizing, planning, and prioritizing
- Starting tasks and staying focused on them to completion
- Understanding different points of view
- Regulating emotions
- Self-monitoring (keeping track of what you're doing)



Trouble With Executive Function in Preschool

- Gets frustrated easily, might throw things instead of asking for help
- Has trouble following directions and often forgets what to do
- Has lots of tantrums over things that seem minor
- Acts out instead of expressing feelings
- Struggles with basic classroom tasks like finding things in a cubby or packing up at the end of the day
- Raises hand but doesn't remember the answer when called on
- Is very stubborn about doing things a certain way
- Answers questions in a way that's off-topic



Trouble With Executive Function in Grade School

- Starts a task and gets distracted, then doesn't finish

- Can solve a math problem one way but gets stuck when asked to solve it a different way.

- Focuses on the least important thing you said

- Mixes up assignments and doesn't bring home the right books and handouts needed for homework

- Has a messy desk and backpack

- Panics when rules or routines change, like going out to dinner instead of ordering in because it's Friday and that's pizza night

- Sticks with a plan even when it's clear that the plan isn't working



Trouble With Executive Function in Middle School

- Wants to invite kids over but never gets around to scheduling it
- Hesitates to make afterschool plans and instead just follows what the other kids are doing
- Is still arranging materials in science lab while the other kids are halfway through the experiment
- Has a hard time starting a big assignment and focuses on the less important details first
- Gets very upset about seemingly small things, like running out of a favorite snack at home
- Often thinks the teacher is being “unfair,” like when told to do work at home that other kids finished in class



Trouble With Executive Function in High School



- Has trouble finishing short-answer tests on time
- Loses track of time and is often still “in the middle of something”
- Hasn’t filled out any of the job applications that have been sitting around for a month
- Tries to convince you to extend curfew but can’t give any good reasons why
- Has trouble working in groups and complains about the other kids
- Has a hard time taking and acting on feedback
- Is impulsive and takes lots of risks

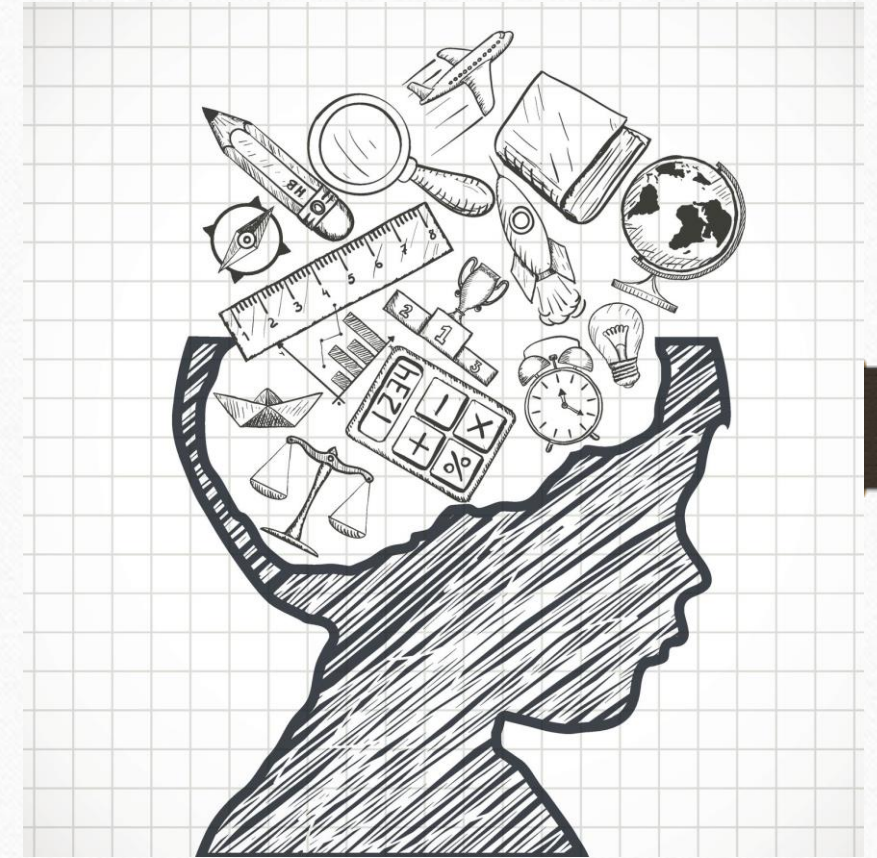


What are the causes?

- ADHD, Depression, Anxiety, BiPolar, OCD, Schizophrenia, Autism, Traumatic injuries to the brain, Dementia, Alzheimer's

How does ADHD relate to Executive Functioning?

- ADHD is a developmental impairment of executive function. ADHD can cause inattention, impulsivity, and hyperactivity.



Diagnosis & Assessment

What if I suspect ADHD- where do I start?

- Begin by determining if further assessment is needed- look at when and how is the child is disorganized- teachers can help (disorganization could be from a learning disability, depression, anxiety, or trauma)
- A neuropsychological evaluation
- Most common assessment tools for child's behavior if ADHD is suspected

BASC- Behavior Assessment System for Children

BRIEF- Behavior Rating Inventory of Executive Function

CAS- Cognitive Assessment System



Diagnosis & Assessment

Doctors can utilize a variety of tests to assess a person's executive function

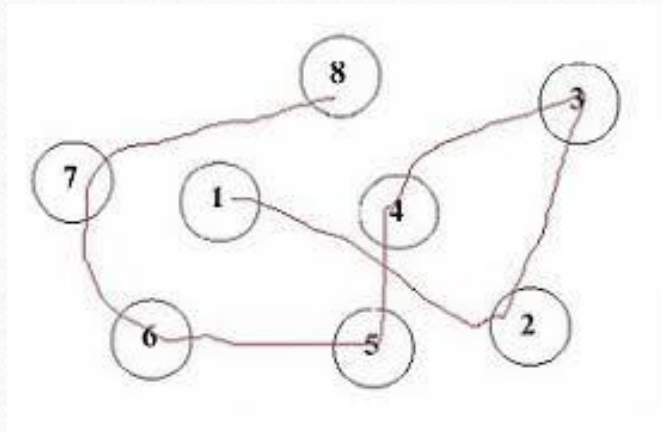
- Stroop task
- Trail making tests
- Clock drawing tests
- Verbal fluency tests
- Card sorting tests
- MRI scan

RED

GREEN

BLUE

PURPLE



With these symptoms
what is the diagnosis?

Or is there one?

- ADHD/ADD (9.4% ages 2-7)
- Specified Learning Disability (10% -2 or 3/class)
- Sensory Processing Disorder (1 in 20, 1 in 7)
- Anxiety (1 in 5)
- Autism Spectrum Disorder (1 in 40)
- Trauma
- Other

How do Societal/Environmental Factors impact EFS?

Temporary causes of executive function issues can include:

- Exhaustion
- Severe pain
- Stress
- Distracting environments
- Drug use
- Alcohol
- Severe boredom
- Technology
- Faced paced world



Impacts of Screen Time

- Disrupts sleep and natural body clock
- Desensitizes the brain's reward system
- Induces stress reactions
- Overloads the sensory system
- Reduces physical activity and time outside



High Energy
Low Tension

High Energy
High Tension

Low Energy
Low Tension

Low Energy
High Tension

Treatment Options

The type of treatment depends on the condition causing the executive function issues.

Treatment options can include:

- Stimulant medications
- Antidepressants
- Antipsychotic medications
- Occupational or Speech therapy
- Psychoeducation
- Cognitive Behavioral Therapy (CBT)
- Behavioral Support



Strategies To Improve Executive Functions Of The Brain



Impulse Control

What it means: Impulse control helps a child think before acting.

How it looks: Children with weak impulse control might blurt out inappropriate things. They're also more likely to engage in risky behavior.

Behavioral support: Work on thinking before speaking and acting in personal interactions

Classroom strategies: Provide student with a “Wait 5” strategy—counting to five before verbally responding to an input in the classroom, and a “Wait 3”



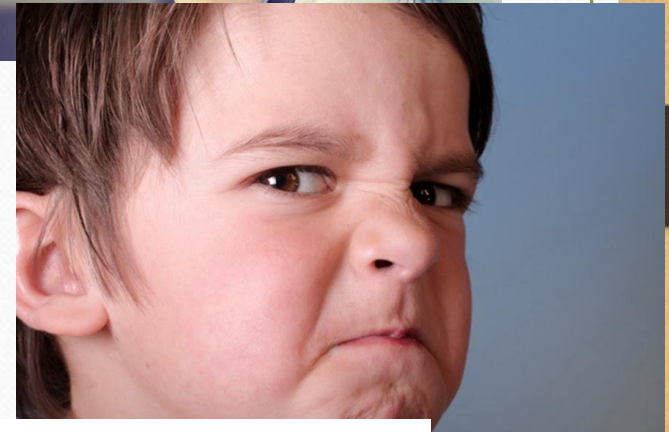
Emotional Control

What it means: Emotional control helps children keep their feelings in check.

How it looks: Children with weak emotional control often overreact. They can have trouble dealing with criticism and regrouping when things go wrong.

Behavioral Support: Help children see the relationship between thoughts and feelings. As they are able to control and reframe their thinking, their emotions can benefit in parallel.

Classroom strategies: Calm Classroom (mindfulness), Zones of Regulation, SEL state Standards, taking a break/resetting



Movement Control

What it means: Controlling how our body moves. Being able to physically act in an appropriate way.

How it looks: Children with weak movement control often are restless and have difficulty sitting still or waiting in line. They may be disruptive with their movements.

Behavioral support and classroom strategies: Set expectations ahead of time and develop a plan. Acknowledge and help child identify feelings to prevent outbursts, model self-control, suggest cool downs, praise effort, suggest appropriate movement opportunities.



Flexible Thinking

What it means: Flexible thinking allows students to adjust to the unexpected.

How it looks: Children with “rigid” thinking don’t “roll with the punches.” They might get frustrated if asked to think about something from a different angle.

Behavioral support and classroom strategies: Create weekly journal prompts that require students to do exactly that—see things from multiple perspectives. A child drops an ice cream cone in front of their friends. A coach screams at a player. A shy student wins an award—describe these situations from the multiple perspectives of different participants.

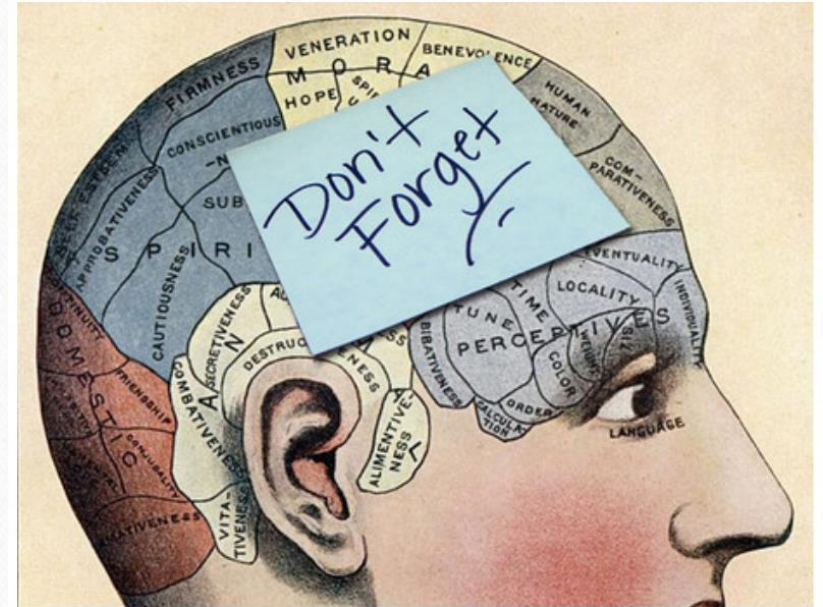


Working Memory

What it means: Working memory helps children keep key information in mind.

How it looks: Children with weak working memory have trouble remembering directions—even if they've taken notes or you've repeated them several times.

Behavioral support and classroom strategies: Use memory games or apps like Fit Brains Trainer or Lumosity, or use memory-based team-building games that require students to remember something as part of a classroom activity—names, colors, favorite things, etc., and then celebrate their success.



Self-Monitoring

What it means: Self-monitoring allows children to evaluate how they're doing.

How it looks: Children with weak self-monitoring skills may be surprised by a bad grade or negative feedback.

Behavioral support and classroom strategies:
“Stop & look”—periodically call out to the class
“Stop and look” so that they can intentionally pause at any given moment and assess what they're doing, how they're feeling, what their engagement level is, and how they are or aren't making progress towards a personal goal.

abaindia.wordpress.com

Sl. no	Resolutions	2/02/13	3/02	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	13/02	14/02	15/02
1.	Going to restaurant only once a week (Sunday)	NA	✓	NA	NA	NA	NA	NA	✗						
2.	Reading a book once a month														
3.	Running on treadmill everyday for 35 minutes	✓	✗	✓	✓	✓	✓	✗							
4.	Resistance training thrice a week			✓		✓		✓							

Planning & Prioritizing

What it means: Planning and prioritizing help your child decide on a goal and a plan to meet it.

How it looks: Children with weak planning and prioritizing skills may not know which parts of a project are most important.

Behavioral support and classroom strategies: Have students create mock projects—video games, music albums, books, businesses, apps, etc.—and then map out how they could accomplish that goal, then pair-share that map to open for feedback from partners in the classroom (which also helps with Emotional Control and Flexible Thinking as well).

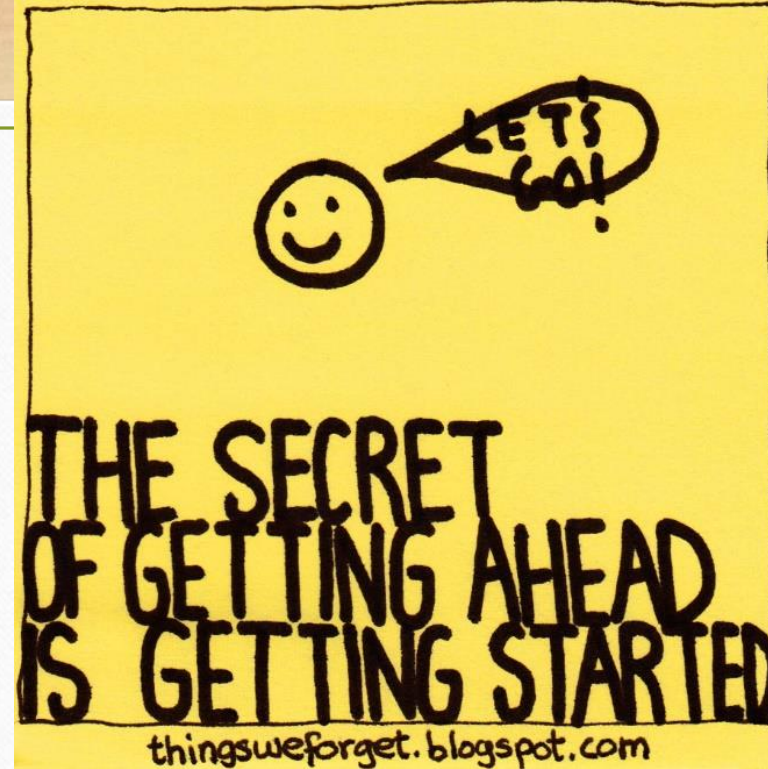


Task Initiation

What it means: Task initiation helps children take action and get started.

How it looks: Children who have weak task initiation skills may freeze up because they have no idea where to begin.

Behavioral support and classroom strategies: Create daily prompts of various tasks to complete, and have students brainstorm different “starting points,” then share out.



Organization

What it means: Organization helps your child keep track of things physically and mentally.

How it looks: Children with weak organization skills can lose their train of thought—as well as their cell phone and homework.

Behavioral support and classroom strategies: :
Organizational apps. Checklists. Planners.
Different things work for different students.
Experiment, persist, and find what works to help students organize themselves.



So What Can I Do?

- Become a loving brain manager
- Build Executive Functioning
- Keep the big picture in mind
- Look for opportunities to teach but recognize you can't force development
- Help build resiliency
- Avoid comparing to other children
- Be selective in scheduling
- Seek support if your child falls behind



Specific strategies for parents of teens:

- Assume laziness is not the issue
- Pick your battles
- Use natural or logical consequences
- Be willing to negotiate
- Involve others when you can
- Build in verification
- Offer effective praise
- Set realistic goals
- Offer a range of opportunities



Who can help?

- Teachers
- Counselors
- Physicians
- Occupational Therapists
- Social Workers
- Friends
- ?

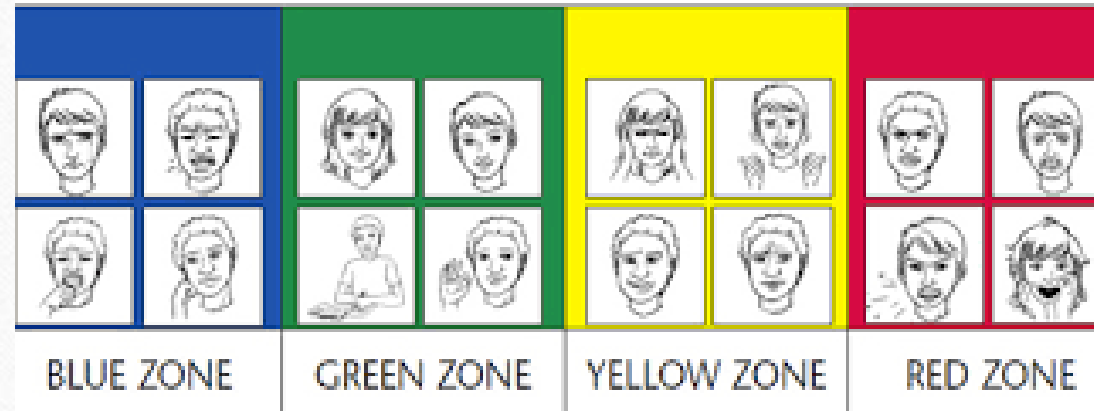


Other Strategies/Resources

- Medication
- Counseling
- Tutoring
- Calm Classroom
- Zones of Regulation
- Social Thinking



The **ZONES** of Regulation®



More Resources

- Thetoolbox.com
- Understood.org
- Chadd.org
- Additudemag.com

Questions?