



Diagnosing and **M**anaging **C**ognitive **C**hanges in MS

Cognition refers to thinking skills supported by the human brain, including the processing of incoming information, attention and concentration, learning and memory, planning, problem-solving and decision making, and acting on information and communicating it to others. At least 65% of people with MS experience some changes in cognitive functioning.

The Relationship Between MS and Cognition

- Cognitive changes can occur at any time, even as a first symptom of MS.
- They can occur with any disease course but are more common in progressive MS.
- The changes are usually mild to moderate and generally progress slowly.
- Cognitive changes are not significantly tied to degree of physical disability; a person with significant physical limitations may have no cognitive problems while a person with significant cognitive limitations may have no physical limitations. Therefore, one cannot tell by looking at someone with MS whether he or she is experiencing cognitive changes.
- Cognitive problems are a primary reason why people leave the workforce early.
- Cognitive problems can affect a person's self-esteem, interfere with communication, and impact relationships.
- The sooner these problems are recognized, the sooner one can develop strategies to manage them.

When Cognitive Testing is Appropriate

- When you, your loved ones, healthcare provider, or colleagues have noticed changes in thinking
- When you have difficulty carrying out your responsibilities at home or work due to thinking difficulties
- When you are considering applying for disability
- When you want to identify your cognitive strengths and weaknesses so that you can start developing strategies to compensate for problems you're experiencing

How Cognition is Evaluated

- A brief evaluation (e.g., screening measure, interview) is recommended on a regular basis to identify potential problems.
- People who screen positive for cognitive changes are referred for a more comprehensive evaluation, including a mood evaluation. Both depression and anxiety can impact cognitive functioning, so treating the depression or anxiety may improve a person's cognition.
- Neuropsychologists, as well as some speech-language pathologists and occupational therapists, evaluate cognitive functioning. They use a variety of standardized, objective cognitive assessment tools with the goal of determining whether and how cognitive changes may be interfering with your ability to function effectively at work and at home.

How Cognitive Changes are Treated

- Although many medications have been evaluated, none have demonstrated effectiveness in large-scale clinical trials.
- Disease-modifying therapies that reduce disease activity (number of relapses, lesion activity as shown on magnetic resonance imaging (MRI), and degree of tissue loss) may slow cognitive changes.
- Cognitive rehabilitation includes:
 - Exercises to improve attention and memory
 - Organizational tools and strategies that compensate for changes – for example, filing systems, work and family calendars, templates for completing complex tasks like bill-paying, meal-planning, and projects at work

Taking the Important First Step

The standard neurologic examination does not detect most cognitive changes in people with MS. Therefore, people who are experiencing a change in cognitive function need to let their MS provider know about it so that an assessment can be done and a management plan can be determined.