

Neuropsychological Testing

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When Is Neuropsychological Testing Used?

Frequently a physician or other professional will refer a patient for a neuropsychological evaluation after a period of time when body functions have begun to change, after a person has gone through a medical or physical trauma of some sort, or because of a difficult to diagnose learning, emotional, or behavior problem.

What Is Involved in Neuropsychological Testing?

A complete neuropsychological evaluation includes motor, sensory, intellectual, attention/concentration, learning, memory, and personality/emotional testing. Neuropsychological evaluations are conducted employing interviews, test batteries, and treatment/rehabilitation planning. Spouses, families, or significant others are frequently involved both in the evaluation and the treatment processes.

What Questions are Asked?

Aptitude/Intellect: What is the highest level of cognitive or intellectual achievement of which a person is capable? This might also be referred to as the person's innate brain capacity. These skills might represent the level of cognitive functioning which the person could achieve in the ideal environment, or in the setting which best brings out the skills with which the person was born. This portion of the test battery measures those skills which are likely to change less with time or with a modification in environment.

Academic Skills: What is the person's actual level of daily performance in practical problem solving and communication skills such as reading speed, reading accuracy, reading comprehension, writing ability, and mathematical computations? Are there signs of Learning Disability?

Learning and Memory Ability (Information Processing): How much new information, to which the person has not been previously exposed, can the person absorb and express? This aspect of a person's cognitive functioning is assessed through the visual/spatial as well as through the verbal/auditory modes. This portion of the test battery assesses a person's mode of learning. What is the person's learning style? Does the person learn in discreet steps or details, or through the big picture? The test battery can uncover whether a person's learning and

memory problems are the result of underlying disorders such as Learning Disability. This type of testing could also identify the early stages of a dementia such as Alzheimer's.

Attention/Concentration: How accurately can a person attend for long periods of time to information being presented through the visual or the auditory modes? Is the person distractible by external or internal stimuli? Testing related to attention/concentration also uncovers whether a person's difficulty in this area might be related to a medical condition such as Attention Deficit Disorder (ADD or ADHD).

Executive Skills: What is the person's level of skill in more complex cognitive functioning such as abstraction, generalization, benefiting by feedback from the environment, mental flexibility, multitasking, planning ahead, simple and complex problem solving, and persevering with a task until it is finished?

Personality/Emotional Functioning: What is the person's level of coping skills, self-esteem, social skills, mood and affect level, and capacity for behavior control? Are there any underlying personality and emotional difficulties which require treatment?

Career Potential: For what do the person's vocational interests and skills best suit them? Given the person's level of cognitive ability and past experiences, combined with their current interests, what are the general and specific vocational fields in which they would be most likely to succeed and gain satisfaction?

Sensory, Motor, and Sensory-Motor Skills: Difficulties coordinating vision, hearing, tactile, as well as the general body senses, with one's motor activities might require specific examination. Such an evaluation could help detect Sensory Integration Disorder in children, or fine and gross motor difficulties at any age.

Rule Out Organic Dysfunction: In cases where a person may have had an illness or injury which affects the brain, neuropsychological testing measures the extent to which the brain has been affected by this difficulty. Therefore, neuropsychological testing assesses a person's current brain-related strengths and weaknesses. Identifying the effects of brain damage is often required in support of medical treatments and legal cases.