

ADDENBROOKE'S COGNITIVE EXAMINATION - ACE-R

Final Revised Version A (2005)

Name : Date of birth : Hospital no. : <p style="text-align: center;"><i>Addressograph</i></p>	Date of testing: / / Tester's name: Age at leaving full-time education: Occupation: Handedness:
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ORIENTATION						
➤ Ask: What is the	Day	Date	Month	Year	Season	[Score 0-5] <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
➤ Ask: Which	Building	Floor	Town	County	Country	[Score 0-5] <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

REGISTRATION	
➤ Tell: 'I'm going to give you three words and i'd like you to repeat after me: lemon, key and ball'. After subject repeats, say 'Try to remember them because i'm going to ask you later'. Score only the first trial (repeat 3 times if necessary). Register number of trials	[Score 0-3] <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

ATTENTION & CONCENTRATION	
➤ Ask the subject: ' could you take 7 away from a 100? After the subject responds, ask him or her to take away another 7 to a total of 5 subtractions. If subject make a mistake, carry on and check the subsequent answer (i.e. 93, 84, 77, 70, 63 -score 4) Stop after five subtractions (93, 86, 79, 72, 65).	[Score 0-5] <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <small>(for the best performed task)</small>
➤ Ask: 'could you please spell WORLD for me? Then ask him/her to spell it backwards:	

MEMORY - Recall	
➤ Ask: 'Which 3 words did I ask you to repeat and remember?' 	[Score 0-3] <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

MEMORY - Anterograde Memory																					
➤ Tell: ' I'm going to give you a name and address and I'd like you to repeat after me. We'll be doing that 3 times, so you have a chance to learn it. I'll be asking you later' Score only the third trial	[Score 0-7] <input style="width: 40px; height: 20px;" type="text"/>																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%; text-align: center; font-size: small;">1st Trial</th> <th style="width: 20%; text-align: center; font-size: small;">2nd Trial</th> <th style="width: 20%; text-align: center; font-size: small;">3rd Trial</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Harry Barnes</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> </tr> <tr> <td style="padding: 2px;">73 Orchard Close</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> </tr> <tr> <td style="padding: 2px;">Kingsbridge</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> </tr> <tr> <td style="padding: 2px;">Devon</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> <td style="border-left: 1px dotted black; border-right: 1px dotted black; padding: 2px;">.....</td> </tr> </tbody> </table>		1 st Trial	2 nd Trial	3 rd Trial	Harry Barnes	73 Orchard Close	Kingsbridge	Devon	
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73 Orchard Close																		
Kingsbridge																		
Devon																		

MEMORY - Retrograde Memory	
➤ Name of current Prime Minister ➤ Name of the woman who was Prime Minister ➤ Name of the USA president ➤ Name of the USA president who was assassinated in the 1960's	[Score 0 -4] <input style="width: 20px; height: 20px;" type="text"/>

O R I E N T A T I O N & A T T E N T I O N

VERBAL FLUENCY - Letter 'P' and animals

➤ **Letters**

Say: 'I'm going to give you a letter of the alphabet and I'd like you to generate as many words as you can beginning with that letter, but not names of people or places. Are you ready? You've got a minute and the letter is P'

[Score 0 - 7]

--	--	--	--

>17	7
14-17	6
11-13	5
8-10	4
6-7	3
4-5	2
2-3	1
<2	0
total	correct

Y
C
N
E

➤ **Animals**

Say: 'Now can you name as many animals as possible, beginning with any letter?'

[Score 0 - 7]

--	--	--	--

>21	7
17-21	6
14-16	5
11-13	4
9-10	3
7-8	2
5-6	1
<5	0
total	correct

U
L
F

LANGUAGE - Comprehension

➤ Show written instruction:

[Score 0-1]

Close your eyes

E
G
A

➤ 3 stage command:

'Take the paper in your right hand. Fold the paper in half. Put the paper on the floor'

[Score 0-3]

LANGUAGE - Writing

➤ Ask the subject to make up a sentence and write it in the space below:
Score 1 if sentence contains a subject and a verb (see guide for examples)

[Score 0-1]

U
G
N
A
L

LANGUAGE - Repetition

➤ Ask the subject to repeat: **'hippopotamus'; 'eccentricity'; 'unintelligible'; 'statistician'**
 Score 2 if all correct; 1 if 3 correct; 0 if 2 or less.

[Score 0-2]

➤ Ask the subject to repeat: **'Above, beyond and below'**

[Score 0-1]

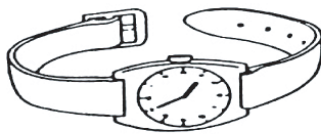
➤ Ask the subject to repeat: **'No ifs, ands or buts'**

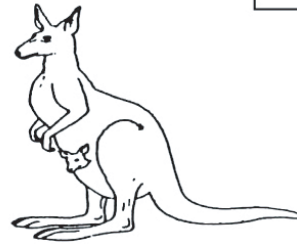
[Score 0-1]

LANGUAGE - Naming

➤ Ask the subject to name the following pictures:

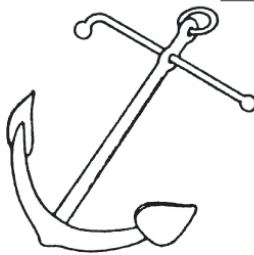


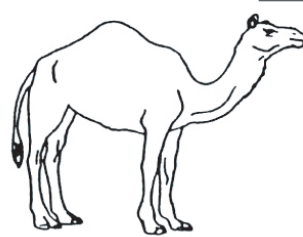




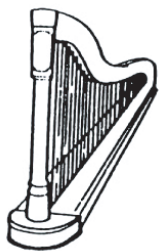
[Score 0-2]
 pencil +
 watch

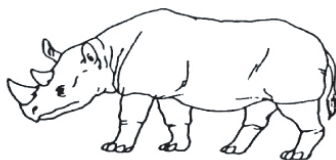






[Score 0-10]

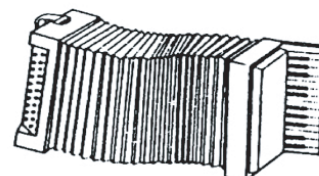












LANGUAGE - Comprehension

➤ Using the pictures above, ask the subject to:

- Point to the one which is associated with the monarchy
- Point to the one which is a marsupial
- Point to the one which is found in the Antarctic
- Point to the one which has a nautical connection

[Score 0-4]

E
G
A
U
G
A
N
A
L

LANGUAGE - Reading

➤ Ask the subject to read the following words: [Score 1 only if all correct]

[Score 0-1]

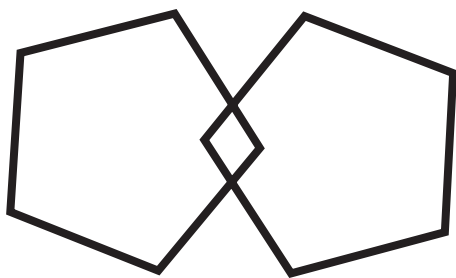
sew
pint
soot
dough
height

L
A
N
G
U
A
G
E

VISUOSPATIAL ABILITIES

➤ Overlapping pentagons: Ask the subject to copy this diagram:

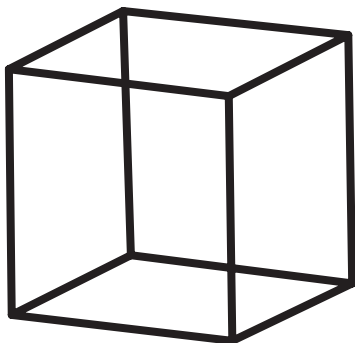
[Score 0-1]



L
A
T
I
T
A
T
I
O
N

➤ Wire cube : Ask the subject to copy this drawing (for scoring, see instructions guide)

[Score 0-2]



P
A
P
E
R
S
O
N
S
U
S
I
O
N

➤ Clock: Ask the subject to draw a clock face with numbers and the hands at ten past five. (for scoring see instruction guide: circle = 1, numbers = 2, hands = 2 if all correct)

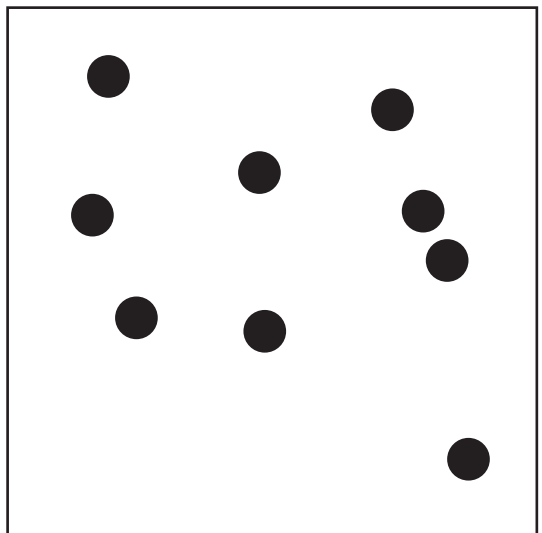
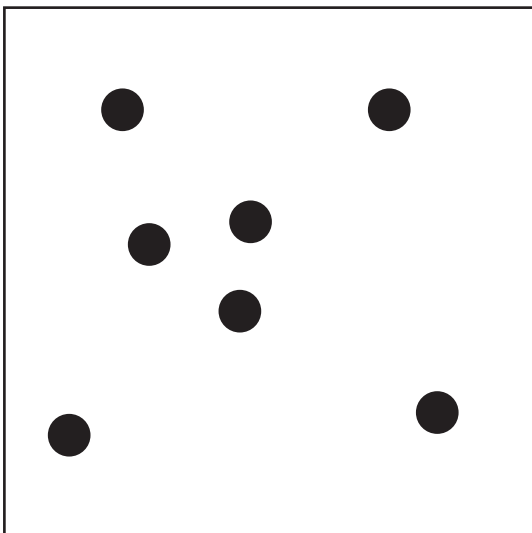
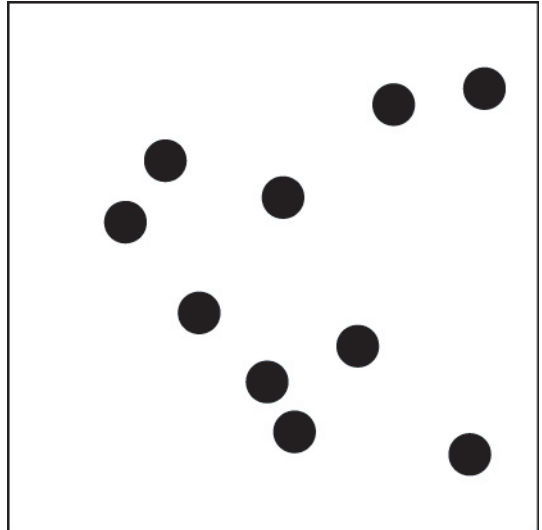
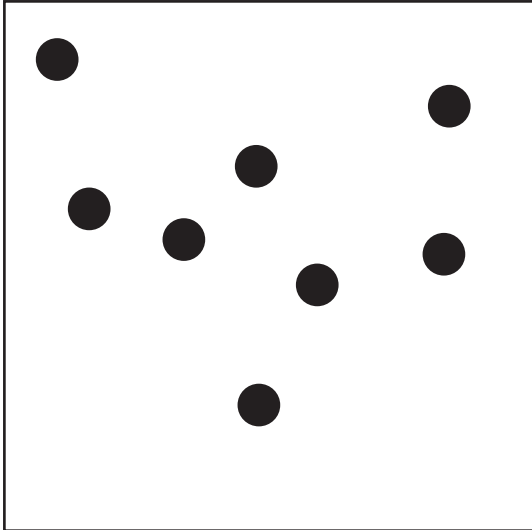
[Score 0-5]

V

PERCEPTUAL ABILITIES

➤ Ask the subject to count the dots without pointing them

[Score 0-4]



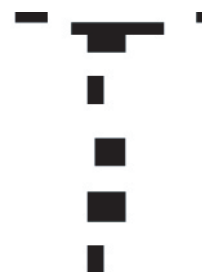
L
A
I
T
A
P
S
O
U
S
I
V

PERCEPTUAL ABILITIES

➤ Ask the subject to identify the letters

[Score 0-4]





V I S U O S P A T I A L

RECALL

➤ Ask "Now tell me what you remember of that name and address we were repeating at the beginning"

Harry Barnes
73 Orchard Close
Kingsbridge
Devon

.....
.....
.....
.....

[Score 0-7]

Y O R

RECOGNITION

➤ This test should be done if subject failed to recall one or more items. If all items were recalled, skip the test and score 5. If only part is recalled start by ticking items recalled in the shadowed column on the right hand side. Then test not recalled items by telling "ok, I'll give you some hints: was the name X, Y or Z?" and so on. Each recognised item scores one point which is added to the point gained by recalling.

[Score 0-5]

Jerry Barnes		Harry Barnes		Harry Bradford		recalled
37		73		76		recalled
Orchard Place		Oak Close		Orchard Close		recalled
Oakhampton		Kingsbridge		Dartington		recalled
Devon		Dorset		Somerset		recalled

M E M

General Scores

MMSE /30
ACE-R /100

Subscores

Attention and Orientation /18
Memory /26
Fluency /14
Language /26
Visuospatial /16

E R R O S C O

Normative values based on 63 controls aged 52-75 and 142 dementia patients aged 46-86

Cut-off <88 gives 94% sensitivity and 89% specificity for dementia
Cut-off <82 gives 84% sensitivity and 100% specificity for dementia