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## **FREQUENTLY ASKED QUESTIONS ABOUT NEUROPSYCHOLOGICAL EVALUATION**

After an injury or an illness affecting the brain, individuals are commonly referred for neuropsychological evaluation. Most people know little about the evaluation process. Many are not sure what they will be asked to do, how they should prepare, or who will do the evaluation. Some common questions regarding the evaluation are addressed below.

### ***What is Neuropsychological Evaluation?***

A neuropsychological evaluation is a comprehensive assessment of cognitive, emotional, and behavioral functions using standardized tests and procedures. A neuropsychological evaluation usually involves a review of your medical and other records, an interview with you, and often, another person who knows you well, and administration of tests that measure your cognitive abilities and mood. The standardized tests and procedures assess various thinking abilities and skills, including, but not limited to:

- Attention
- Working Memory
- Memory and Learning
- Processing Speed
- Executive Functions:
  - Problem Solving and Conceptualization
  - Planning and Organization
- Language Abilities
- Visual Spatial Abilities
- Fine Motor Skills
- General Intelligence
- Academic Achievement
- Emotions/Behaviors/Personality
- Social Skills

### ***When is Neuropsychological Evaluation Needed?***

A neuropsychological evaluation is recommended for any case in which brain dysfunction due to injuries or diseases underlies problems in thinking abilities, emotional regulation and behavior. Neuropsychological assessment is a standard component of rehabilitation for brain related disorders. The results of the neuropsychological assessment are used to serve as a baseline for charting recovery or decline in cognitive, emotional, and behavioral functioning and serve as a primary means for developing treatment interventions and plans. Very often the results assist the patient, family, physicians and rehabilitation professionals in developing realistic expectations for the patient's independence and functioning.

The neuropsychological evaluation can be used to answer questions like:

- When can I go back to work?
- Can I start driving again?
- Can I live by myself or do I need to live with my parents?
- What kind of accommodations do I need for school?
- Am I depressed or am I just tired?
- Are my memory problems a part of normal aging?

### ***Who may benefit from Neuropsychological Assessment and/or Neuropsychological Rehabilitation?***

Individuals with a variety of brain related disorders and illnesses may benefit. Typical referrals include patients with:

- Traumatic brain injury
- Strokes
- Developmental learning disabilities
- Dementing conditions (e.g., Alzheimer's Disease)
- Attention deficit disorders
- Psychiatric or neuropsychiatric disorders
- Seizure disorders
- Medical illness or treatments
- Chronic pain
- Neurotoxicity (toxic encephalopathy)

### ***How is Neuropsychological Assessment different from Psychological Assessment?***

The Neuropsychological assessment involves a much more extensive assessment of thinking abilities, such as memory and attention, as well as emotional and behavioral assessment. A Psychological evaluation primarily involves assessment of emotional and behavioral (i.e. personality) functioning. The Neuropsychological assessment includes numerous cognitive tests sensitive to brain dysfunction.

### ***How Long Will The Testing Process Take?***

The length of a typical evaluation is from 4 to 8 hours, usually completed in one day, with a one-hour lunch break. Sometimes, the evaluation may be divided up over two or more days for patients who have limited endurance or for children. The evaluation starts with a detailed interview of the patient or caregiver (or both) regarding their complaints and history, lasting about 1 to 1 ½ hours. In the remaining time, the individual will be asked to perform various verbal, non-verbal, paper-pencil, and/or computer tasks that will test the limits of his or her ability. Often, spouses, parents, teachers, or other informants are also asked to complete questionnaires regarding the patients functioning.

Unlike school, there is no "pass" or "fail". There is no way to study for a neuropsychological evaluation. Instead, results are compared to others that are similar in age, education, sex and background. Even though it can be mentally challenging, most patients find the process intellectually stimulating and interesting.

### ***Are All Neuropsychological Evaluations the Same?***

No. A neuropsychological evaluation is not a fixed series of tests which anyone can give. Specialized training allows the Neuropsychologist to select, administer, and interpret the particular tests and procedures which will yield the most comprehensive understanding of an individual's strengths and weaknesses. Each neuropsychological examination is tailored to the needs of the individual client. The neuropsychological testing typically takes 4-8 hours to complete depending on the complexity of the situation.

### ***How Are The Test Results Used?***

That depends on the reason for the evaluation. Neuropsychological evaluations may:

- Confirm or clarify a diagnosis.
- Provide a profile of strengths and weaknesses to guide rehabilitation, educational, vocational, or other services.
- Document changes in functioning since prior examinations, including effects of treatment.
- Clarify what compensatory strategies would help.
- Result in referrals to other specialists, such as educational therapists, cognitive rehabilitation professionals, neurologists, psychiatrists, psychologists, social workers, nurses, special education teachers, or vocational counselors

### ***How is a Neuropsychologist different from a Psychologist or Psychiatrist?***

A Clinical Neuropsychologist is a licensed psychologist trained in the science of brain-behavior relationships. Neuropsychology is a specialization within the more general field of Clinical Psychology. The doctoral training and degree are typically in Clinical Psychology but the Clinical Neuropsychologist must have also completed a two year post doctoral residency, or equivalent, in Neuropsychology. Board certification is not required but is further evidence of competency and qualifications to practice Clinical Neuropsychology.

Psychiatrists are trained as medical doctors and then specialize in Psychiatry during their residency. Psychologists receive their training in the science of human behavior and receive a Doctor of Philosophy degree (Ph.D.). Psychologists are not medical doctors and cannot prescribe medications.

### ***Do Neuropsychologists Also Provide Treatment?***

Only some Neuropsychologists provide treatment. Typically, this is called Neuropsychological Rehabilitation and consists of education, psychotherapy and monitoring of neurobehavioral changes in order to improve the individual's learning and adaptation to disability. In addition, behavioral management interventions are often coordinated within the rehabilitation treatment team. The goals of Neuropsychological rehabilitation are to facilitate the patient's highest level of independent

functioning in the least restrictive setting and to facilitate successful work and community re-entry.

### ***How Does Neuropsychological Assessment and Rehabilitation Help?***

The neuropsychological assessment serves as a basis for understanding the person's thinking, emotional and behavioral functioning. The assessment can assist with diagnosis and serves as the basis for measuring changes, planning rehabilitation, and making recommendations for treatment and environmental modifications in order to enhance the patient's functioning and successful adaptation to disability or illness. The neuropsychological rehabilitation therapy assists the individual's ongoing adjustment to disability or illness in coordination with other rehabilitation therapists in order to facilitate the patient's successful integration into home, community and work settings.

### **Useful Internet References:**

Brain Injury Information and resources for patients and families (in English and Spanish):

Brain Injury Association USA [www.biausa.org](http://www.biausa.org)

Neuroanatomy information:

Whole Brain Atlas [www.med.harvard.edu/AANLIB](http://www.med.harvard.edu/AANLIB)