

2025 Fall Milestones Audio Newsletter Transcript

Listen to the podcast:

JAMES: 00:04

[MUSIC] Changes in cognition—the ability to think, reason, and problem-solve—are often the first symptoms of multiple sclerosis. More than half of people living with the disease will develop cognitive challenges, which can undermine confidence and independence, as well as relationships at home, work, or in the community.

This issue of MileStones features some of Kessler Foundation's groundbreaking research on cognitive function in MS. The findings show how impaired cognition impacts daily activities, insights that are advancing new strategies and interventions.

MATILDA: 00:47

Early changes, everyday impact authored by Dr. YAEL GOVEROVER

Challenges in cognitive function can adversely affect the lives of people with multiple sclerosis. New insight is helping make a difference.

Cognition drives every aspect of daily life. Whether preparing meals, remembering appointments, or paying bills, cognitive skills—the ability to think, plan, make decisions, and recall information—are at play in everything we do. For individuals with MS, however, changes in cognition can significantly limit their capacity to perform daily activities. Even subtle changes can lead to greater stress and anxiety, lower self-esteem, and lost independence.

Cognition drives every aspect of daily life. Whether preparing meals, remembering appointments, or paying bills, cognitive skills—the ability to think, plan, make decisions, and recall information—are at play in everything we do. For individuals with MS, however, changes in cognition can significantly limit their capacity to perform daily activities. Even subtle changes can lead to greater stress and anxiety, lower self-esteem, and lost independence. Recognizing these changes and equipping individuals and their families with the strategies to manage them effectively are critical steps in helping to maintain quality of life.

MATILDA: 02:18

Finding the link

Kessler Foundation researchers are exploring the link between cognitive function and everyday performance in people with MS.

Studies have shown that individuals with MS report a far lower level of participation in activities than before being diagnosed. This decline was noted in several key areas, including household chores, social and educational events, travel, and high-energy activities, such as exercising, swimming, or fishing.



2025 Fall Milestones Audio Newsletter Transcript

Furthermore, reduced participation directly correlates to impairments in executive functioning—the ability to plan, problem-solve, and manage tasks—as well as to declining motor skills. It is also related to higher rates of depression.

One Kessler Foundation study found that people with MS struggle more in managing finances due to cognitive deficits than those without the disease. Individuals with impaired memory, attention, and executive function had greater difficulty with budget planning, paying bills, and processing financial information. They also had difficulty navigating online banking and credit card sites, problem-solving, and handling other money-related matters.

Other common tasks such as taking medications, shopping, or ordering food online require decision-making, memory, sequencing, and trouble-shooting skills. These complex activities, known as Instrumental Activities of Daily Living, involve higher-level cognitive functioning than basic daily activities, such as bathing and dressing.

MATILDA: 03:45 Identifying daily challenges

Traditional cognitive tests often miss the nuances and scope of everyday performance. However, new tools to evaluate cognitive skills and levels of daily activity are helping researchers to better understand the link between thinking and performance. These discoveries are leading to improved strategies that support greater independence for people living with MS. Equally important is the need for individuals—and their family members—to recognize any changes in their ability to perform daily activities and discuss them with their medical team.

MICHAEL: 04:42 Actual Reality: A Clearer Lens on Everyday Cognitive Function

Before diving into the details, let's take a moment to understand what Actual Reality truly offers. It's more than a test—it's a window into how cognitive challenges show up in the real world. From navigating technology to managing daily tasks, Actual Reality reveals what traditional assessments often miss. It helps us see the subtle struggles, the real-life impact, and the opportunities for meaningful intervention.

Now, let's explore how Actual Reality makes that difference:

- DIRECT REAL-WORLD IMPACT. Actual Reality provides a direct measure of how cognitive challenges manifest in complex, technology-driven tasks essential for independent living. It shows what tasks are difficult in a real-life context, beyond what standard tests might reveal.
- IDENTIFICATION OF SUBTLE IMPAIRMENTS. Research consistently demonstrates that individuals with MS can experience significant limitations in everyday activities, even when



2025 Fall Milestones Audio Newsletter Transcript

traditional "pen-and- paper" cognitive testing doesn't reveal a clear impairment. Actual Reality is highly sensitive to these subtle, yet impactful, difficulties.

■ FOUNDATION FOR TARGETED INTERVENTIONS. By identifying the cognitive demands and specific steps involved in real-world activities, Actual Reality provides crucial information for developing personalized rehabilitation strategies.

SARAH: 06:33

When it comes to living with multiple sclerosis, the challenges aren't always visible. Beyond physical symptoms, cognitive hurdles can quietly shape how individuals navigate daily life. But what if we could see those challenges in action—understand them not just in theory, but in practice?"

"Researchers are doing just that, putting skills to the test in a way that's never been done before."

Actual Reality is a promising new tool that provides real-time insight into the cognitive challenges of people with MS when performing everyday tasks.

"Understanding functional cognition is crucial for empowering individuals with MS to live as fully and independently as possible," says Yael Goverover. Functional cognition refers to how an individual uses thinking and processing skills to accomplish daily activities. An innovative assessment tool, known as Actual Reality, is helping researchers better understand how these skills affect the ability to execute everyday tasks.

Actual Reality uses internet-based tasks to evaluate how well people perform simulated, everyday life activities. For example, one study had individuals with MS purchase airline tickets. Instead of simply asking how they might do this, researchers observed them as they navigated complicated websites, processed detailed information, made decisions, and problem-solved in real time. "This interactive approach offers valuable insight on how cognition impacts real-world functioning. It is a significant step forward in increasing the sensitivity, accessibility, and relevance of such tools," notes Dr. Goverover.

SARAH: 08:18

From assessment to intervention—Kessler Foundation is leading the way in transforming research into real-world impact. Our studies show that both in-person and online programs, including telehealth, can significantly enhance memory, cognitive skills, and overall performance."

Several Kessler Foundation studies have also shown that both in-person and online programs, including telehealth, can enhance memory and other cognitive skills, along with performance. These interventions aim to help individuals:

- Develop self-awareness. Learn to recognize their own cognitive strengths and challenges, and how these influence their daily activities, a process called metacognition.
- Self-generate strategies. Find the tools and tactics that work best for them.
- Improve use. Apply these strategies to daily activities.



2025 Fall Milestones Audio Newsletter Transcript

"We're encouraged by the fact that study participants have shown improvement in memory, self-awareness, strategy use, and overall functional status. We now have the opportunity to further tailor support for individuals with MS," adds Dr. Goverover.

RODGER: 09:35 Here are some tips to reinforce cognitive strength

FIND YOUR STRATEGY. Discover what tools and techniques work best for you—

ENGAGE IN MEANINGFUL ACTIVITIES. Prioritize what is important to you and gives you a sense of purpose.

MODIFY ACTIVITIES. Adjust your schedule to your physical, cognitive, and energy levels.

BREAK DOWN TASKS. Divide projects into smaller, easier to manage steps. This will help build confidence and momentum. For example, if preparing dinner, start by gathering the ingredients or utensils you will need.

JAMES: 10:23 Cognitive challenges may begin subtly, but their effects on daily life for people with multiple sclerosis are profound. From managing finances to remembering appointments, cognition shapes how we live, connect, and thrive.

At Kessler Foundation, researchers like Dr. Yael Goverover are uncovering the critical links between cognitive function and everyday performance. Their studies reveal how even small shifts in memory, attention, and executive skills can lead to reduced participation, increased stress, and diminished independence.

Dr. Goverover brings a unique perspective to this work. As a visiting scientist in the Centers for Neuropsychology, Neuroscience, and Multiple Sclerosis Research at Kessler Foundation—and a professor of occupational therapy at New York University—she combines clinical expertise with research innovation. Her focus: developing tools and interventions that help people with MS and brain injury navigate daily life with greater confidence and independence.

But there is hope. New tools and strategies are helping individuals with MS—and their families—recognize these changes early and take action. By understanding the nuances of daily challenges, we can empower people to maintain their quality of life and independence.

Dr. Goverover's work is paving the way for more effective assessments and interventions, ensuring that cognition is not just measured—but truly understood.

Because when we understand the everyday impact, we can make every day better.

And that brings us to the end of today's episode of Milestones.

If you found this conversation insightful, be sure to subscribe, share, and leave us a review. For more stories and research that are changing lives, visit kesslerfoundation.org.



2025 Fall *Milestones* Audio Newsletter Transcript

Until then—stay curious, stay informed, and stay connected."

JAMES: 12:34

Kessler Foundation is recruiting individuals with MS for research studies. For more information and eligibility, links are in the program notes.