



---

# NATIONAL ACADEMY OF NEUROPSYCHOLOGY

---

## A PHYSICIAN'S GUIDE TO PEDIATRIC NEUROPSYCHOLOGICAL ASSESSMENT

### **What is neuropsychological assessment?**

Neuropsychological assessment is an approach to testing based on an appreciation of functional neuroanatomy and normal brain development. Neuropsychological evaluation defines how a child is functioning in comparison to expectations for that child's age level. The neuropsychologist is interested in how a child obtains a specific test score as well as in the pattern of test scores. Skills are broken down into component parts, attempting to define a pattern of strengths and weaknesses. The pattern, interpreted in the context of neuroanatomy and cognitive developmental stage, is then used to define an intervention plan.

### **When should you consider a neuropsychological assessment?**

Neuropsychological assessment can help when learning, attention, or behavior problems:

- Present in the context of a history of known or suspected brain insult.

- Present in the context of a history of genetic disorders or neurodevelopmental disorders that may impact on brain development.

- Present in the context of medical problems such as diabetes, seizures, chronic heart or respiratory problems, and chemotherapy/radiotherapy for malignancies, that may impact on brain development.

- Present in the context of exposure to neurotoxins such as lead, street drugs, inhalants or prenatal exposure to street drugs or alcohol.

- Fail to respond to what appear to be appropriate interventions.

- Represent a gradual or sudden unexplained change in the child's usual functioning

Neuropsychological assessment is appropriate to:

- Assist in establishment of a diagnosis

- Establish a performance baseline for use in documenting the functional effects of a medical interventions such as introduction of medications, changes in medications, neurosurgical procedures or organ transplantation.

- Help parents or teachers understand a child's cognitive strengths and weaknesses

### **How will neuropsychological assessment help my patient management?**

The neuropsychological assessment and report will provide you with:

- A description of the child's pattern of performance relative to his/her peers, identifying cognitive strengths and weaknesses

- Suggested interventions for remediation of weaknesses or to compensate for weakness

A means of assessing the functional effects of your medical treatment

A way to help parents understand their child's developmental pattern so that parents can set appropriate expectations for their child.

A way to help parents understand what they need to do to help maximize their child's development.

A more efficient way to provide your service to the child and family. By helping the parent to understand the etiology, prognosis, and treatment for their child's problems, parents will be less likely to repeatedly contact your office looking for a medical treatment or change in medication treatment to "fix" a developmental problem.

### **How do you refer a patient for neuropsychological assessment?**

Provide a referral question. What do you want to learn from this assessment?

Provide relevant medical records. The neuropsychologist needs to know about the child's medical history including information about birth, early development, recurring or chronic medical problems, and medication being given to treat the child. Selected chart notes typically will provide this information or you can summarize the history in a brief referral letter.

Inform parents that they will need to provide the neuropsychologist with copies on any previous assessments conducted with the child. If the child is receiving special education services, the neuropsychologist will need a copy of the child's current Individual Education Plan (IEP), and of any testing done by the school as a basis for this plan.

### **Will the neuropsychological assessment be covered by insurance?**

Some insurance plans will require a letter from you indicating the medical necessity of the assessment. For example, assessments are typically considered to be a medical necessity when conducted to: assist in differential diagnosis; assist in determining appropriate medication or titration of medication; assist in documentation of medication effects and/or side effects; and assist in deciding between behavioral and psychopharmacological interventions.

Assessment related to a medical condition or to help establish a diagnosis as the basis for medical treatment is usually covered.

Most insurance plans will deny coverage for assessment used to establish an educational diagnosis (e.g., learning disability). Medical insurance carriers view this as the responsibility of the patient's school. However, when learning problems emerge in the context of a neurodevelopmental disorder, traumatic brain injury, or chronic medical condition, the assessment of psychoeducational functioning in the context of a complete neuropsychological evaluation may be reimbursed.

### **What if you have questions about the appropriateness of assessment for a specific patient?**

Most neuropsychologists would be happy to discuss your patient with you.