

What is ADHD? The impact of ADHD on Daily Life

Attention-deficit/hyperactivity disorder (ADHD) is not simply a problem with paying attention, as in listening to a speaker, but rather a developmental impairment of a complex range of executive functions (EFs). EFs include a wide range of central control processes of the brain that connect, prioritize, and integrate other functions needed for self-management.

EF can be compared to a symphony orchestra made up of very fine musicians, but without a conductor to organize and integrate the musician's individual efforts. The problems with ADHD are not with those parts of the brain that would correspond to, per se, the individual musicians, but in the management system that controls and manages activities and integrates them moment by moment. The term "executive functions" refers to this management system, which facilitates the use of our mental functions for managing the multiple tasks of daily life.

Impairments of EFs can occur at the most basic levels of behavior management: difficulty with self-control of actions and verbalization may manifest as hyperactivity or extreme impulsivity in the earliest school years or before. Other impairments of EFs are subtler, impacting memory, organizing, and planning abilities that are not developed or expected until much later, sometimes not until later elementary school grades or in junior high or high school.

The primary areas of impairment that result from a person having ADHD include:

1. **Activation:** Difficulty in organizing tasks and materials, estimating time, and prioritizing tasks and trouble getting started on work tasks.
2. **Focus:** Difficulty focusing, sustaining focus, and shifting focus from one task to another. In addition, focusing on reading is particularly difficult for many people with ADHD. Words are generally understood as they are read, but often have to be read over again in order for the meaning to be understood. They can comprehend the words as they read them, but the meaning does not stay in their minds.
3. **Effort:** Difficulty with regulating alertness, sustaining effort, and processing speed. People with ADHD can often perform short-term projects well, but have much more difficulty with sustained effort over longer periods of time. They also find it difficult to complete tasks on time. Many also experience chronic difficulty regulating sleep and alertness.
4. **Emotion:** Difficulty managing frustration and modulating emotions. People with ADHD often have difficulties managing frustration, anger, worry, disappointment, desire, and other emotions in order to complete the task at hand. They find it very difficult to get the emotion into perspective, to put it to the back of their minds, and to get on with what they need to do.

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5. **Memory:** Difficulty utilizing working memory and accessing recall. People with ADHD have great difficulty remembering where they just put something or what they were about to say. They may find it difficult to remember what they put aside while attending to other tasks. In addition, they often complain that they cannot recall what they have learned when they need it. In people with ADHD, there appears to be an inadequate "search engine" of the brain, to activate stored memories, integrating these with current information as needed to guide thoughts and actions. These problems with recall of learned material and with recalling one task or thought after putting it aside for another are examples of the impairments of working memory, an important EF impaired by ADHD.

6. **Action:** Difficulty monitoring and regulating self-action. Many people with ADHD, even those without problems of hyperactive behavior, report chronic problems in regulating their actions. They often are too impulsive in what they say or do, and often also in the way they think, jumping too quickly to inaccurate conclusions. Such impulsivity can be quite problematic at any age. They often have problems with monitoring the situation in which they are interacting. They often fail to notice when other people are puzzled or hurt or annoyed by what they have just said or done and thus fail to modify their behavior in response to specific circumstances. Often they also report chronic difficulty in regulating the pace of their actions, in slowing down or speeding up as needed for specific tasks.