

MASSACHUSETTS GENERAL HOSPITAL



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*Maintaining
Mental Fitness From
Middle Age and Beyond*

Why It's Important to Understand Your Risk for Cognitive Impairment

Take control of manageable risk factors to help improve your odds of preserving healthy brain function well into the future.

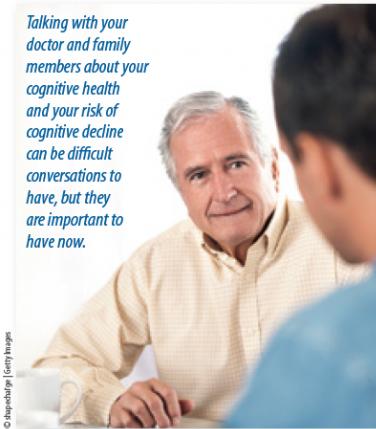
Statistics show that the majority of older adults never develop dementia, yet most of us still fear losing our memory and thinking skills. But the more you understand about your risk of cognitive decline, the better positioned you'll be to take steps now to reduce your risks and plan for a future in which you may need help in managing your affairs.

Alessandro Biffi, MD, who leads the Aging and Brain Health Research Group at Massachusetts General Hospital, adds that thinking about your risk for changes in thinking skills and memory loss now may also help fuel your efforts to reduce those risks—at least the ones that are within your power to manage. He notes that factors such as age and family history may be beyond your control, but behaviors such as smoking and conditions including depression

and hypertension often can be treated effectively even later in life.

“Our underlying risk for cognitive decline, as can be determined on the basis of these factors, represents first and foremost an important baseline to inform our effort to prevent it by modifying certain risk factors,” Dr. Biffi says. “For example, knowing of your family history of cognitive impairment—and ideally also knowing the type of cognitive disorder present in the family—can inform interventions, such as control of vascular risk factors, diet, and exercise, in the crucial early- and mid-life years (ages 35-65) that we know are critical to building a solid foundation. Later in life, knowing about family history can inform strategies to monitor relevant risk factors, such as checking blood pressure closely for those at risk of vascular cognitive impairment. This ensures that cognitive performance is optimized as much as possible. Finally, should disease-related cognitive decline set in, knowing one’s risk can substantially speed up the evaluation and diagnosis process—thus getting people to

treatment intervention faster and earlier in the disease course.”



Sizing Up Your Risk

If you want to truly get a handle on your risk of cognitive decline and dementia, look to your parents and grandparents, if possible, for clues about hereditary risk factors.

“Reviewing and collecting information on your personal family history is an excellent starting point,” Dr. Biffi says. “This process is part of regular evaluations with primary care, but individuals should also make note of cognitive decline and dementia cases in the family—specifically those relatives to whom you are genetically related.”

He recommends trying to obtain

the following information about cognitive decline or dementia to the extent possible, given the gaps that are usually present in piecing together family medical histories:

- What was the diagnosis?
- At what age did symptoms start?
- What kind of symptoms were observed?
- What kind of workup was performed?
- How did the condition progress, if at all?

"I would advise against use of consumer- based genetic tests, as they currently lack the ability to meaningfully inform evaluation of cognitive decline risk," Dr. Biffi says. "Next, I would encourage readers to work with their primary care provider in evaluating the vascular modifiable risk factors, as laid out by the American Heart Association in the Life's Simple 7 model."

The model (<https://www.heart.org/en/healthy-living/healthy-lifestyle/my-life-check--lifes-simple-7> or tinyurl.com/2p97kxps) focuses on factors including blood pressure, cholesterol, blood glucose, exercise, diet, weight and smoking.

"Particular attention should be paid to ensuring that progress is made consistently and across as many risk factors as possible at the same time, in order to maximize benefits," Dr. Biffi says. "I also always encourage individuals to reflect upon the nature and quality of their sleep. Do they get at least seven or eight hours of sleep? Are there

interruptions? Are there any snoring or abnormal breathing sounds that may be related to sleep apnea?"

He adds that it's also important to evaluate social and cognitive engagement patterns. Do you have hobbies? Do you have social connections that keep you engaged with other people in activities you enjoy?

"You should also consider whether mental health problems that could potentially impact cognitive performance are present," Dr. Biffi advises. "This primarily includes depression and anxiety, though more could be included."

He also encourages individuals to review the Brain Care Score developed by researchers at the Henry and Allison McCance Center for Brain Health at MGH as a way to self-evaluate current performance in terms of supporting individual brain health. To learn more, visit tinyurl.com/yj6pfbrd, or scan this QR code:



The "Risk" of Knowing Your Risk

As the picture of your cognitive decline risk becomes clearer, you may find yourself becoming a little stressed...or perhaps more than a little.

"There is indeed the downside of risk prediction," Dr. Biffi explains. "There is the risk of causing demotivation,

followed by decreased engagement in strategies aimed at optimizing brain health, among those deemed to be at high risk due to family history, genetic test results, or personal medical history. The important thing to remember is that, outside of very special and incredibly rare circumstances—rare genetic disorders, mostly—everyone can reduce their risk for cognitive decline with the adequate prevention strategies."

Even if certain factors, including early signs of mild cognitive impairment, are present, this time can and should also be used to start conversations with family members about long-term planning regarding finances, living arrangements, medical care, and other matters best discussed before thinking skills and decisionmaking become strained.

At the same time, an assessment of your cognitive risk that raises red flags should be seen as motivation to take control of manageable risk factors.

"No matter how high it is to begin with, everyone should take the information on their underlying risk as a planning tool, not as a 'prophecy' of unavoidable outcomes set in stone," Dr. Biffi says. "The purpose of evaluating risk for cognitive decline is to inform and motivate interventions to address it—not to scare individuals and reduce their risk of succeeding in managing said risk." **MMM**

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