

# What Is Executive Function Disorder?

BY [JANICE RODDEN](#)

## What Is Executive Functioning?

Broadly speaking, executive functions refer to the cognitive and mental abilities that help people engage in goal-directed action. They direct actions, control behavior, and motivate us to achieve our goals and prepare for future events. People with executive function disorder (EFD) struggle to organize and regulate their behavior in ways that will help them accomplish long-term goals.

Attention deficit disorder ([ADHD or ADD](#)) and executive functions are tightly linked, but far from synonymous. They both make it exceedingly difficult to complete tasks and stay organized, but EFD is a broad condition that also affects attention, learning, and social, organizational and time-management skills in ways that differ from ADHD.

The seven major types of self-regulation associated with executive function are as follows:

1. Self-Awareness: commanding self-directed attention
2. Self-Restraint: inhibiting yourself
3. Non-Verbal Working Memory: holding things in your mind to guide behavior
4. Verbal Working Memory: retaining internal speech
5. Emotional: using words and images along with self-awareness to alter how you feel about things
6. Self-Motivation: motivating yourself to do things when no outside consequences exist
7. Planning and Problem Solving: finding new approaches and solutions

*[Self Test: [Could You Have an Executive Function Deficit?](#)]*

## What Is an Executive Functioning Disorder?

The abilities above don't all develop at once, but rather in a sequence — one skill building atop the next. All of the executive functions interact with each other, and impact how individuals regulate their behavior to create positive future outcomes.

Executive functions begin developing by age two, and are fully developed by age 30. People with ADHD often are 30 to 40 percent delayed in development, which makes them more likely to act motivated by short-term rather than longer-term goals.

The back of the brain is where you store information that is already learned. The front part of the brain is where you use this information to be socially effective and succeed in life. This prefrontal cortex mediates executive functioning and it contains four major circuits.

- The “what” circuit controls working memory, helping you execute plans, goals, and specific steps needed to complete a project.
- The “when” circuit helps you organize the order in which you complete activities, and address timelines.
- The “why” circuit controls emotions — what you think about, and how you feel.
- The fourth “how” circuit controls self-awareness of your feelings and experiences.

People with ADHD and EFD may experience impairments in one or more of these circuits and, therefore, their symptoms may touch memory, planning, emotional regulation, and/or social skills.

[\*\[Free Download: Common Executive Function Challenges — and Solutions\]\*](#)

Read on to learn more about EFD, and what therapies and interventions can help. Consult with a physician if you recognize the symptoms below in your or your child.

### **Symptoms of EFD: What Is an Executive Functioning Deficit?**

People with EFD often experience time blindness, or an inability to plan for and keep in mind future events that aren’t in the near-term. They also have difficulty stringing together actions to meet long-term goals. This is not an attention problem in the present tense, but rather a sustained attention problem.

People with EFD have trouble organizing materials and setting schedules. They may often misplace papers, reports, and other materials for school or work. They might have difficulty keeping track of personal items or keeping their home or bedroom organized.

Executive functions allow people to do the following:

1. Analyze a task
2. Plan how to address the task
3. Organize the steps needed to carry out the task
4. Develop timelines for completing the task
5. Adjust or shift the steps, if needed, to complete the task
6. Complete the task in a timely way

When a person’s executive functions fail, he or she has trouble analyzing, planning, organizing, scheduling, and completing tasks. People with EFD commonly lack the ability to handle frustration, start and finish tasks, recall and follow multi-step directions, stay on track,

self monitor, and balance tasks (like sports and academic demands). Fixing the area of deficit is key to solving academic or work difficulties.

*[When Executive Functions Falter and Fail]*

## **Types of EFD**

There are not multiple types of executive function disorder.

## **EFD and ADHD**

ADHD is a cognitive disorder and a developmental impairment of executive functions – the self-management system of the brain. While most people with ADHD will have some executive function impairment, a lot of the symptoms of EFD mirror those of inattentive-type ADHD but go beyond the *DSM* criteria for ADHD. Like ADHD, you cannot “fix” executive functioning issues; they are a part of the physiology of the brain.

The following six clusters of executive functions tend to be impaired in individuals with ADHD:

1. Activation: organizing tasks and materials, estimating time, getting started
2. Focus: finding, sustaining, and shifting attention as needed
3. Effort: regulating alertness, sustaining motivation and processing speed
4. Emotion: managing frustration and modulating feelings
5. Memory: using working memory and accessing recall
6. Action: monitoring and regulating physical activity

Russell Barkley, Ph.D., who has been at the forefront of exploring the relationship between ADHD and EFD, says, “It is not that the individual does not know what to do. It is that somehow it does not get done.”

## **Causes of EFD**

Executive function disorder is a problem with the brain functions that impairs a person’s ability to analyze, plan, organize, schedule, and complete tasks.

Physicians aren’t sure why some people have executive function disorder. Research indicates executive functions may be heritable, or passed from parent to child, so a parent with EFD may have a child with EFD. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2762790/>)

EFD could be the result of differences in the prefrontal cortex. A study found that people with disorders, diseases, or injuries that damage that area of the brain are more prone to difficulties with executive functioning. (<http://bmb.oxfordjournals.org/content/65/1/49.full>).

## Diagnosing EFD

An EFD evaluation typically begins with an exam to rule out other conditions with similar symptoms. Your primary care physician may refer you to a neurologist or audiologist for additional testing. The specialist will consult previous medical records, and examine performance at school/work, and administer additional tests.

The most common EFD evaluation is the Behavior Rating Inventory of Executive Function (BRIEF), a written survey that kids/young adults, parents, and teachers complete to assess executive functioning. It comprises 86 questions designed to pinpoint the biggest area of difficulty. Additional evaluations include:

- **Conners 3:** a rating scale that evaluates ADHD and EFD using parent, self, and teacher reports
- **Barkley Deficits in Executive Functioning Scale (BDEFS) for Adults:** assesses EFD using self and other reports
- **Comprehensive Executive Function Inventory (CEFI):** compares a person to a norm group using parent, teacher, and self-report assessments

The specialist may want to conduct an intelligence test to compare potential with actual functioning, and interview the person with executive function difficulties.

EFD is often diagnosed during the transitions to 6th or 9th grade, when school structures and schedules change dramatically, and academic expectations increase. Parents and teachers often don't get why kids can't work independently on an assignment, and assume they'll "pick up" the necessary skills. It's important to start helping kids with ADHD/EFD early, and to acknowledge the problems those disorders cause so that kids don't feel stupid or lazy.

## Treatment Options for EFD

Experts recommend a range of strategies to help strengthen the areas of weakness that EFD creates. The first method uses occupational or speech therapists, psychologists, or reading tutors to learn how to work around problem areas. Cognitive behavioral therapy, used in combination with medication to treat any coexisting conditions like ADHD, is very effective at treating executive functioning deficits including problems with inhibition, emotion regulation, time management, and planning in adults. CBT is less effective with children.

Many experts recommend redesigning the environment to help people with EFD remember to stay on task. For examples, adults may compensate for working memory deficits by making information external – using cards, signs, symbols, sticky notes, lists, journals, and apps. Patients can likewise make time external by using clocks, timers, computers, counters, and other devices that track time intervals. Use external motivation, like points systems, being

accountable to others at work and school, daily school report cards – anything that reinforces accomplishing goals.