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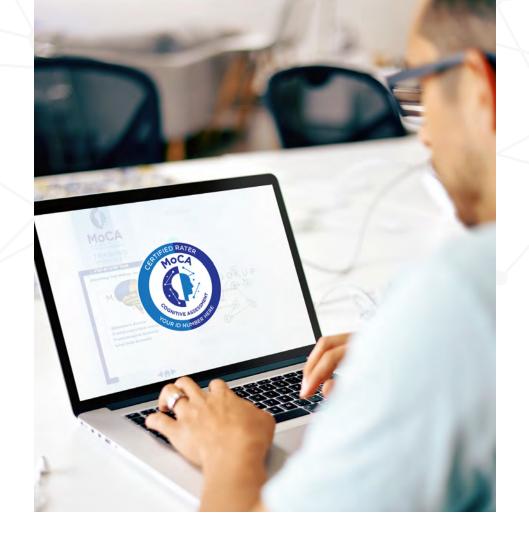
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### WHAT IS MoCA?

MoCA is a short interactive test that accurately assesses multiple cognitive domains:

- + Short-term memory (e.g., remembering new information)
- + Visuospatial abilities
  (e.g., drawing; identifying spatial relationship among items)
- + **Executive functions** (e.g., planning; problem solving)
- + Attention, concentration and working memory (e.g., multi-step tasks)
- + Language (e.g., finding appropriate word)
- + Orientation to time and place (e.g., remembering date; knowing current location)



### WHO CAN ADMINISTER MoCA?

Any healthcare worker who has completed MoCA's official training and certification program can administer the test. However, only medical professionals with specific training in cognition can interpret the results or make a diagnosis.

Medical professionals who have successfully completed MoCA's mandatory training and certification module have a unique MoCA ID number, which assures their competency in explaining, administering and scoring MoCA.





### SCREENING AND DIAGNOSIS

MoCA is a screening tool used by healthcare professionals as a first step to detect evidence of cognitive impairment. With proper administration and scoring, MoCA results should reflect your cognitive performance accurately. As a screening tool, MoCA is not designed to diagnose a specific condition or disease.

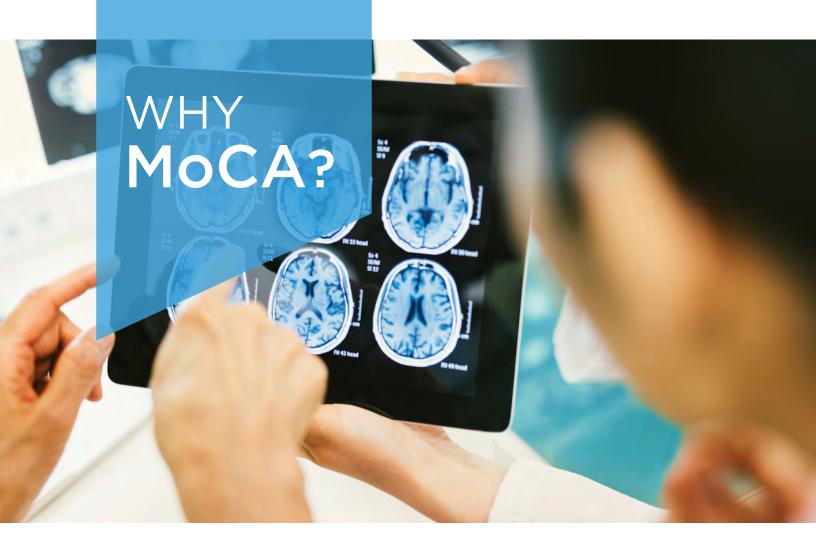
If the medical professional administering MoCA notes a low score or observes certain issues, the patient may be referred for further consultation, including complete neuropsychological evaluation, blood tests and imaging exam to diagnose the disease or condition.



#### WHAT DOES THE MOCA SCORE MEAN?

MoCA scores range from 0 to 30, with 26 or higher being considered normal (i.e., no cognitive issues apparent)

Scoring less than 26 does not necessarily mean there are any cognitive issues present. However, a low score would result in further evaluation.



MoCA is renowned and favored by medical professionals for its **high sensitivity** to detect early stages of cognitive decline and Mild Cognitive Impairment (MCI).

MoCA is the most validated cognitive screening tool for detection of MCI, based on over 500 independent peer-reviewed scientific studies comparing it to other screening tools.

Because of its high sensitivity and validity, MoCA is also a standard scale used in scientific research. MoCA has been referenced over 15,000 times in published medical studies.





# WHAT IS MILD COGNITIVE IMPAIRMENT?

Mild cognitive impairment (MCI) is a condition in which a person experiences a slight—but noticeable—decline in mental abilities (memory and thinking skills) compared with others of the same age. The minor decline in abilities is noticeable by the person experiencing them or by others who interact with the person, but the changes are not severe enough to interfere with normal daily life and activities.

MCI can be associated with Alzheimer's Disease and dementia, but it could also relate to other disease or non-disease conditions. Parkinson's disease, diabetes, COVID, head trauma, drug side effect, depression and stress are among the many potential causes of mild cognitive impairment.





### SIGNS AND SYMPTOMS OF **MCI**

Although some cognitive decline is expected in healthy aging—such as occasional forgetfulness or slower mental processing—MCI would entail frequently occurring forgetfulness or thinking skills that are noticeably diminished compared to peers of the same age.

Signs of MCI may include, among other things, regularly:

- + forgetting appointments
- + having trouble coming up with the right word
- + losing train of thought
- + making poor decisions
- + getting lost



### WHY IT IS IMPORTANT TO CARE

Many MCI-related conditions are treatable or manageable. In general, the earlier a condition is detected, the better a patient's potential outcome can be. MCI screening is therefore important to ensure the earliest possible detection and best possible outcomes.

From a personal health perspective, steps can still be taken to manage non-treatable conditions. In terms of interpersonal, professional and financial matters, earlier detection and awareness of MCI can allow for better decision making and limit challenges for the patient and related parties.



### ORGANIZATIONAL SKILLS AND ROUTINES

Useful organizational tactics reduce reliance on memory and can limit stress and frustration. For example, having a specific hook by the door to hang your keys avoids the potential of misplacing them.

Developing habits and routines also helps certain tasks become nearly automatic and less reliant on memory. For example, vacuuming after dinner every Monday or bringing in the mail every day after breakfast.



#### Here are some other tips:

- + Install a whiteboard in the home and carry a pocket journal for daily or weekly to-do lists. Note items in chronological order and cross out when completed.
- + Program alarm clocks or timers to ring when it is time to do a certain task or to leave the house
- + Use sticky notes (Post-it) as reminders. Strategically place these by the entrance door or on the fridge.
- + Do tasks as soon as they come to mind. For example, If you remember that you must make a payment, do so immediately to avoid forgetting.



#### PHYSICAL ACTIVITY

It is well known that physical exercise has positive effects on the muscles, lungs, and heart. However, it is important to remember that physical activity also has significant benefits for cognition. In fact, many studies have shown physically active individuals to perform better on cognitive tasks than sedentary individuals.

The World Health Organization recommends a minimum of 2.5 hours of moderate physical activity per week for adults over 65. This could be 30 minutes of physical activity, five times per week.

We understand that exercise increases the amount of oxygen transported to the brain, which results in better cognitive performance.





#### Specifically, through exercise:

- + New brain cells are developed that support better memory
- + Brain volume increases benefiting information processing and retention
- + Blood circulation improves artery health and reduces risk of stroke and vascular dementia
- + Rates of depression decrease, which are correlated with MCI

#### **COGNITIVE ACTIVITY**

To support brain health, it is important to commit to stimulating cognitive activities every day. Tasks or activities requiring mental effort are exercise for the brain.

Certain activities require only minor cognitive effort, such as driving a car which is done almost automatically from a cognitive perspective. Other activities which are more cognitively demanding are beneficial for brain health. Examples include playing chess, reading a novel, watching educational programs, writing letters, taking a class, and learning a skill.

#### Some important points:

- The intellectual challenge that activity represents for the individual is more important than the activity selected
- + Dedicate substantial time for cognitive activity and add it to a daily schedule
- Practice a variety of different cognitive activities
- + Choose activities which are enjoyable to encourage participation.







#### **MEDITERRANEAN DIET**

Research has also demonstrated diet is not only an important factor for physical health, but for brain health as well. The Mediterranean Diet, in combination with physical and brain exercise, is recommended for limiting cognitive decline.

#### In summary, this diet includes:

- + Eating vegetables, fruits, and whole grains every day
- $+\,$  Eating fish, poultry, beans, and eggs a few times per week
- + Moderate portions of dairy
- $+\,$  Limited consumption of red meat
- + Enjoying red wine in moderation
- + Eating with friends and family to benefit mood, have stimulating conversations, and build interpersonal connections



### PREPARING FOR THE FUTURE

It is always a good idea to determine and document personal wishes before one is unable to do so. If someone is experiencing cognitive decline, from any cause, it is important to assess if they have legal capacity to make decisions and plan for their future.

If a specialized medical professional determines that an individual is experiencing cognitive decline and still has legal capacity, they should participate in important planning decisions, as soon as possible, relating to:

- + Home living situation
- + Home care or facility care
- + Property, investments and loans
- + Estate planning
- + Assigning power of attorney for future decisions

For legal questions relating to estate or designating power of attorney, contact a reputable lawyer in your area who is specialized in elder law or estate planning.

## TREATMENT AND RESEARCH

Many conditions and diseases that cause MCI have proven treatment options and therefore with medical intervention symptom progression can be slowed down, stopped, or reversed—especially with early detection and intervention.

Certain conditions or diseases, unfortunately, do not yet have widely applied treatment options. However, as discussed earlier proper diet, regular exercise, and daily cognitive stimulation can manage cognitive decline. Furthermore, scientific research is consistently developing and testing new treatment options for various conditions—this is a first step toward a new approved treatment.





The most sensitive and validated cognitive screening tool

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