CANTAB Connect

Cognitive Test Selector

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		Input			Storage				Control					
		Practice	Attention		Memory				Executive Function and Decision Making					Social
	Cognitive Function	Sensorimotor function and comprehension	Processing and psychomotor speed	Sustained attention	Visual episodic memory	Attention and short term visual memory	Visual recognition memory	Verbal memory and new learning	Working memory and strategy	Visuospatial working memory	Multitasking	Planning	Response inhibition	Emotion recognition
Research Areas	CANTAB Tests	Motor Screening Task	Reaction Time	Rapid Visual Information Processing	Paired Associates Learning	Delayed Matching to Sample	Pattern Recognition Memory	Verbal Recognition Memory	Spatial Working Memory	Spatial Span	Multitasking Test	One Touch Stockings of Cambridge	Stop Signal Task	Emotion Recognition Task
CANTAB Connect	General cognitive function	●	●	●	●				●					
	Cognitive effects in healthy volunteers		●		●				●					
	Alzheimer's disease	●	●	●	●	●			●					
	Prodromal Alzheimer's disease	●	●	●	●	●	●		●					
	Attention deficit disorders (ADHD and ADD)			●					●				●	
	Autism spectrum disorder		●		●				●		●	●		●
	Depression and affective disorders			●		●			●			●		●
	Down's syndrome	●	●		●						●			
	Epilepsy	●	●	●	●				●			●		
	Huntington's disease	●	●		●					●		●		
	Multiple Sclerosis	●	●	●	●				●					
	Neuromuscular diseases	●	●	●	●				●					
	Obsessive compulsive disorder			●	●				●				●	
	Parkinson's disease	●	●		●		●		●			●		
	Schizophrenia		●	●	●			●	●		●	●		●
	Stroke and Cerebrovascular disease	●	●		●				●					
	Traumatic Brain Injury		●		●				●		●	●		

CANTAB Tests can be used to measure brain function in all areas of research and are sensitive across all disease applications to measure the effect of treatments and interventions.

CAMBRIDGE
COGNITION

The Cognitive Test Selector provides an overview of our recommended CANTAB Tests panels for different research applications, and is designed to enable you to select the most appropriate cognitive tests. CANTAB is the world's most validated and comprehensive computerised cognitive assessment system. The language-independent, sensitive touchscreen tests have been helping researchers to collect high-quality data for 30 years.

Key References

Mild Cognitive Impairment (MCI) Due To Alzheimer's Disease and Alzheimer's Disease
Égerházi, A., Berecz, R., Bartók, E., & Degrell, I. (2007). Automated Neuropsychological Test Battery (CANTAB) in mild cognitive impairment and in Alzheimer's disease. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 31(3), 746-751. Saunders, N.L., & Summers, M.J. (2011). Longitudinal deficits to attention, executive, and working memory in subtypes of mild cognitive impairment. Neuropsychology, 25(2), 237.

Attention Deficit Hyperactivity Disorder
Chamberlain, S.R., et al. (2011). Translational approaches to frontostriatal dysfunction in attention-deficit/hyperactivity disorder using a computerized neuropsychological battery. Biological psychiatry, 69(12), 1192-1203. Gau, S.F., & Huang, W.L. (2014). Rapid visual information processing as a cognitive endophenotype of attention deficit hyperactivity disorder. Psychological medicine, 44(02), 435-446.

Depression
Egerhazi, A., et al, (2013). Automated neuropsychological test battery in depression–preliminary data. Rock, P.L., Roiser, J.P., Riedel, W.J. & Blackwell, A.D., 2013. Cognitive impairment in depression: a systematic review and meta-analysis. Psychological Medicine.

Schizophrenia
Bartók, E., Berecz, R., Glaub, T., & Degrell, I. (2005). Cognitive functions in prepsychotic patients. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 29(4), 621-625. Scoriels, L., Barnett J., Murray, G.K., Cherukuru, S., Fielding, M., Cheng, F., Lennox, B.R., Sahakian, B.J., & Jones, P.B., (2011). Effects of Modafinil on Emotional Processing in First Episode Psychosis, Biological Psychiatry, 69, 457-464.

Neuromuscular Disease / Multiple Sclerosis
Foong, J., et al. (1997). Executive function in multiple sclerosis. The role of frontal lobe pathology. Brain, 120(1), 15-26. Roque, D.T., Teixeira, R.A.A., Zachi, E.C., & Ventura, D.F. (2011). The use of the Cambridge Neuropsychological Test Automated Battery (CANTAB) in neuropsychological assessment: application in Brazilian research with control children and adults with neurological disorders. Psychology & Neuroscience, 4(2), 255-265.

Epilepsy
Palade, S., & Benga, I. (2007). Neuropsychological impairments on the CANTAB Tests battery: case reports of children with frontal and temporal lobe epilepsy. Cognition, Brain, Behavior, 11(3), 539-552. Witt, J-A., Alpherts, W., & Helmstaedter, C. (2013) Computerized neuropsychological testing in epilepsy: Overview of available tools. Seizure, 22, 416-423.

Stroke and Cerebrovascular disease
Jaillard, A., et al. (2009). Hidden Dysfunctioning in Subacute Stroke. Stroke., 40, 2473-2479. Swainson, R., & Robbins, T.W. (2001). Rule-abstraction deficits following a basal ganglia lesion. Neurocase, 7, 433-444.

Parkinson's Disease
Lange, K.W., et al. (1992). L-dopa withdrawal in Parkinson's disease selectively impairs cognitive performance in tests sensitive to frontal lobe dysfunction. Psychopharmacology, 107(2-3), 394-404. Riekkinen, M., et al. (1998). Reduction of noradrenaline impairs attention and dopamine depletion slows responses in Parkinson's disease. European Journal of Neuroscience, 10, 1449-1435.

Traumatic Brain Injury
Salmond, C.H., et al. (2005). Cognitive sequelae of head injury: involvement of basal forebrain and associated structures. Brain, 128(1), 189-200. Sterr, A., Herron, K. A., Hayward, C., & Montaldi, D. (2006). Are mild head injuries as mild as we think? Neurobehavioral concomitants of chronic post-concussion syndrome. BMC neurology, 6(1), 7.

Autism
Hughes, C., Russell, J. & Robbins,T.W. (1994). 'Evidence for Executive Dysfunction in Autism', Neuropsychologia 32: 477–92. Kercood, S., Grskovic, J.A., Banda, D., & Begeske, J. (2014). Working memory and autism: A review of literature. Research is Autism Spectrum Disorders, 8, 1316-1332.

Huntington's Disease
Lange K.W., et al. (1995). Comparison of executive and visuospatial memory function in Huntington's disease and dementia of Alzheimer type matched for degree of dementia, Journal of Neurology, Neurosurgery & Psychiatry, 58, 598-606. Lawrence, A.D., et al. (1998a) Evidence for specific cognitive deficits in preclinical Huntington's disease. Brain 121, 1329-1341

Down's Syndrome
Edgin, J.O., et al. (2010). Development and validation of the Arizona Cognitive Test Battery for Down syndrome. Journal of Neurodevelopmental Disorders, DOI 10.1007/s11689-010-9054-3. Visu-Petra, L., Benga, O., Tincas, I., & Miclea, M. (2007) Visual-spatial processing in children and adolescents with Down's syndrome: a computerized assessment of memory skills, Journal of Intellectual Disability Research, 51(12), 942-952

Obsessive Compulsive Disorder
Abramovitch, A., Abramowitz, J. S., & Mittelman, A. (2013). The neuropsychology of adult obsessive-compulsive disorder: A meta-analysis. Clinical Psychology Review, 33, 1163-1171. Bersani, G., et al. Olfactory identification deficits and associated response inhibition in obsessive-compulsive disorder: On the scent of the orbitofronto–striatal model. 210(1), 208-214.

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