
How to administer the Montreal Cognitive Assessment (MOCA)

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Introduction: The MOCA is an efficient tool for evaluating cognitive function, especially for identifying mild cognitive impairment or early dementia. Here, we're going to dive into how you can administer the MOCA effectively.

The MOCA is a one-page 30-point test that is freely available online at www.mocacognition.com. The test assesses the following cognitive domains:

- Short-term memory recall
- Visuospatial abilities
- Executive functions
- Attention, concentration, and working memory
- Language
- Orientation to time and place

Preparation: Ensure the patient is in a comfortable and quiet environment, free from distractions. Make sure to reassure the patient that there's no pass or fail—this is just a measure to understand their cognitive function better.

Step-by-Step Guide to Administering the MOCA:

- 1. Visuospatial/Executive:** Start with the Trail Making B task. Ask the patient to draw a line, alternating between numbers and letters (1-A-2-B-3-C...). Next, ask them to copy a cube drawing, and to draw a clock with the hands reading 10 past 11.
Script: "I'm going to ask you to do a few tasks that help us understand how you solve problems. First, could you draw a line from number to letter like this: 1-A-2-B-3-C...? Then, see this cube? Try to copy it exactly. Finally, can you draw a clock showing the time as 10 past 11?"
- 2. Naming:** Show the patient images of a lion, rhinoceros, and camel and ask them to name each one. This targets language processing and semantic memory.
Script: "Now, I'm going to show you some pictures. Could you tell me what each one is?"
- 3. Memory:** Read a list of five unrelated words (at a rate of one word per second) to the patient and ask them to repeat them. Do this twice. Later on, after completing other tasks, ask the patient to recall these words.
Script: "I'm going to say five words. After I say them, I want you to repeat them back to me. We'll do this twice. Later on, I'll ask you to remember these words again."
- 4. Attention:** Read a list of digits and have the patient repeat them back, first forward, then backward. Next, read a list of letters, asking the patient to tap their hand each time they hear the letter 'A'. Finally, ask them to subtract 7 from 100 and keep subtracting 7 from each new number five times.
Script: "Next, I'll read out some numbers. Try to repeat them in the same order. Then, we'll do it again, but this time, say them backward. After that, when I read some letters, tap your hand whenever you hear the letter 'A'. Lastly, let's do some subtraction. Start from 100 and subtract 7, and keep subtracting 7 for five more steps."
- 5. Language:** This section assesses fluency and the ability to generate words within a category. Ask the patient to list as many words as possible beginning with the letter 'F' in one minute, excluding proper nouns and the same word with different endings.
Script: "Now let's play a word game. Can you tell me as many words as you can that start with the letter 'F' in one minute? But remember, no names or the same word with different endings."

6. **Abstraction:** Assess abstract thinking by asking the patient to describe how certain pairs of words are alike.
Script: "Let's think about how things are alike. For example, a banana and an orange are similar because they are both fruits. Can you tell me how a train and a bicycle are similar?"
7. **Delayed Recall:** After a few minutes of engaging the patient with the other tasks, ask them to recall these words again.
Script: "Remember those five words I asked you to repeat earlier? Can you tell me what they were?"
8. **Orientation:** Test the patient's orientation by asking them the current date, month, year, day of the week, and the city and place they're in.
Script: "Finally, could you tell me today's date? Also, what's the month, the year, the day of the week, and the place we're in?"

Scoring: Each section of the MOCA has a different score. Add these together for a total out of 30. Generally, a score of 26 or above is considered normal. However, scores may be adjusted based on education level -- e.g., add one extra point if the patient has 12 years of education or less.