

# The Quick-Cog test (QuickCog)

## Instructions for Administration and Scoring

The Quick-Cog test (QuickCog) is a screening instrument designed to detect mild cognitive dysfunction (e.g., cognitive decline less severe than mild cognitive impairment [MCI]). The test comprises 14 items and evaluates multiple cognitive domains, including language, temporal and spatial orientation, memory, calculation, attention, conceptual reasoning, visuospatial ability, executive function, and processing speed.

For each item, the examiner reads the italicized words (i.e., instructions) aloud to guide the subject.

For selected items, the instruction may be read more than once. If the subject does not understand the instruction, the examiner may repeat part or all of it. However, prompts beyond the scope of the printed instruction are not permitted.

[Timing] indicates that the examiner should start the stopwatch immediately after delivering the instruction.

Mark the designated box  for each correctly answered question. The content to the left of the gray box  constitutes the practice trial and is not scored.

Maintain a consistent pace throughout testing. Do not spend an excessive amount of time on any single item, even when no time limit is specified. If the examiner confirms that the subject has provided no further response, proceed to the next item. If the subject is taking longer than expected to respond, briefly state, “Not all questions are expected to be answered,” and prompt him or her to move to the next question.

Establish rapport with the subject. Do not provide feedback on responses (e.g., by

saying “correct,” “incorrect,” or indicating that a response needs correction) unless explicitly permitted in the instruction.

**Checklist before testing:**

- 1) Print the test form on both sides of a single sheet of A4 paper.
- 2) Ensure that the desktop is clear of all objects other than the test form, test manual, stopwatch, and pen or pencil.
- 3) Ensure that no clock with hands and numbers (or images of these objects) is visible to the subject.
- 4) When completing the header of the test form, do not read the date of testing aloud, do not ask the subject for the date, and do not inquire about the date from others while the subject is present.
- 5) If the subject is accompanied by others, instruct them to refrain from providing prompts or comments during testing.

**1. Naming**

Administration: Present each object to the subject with the instruction: “*Please name this object.*”

Scoring: Award 1 point for each correct response. The target objects are: (1) pencil and (2) battery.

**2. Orientation**

Administration: Ask the subject to provide the following information: the name of the current location (hospital or building name), the city or town, the current month, the current date, and the current day of the week.

Scoring: Award 1 point for each correct response.

**3. Immediate Recall**

Administration: Present the first trial as follows: Say “*Remember the three words*” and then read aloud: “Train, Apple, Blue” at a rate of approximately 1 second per word. Subsequently, instruct the subject: “*Tell me the three words*”. Mark the designated box for each correct response.

After the subject has recalled all three words or indicated inability to recall further words, proceed to the second trial: Say “*Remember the five words*” and then read aloud: “Train, Apple, Blue, Newspaper, Frog” at a rate of approximately 1 second per word. Subsequently, instruct the subject: “*Tell me the five words*”. Mark the designated box for each correct response.

After the subject has recalled all five words or indicated inability to recall further words, proceed to the final trial: Say “*Remember the seven words*” and then read aloud “Train, Apple, Blue, Newspaper, Frog, Moon, School” at a rate of approximately 1 second per word. Subsequently, instruct the subject: “*Tell me the seven words*.” Mark the designated box for each correct response.

All instructions should be presented only **once**.

Scoring: No points are awarded for this item.

#### **4. Sentence Repetition**

Administration: Provide the following instruction to the subject: “*Please repeat the following sentence exactly as I say it: The alarm clock next to the table lamp woke the two kids.*”

Read the sentence clearly at a steady pace, word by word. The test sentence is presented only **once** and should not be repeated.

Scoring: Award 1 point for exact repetition of the sentence.

An exact repetition must include each word in the original sequence without substitution or modification. For example, substituting “can wake” or “wakes” for “woke,” or “two children” for “two kids,” does not constitute an exact repetition.

## 5. Verbal Fluency

Administration: Provide the following instruction to the subject: “*Please name as many animals as possible in one minute.*” Set a timer of 1 minute.

Mark a box for each correct animal (e.g., insects, mammals, fish, and birds). Count only one animal per repeated category. For example, the rooster, hen, and chick are counted as one response. Mythical or legendary animals (e.g., dragons) are permitted.

Scoring: Award 1 point if the subject names at least 17 correct animals.

## 6. Digits Forward

Administration: Provide the following instruction to the subject: “*Repeat the numbers exactly as I said them,*” and then read the example sequence (before the gray box) at a rate of approximately one digit per second. Mark the box if the answer is correct. Test the sequence in the middle and then on the right in the same manner.

Note: Each test sequence is read only once; do not repeat.

Scoring: Award 1 point for each correctly repeated sequence. Do not score the example sequence.

## 7. Digits Backward

Administration: Provide the following instruction to the subject: “*Repeat the numbers in backward order,*” and then read the example sequence (3 digits, before the gray box) at a rate of approximately one digit per second. Correct the subject if the sequence is repeated in forward, rather than backward order. Mark the box if the answer is correct.

Test the sequences in the middle and then on the right. For the test sequences (middle and right), do not correct or provide feedback on the subject's responses.

Note: Each test sequence is read only once; do not repeat.

Scoring: Award 1 point for each correctly repeated sequence. Do not score the example sequence.

## 8. Calculation

Administration: Ask the subject: *“Tell me the answers to the math questions.”* Read the questions one by one in order from left to right. Mark the box for each correct answer. This item examines mental calculation skills. The use of instruments including a pencil and paper is not allowed.

Scoring: Award 1 point for each correct answer (7, 5, 36, and 12).

## 9. Delayed Recall

Administration: Provide the following instruction to the subject: *“I asked you to remember seven words. Tell me these words.”* Do not present any cues. Mark the box (the first row) for each word correctly recalled by the subject.

After the subject has recalled all words that he/she can remember, provide the following category cue for each word that was not recalled by the subject, e.g., *“There are still two words. One word is a means of transportation.”* Mark the box (the second row) if the word is correctly recalled. Provide the following multiple-choice cue if the subject is still unable to recall the word, e.g., *“Which one do you think it was, Car, Airplane, or Train?”* Mark the box (the third row) if the word is correctly recalled.

Scoring: Award 1 point for each word **exactly** recalled without cues. The total possible score of this item is 7 points.

## 10. Similarities

Administration: Provide the following instruction to the subject: *“Tell me which classification the two things belong to: a cupboard and a chair.”* The first pair of

words (before the gray box) is a practice trial. If the subject does not provide the correct answer (furniture) but specific characteristics such as “made of wood” instead of an abstract category, say: “*They are both furniture.*” and then “*Tell me which classification the two things belong to: a carrot and a tomato.*” After the subject answers, say, “*Tell me which classification these two words belong to: a butterfly and a tree.*”

Scoring: The last two pairs are scored. Award 1 point for each correct answer (carrot, tomato: vegetable [not "plant"]; butterfly, tree: living organisms/things). The difference between two words is not a correct answer. For example, “a butterfly is a type of insect/animal, while a tree is a type of plant” would not receive points.

## **11. Timed Cube Copying**

Administration: Pointing to the printed cube, provide the following instruction to the subject: “*Draw an identical cube below.*” Begin timing immediately after delivering the instruction. Record the completion time (in seconds) on the line below. If the subject does not complete the drawing within 1 minute, proceed to the next item.

Scoring: Award 1 point if the copy is correct. A copy is considered correct if all 6 faces, 12 edges, and 8 vertices are present and each angle formed by two intersecting edges matches its counterpart in the original cube (e.g., the copy contains eight right angles, opposite edges are approximately parallel, and the eight edges forming the two square faces are approximately equal in length). Self-correction is permitted; the time required for any correction is included in the total completion time.

No points are awarded if the drawing is not completed within 1 minute. This item is not intended to assess motor function. Therefore, whether the lines are smooth or which hand is used to draw the cube does not affect the score.

## 12. Timed Clock Drawing

Administration: Ensure that no clock with hands, or image thereof, is visible in the testing environment. Provide the following instruction to the subject: “*Draw a clock. Draw a round clock face. Put all 12 numbers in the correct positions. Place clock hands at ‘5 minutes after 10.’*” Begin timing immediately after delivering the instruction. Record the completion time (in seconds) on the line below. If the subject does not complete the drawing within 3 minutes, proceed to the next item.

Scoring: Award 1 point if the drawing of the numbers is correct: all 12 numbers are present, the numbers are correct, they are arranged in the correct sequence, and all the numbers are positioned in approximately correct locations on the clock face.

Award 1 point if the clock hands are correctly drawn. A correct drawing depicts clock hands indicating “5 minutes after 10,” with the hour hand shorter than the minute hand and both hands positioned at approximately correct locations on the clock face.

No points are awarded if the drawing is not completed within 3 minutes. This item is not intended to assess motor function. Therefore, line quality and choice of drawing hand (right or left) do not affect the score.

## 13. Timed Small Maze

Administration: Provide the following instruction to the subject (text in parentheses denotes examiner actions; do not verbalize): “*Draw a line from the entry (pointing to the entry) to the exit (pointing to the exit) of the maze. Don’t go into any dead ends (pointing to a dead end), and don’t touch or cross any solid lines (pointing to a solid line).*” Begin timing immediately after delivering the instruction. Record the completion time (in seconds) on the line below.

After the drawing is completed, identify and indicate **all errors** to the subject,

such as going into dead ends or touching or crossing solid lines.

If the subject does not complete the task within 1 minute, proceed to the next item.

Scoring: No points are awarded for this item. This is a practice item.

#### **14. Timed Large Maze**

Administration: Provide the following instruction to the subject (text in parentheses denotes examiner actions; do not verbalize): “*Use the same rules. Draw a line from the entry (pointing to the entry) to the exit (pointing to the exit) of the maze. Don’t go into any dead ends (pointing to a dead end), and don’t touch or cross any solid lines (pointing to a solid line).*” Begin timing immediately after delivering the instruction. Record the completion time (in seconds) on the line below. If the task is not completed within 3 minutes, discontinue the test.

Scoring: Award 1 point if the drawing is correct (i.e., free of errors such as going into dead ends or touching or crossing solid lines). No points are awarded if the drawing is not completed within 3 minutes. This item is not intended to assess motor function. Therefore, line quality and choice of drawing hand (right or left) do not affect the score.

**Total score**: Compute the sum of all subscores listed on the right side.