# MEDICAL POLICY

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| **Medical Policy Title** | **Neuropsychological Testing** |
| **Policy Number** | **2.01.50** |
| **Current Effective Date** | **January 22, 2026** |
| **Next Review Date** | **January 2027** |

Our medical policies are guides to evaluate technologies or services for medical necessity. Criteria are established through the assessment of evidence based, peer-reviewed scientific literature, and national professional guidelines. Federal and state law(s), regulatory mandates and the member's subscriber contract language are considered first in the determination of a covered service.
(Link to Product Disclaimer)

## POLICY STATEMENT(S)

I. Neuropsychological testing (NPT) is considered **medically appropriate** for the assessment of cognitive impairment due to a suspected medical or psychiatric condition(s) when **ALL** of the following criteria are met:

A. Testing is supervised and interpreted by qualified health professional (e.g., licensed psychologist, board certified in neuropsychology, neurologist, or psychiatrist with specialized training and expertise in the types of tests/assessment being requested);

B. When a comprehensive evaluation has been insufficient to establish or inform a diagnosis and additional testing is necessary; (See Policy Guidelines)

C. When testing is needed for the assessment of **ONE or more** of the following:

1. There has been a significant mental status change, behavior change, cognitive function change, memory loss or organic brain dysfunction, resulting from illness or injury;

2. To establish a baseline for **either** of the following:

a. prior to brain surgery (e.g., epilepsy surgery, tumor resection, deep brain stimulation); **or**

b. for individuals under the age of 26 who have been diagnosed with a pediatric cancer or brain tumor that affects, or whose treatment may affect, brain development or function;

3. When a child presents with significant failure to progress cognitively or behaviorally at an expected neurodevelopmental pace; **or**

4. When there is a lack of response to ongoing treatment and a licensed behavioral health provider has determined that NPT is needed for a definitive diagnosis;

D. Testing results are expected to provide information that will be used to effectively guide treatment or rehabilitation planning; and

E. When there is clinical evidence or suspicion of **ONE** of the following clinical indications:

1. Acquired immunodeficiency syndrome (AIDS) encephalopathy;

2. Brain tumor;
3. Central nervous system (CNS) infection (e.g., herpes encephalitis, human immunodeficiency virus (HIV) infection);
4. Cerebral anoxic or hypoxic episode;
5. Cerebrovascular accident (stroke);
6. Concussion: when the functional impairment has not improved after 3-6 months of standard care;
7. Dementia;
8. Demyelinating disorders (e.g., multiple sclerosis);
9. Epilepsy or seizure disorder;
10. Extrapyramidal disease (e.g., Parkinson's, Huntington's disease);
11. Metabolic encephalopathy;
12. Metabolic insult to the brain;
13. Mild cognitive impairment (MCI), when the functional impairment has not improved after 3-6 months of standard care;
14. Neurodevelopmental condition (e.g., attention deficit/hyperactivity disorder, autism spectrum disorder, dyslexia, fetal alcohol syndrome, intellectual disability, Tourette syndrome);
15. Neurotoxin exposure (e.g., lead poisoning, cranial irradiation, chemotherapeutic agents);
16. Post concussion syndrome: when the functional impairment has not improved after 3-6 months of standard care;
17. Post-operative assessment of cognitive functioning following an appropriate internal (3-6 months) to allow for healing and ruling out acute delirium;
18. Psychiatric disorder with overlapping neurological features where an accurate diagnosis is essential for treatment planning;
19. Traumatic brain injury, mild, when functional impairment has not improved after 3-6 months of standard care;
20. Traumatic brain injury, moderate or severe.

II. NPT is considered **not medically necessary** for the following indications:

A. When a comprehensive clinical evaluation has not yet been performed;

B. As a screening tool for individuals who are asymptomatic, with an absence of a significant decline in cognitive or behavioral functioning, including assessment of individuals at risk for sports-related concussion or brain injuries;

C. Repeat testing within 2 years, unless the original diagnosis is brought into question or there

is an unexpected significant change in cognitive or behavioral functioning that requires objective confirmation to guide treatment and management;

D. When the requested time for test administration and scoring exceeds the administration time established by the test's publishers, plus appropriate time for interpretation, unless there is documented evidence of an extenuating circumstance requiring additional time;

E. When an individual is currently under the influence of substances (prescription or illicit) or within 14 days post-detoxification, and the effects of these substance have not been ruled out as potentially impacting tests results.

III. Neuropsychological testing is considered **investigational** for the following:

A. Computerized NPT (e.g., CognICA) for any indication that does not require a physician, psychologist, or licensed mental health professional to provide interpretation and preparation of a report;

B. For the diagnosis of chronic traumatic encephalopathy (CTE).

## RELATED POLICIES

Corporate Medical Policy

3.01.02 Psychological Testing

11.01.03 Experimental or Investigational Services

## POLICY GUIDELINE(S)

I. Neuropsychological testing should be preceded by adequate mental status examination, review of the individual's pertinent medical and psychosocial history, and appropriate medical or neurological consultations (e.g., primary care, geriatrician, neurologist). Comprehensive evaluation documentation to support the need for neuropsychological testing includes, but not limited to:

A. Referral question and diagnosis;

B. Proposed battery of tests and the estimated testing time;

C. Details of how the test results will inform or influence the patient's medical or psychological treatment plan;

D. Interpretation of preliminary assessments and other collateral clinical information (e.g., neurological and mental status exam, laboratory or neuroimaging results patient interviews, child/parent interviews, behavioral observations, school psychologist assessment or Individual Education Plan (IEP), Woodcock Johnson [WJ3], Conners Rating Scales, Mini-Mental State Examination [MMSE], Montreal Cognitive Assessment [MoCA]).

II. A complete neuropsychological evaluation typically requires between two (2) and eight (8) hours for test battery selection, administration, scoring, interpretation, and integration of clinical data (APA 2024). Requests for more than eight (8) hours of testing must include supporting

documentation and clinical justification for extended testing time (e.g., complex diagnostic needs, multiple domains requiring assessment, or patient-specific factors):

A. If the testing is done over several days, the total time for the evaluation should be reported at the completion of the entire episode of the evaluation. The single bill should list both base and add-on codes with the different dates of service linked to the entire episode of evaluation (APA 2024).

## DESCRIPTION

Neuropsychological testing (NPT) uses standardized methods to objectively measure behavioral and cognitive functioning, comparing the patient's results to normative values. NPT is intended to describe and diagnose the neurocognitive effects of medical disorders that impact, directly or indirectly, the functional integrity of the brain when other diagnostic methods have been insufficient. The neuropsychological evaluation begins with integrating patient information from multiple sources including behavioral observations, clinical interviews (e.g., patient, family, teacher), medical history, screening tools (e.g., Vanderbilt ADHD Rating Scales, M-CHAT-R/F), and diagnostic assessments (e.g., Autism Diagnostic Observation Schedule [ADOS-2] and Conners Rating Scales).

To inform remaining diagnostic conclusions, guide treatment planning, and contribute to medical decision-making, clinicians often use a flexible test battery approach to select specific tests to assess domains such as memory, attention, executive functioning, language, visuospatial skills, and sensorimotor abilities. NPT is conducted by licensed psychologists or qualified health professionals (QHPs), with psychometrists or technicians assisting under appropriate supervision.

The neurobehavioral status examination is a related clinical assessment that focuses on cognitive and behavioral functioning for conditions such as mild cognitive impairment, dementia, traumatic brain injury and stroke. Along with the initial integration of patient information (e.g., interviews and review of history), the results of brief cognitive screening measures (e.g., Montreal Cognitive Assessment [MoCA], Patient Health Questionnaire-9 [PHQ-9]) are used to determine if a full NPT evaluation is needed to Evaluate domains such as language, memory, acquired knowledge, attention, planning and problem-solving, and visual-spatial abilities. When a neurobehavioral status exam precedes a neuropsychological evaluation, the clinical assessment would determine the type of tests and how those tests should be administered.

NPT differs from psychological testing in both scope and purpose. Psychological testing focuses on evaluating emotional, behavioral, and personality functioning, while NPT evaluates cognitive processes and brain–behavior relationships. Along with the patient's history, psychological testing is commonly used to diagnose psychiatric and developmental disorders such as depression, attention deficit/hyperactivity disorder (ADHD), and autism spectrum disorder (ASD). It often includes personality and mood inventories, structured interviews, and self-report scales. Frequently used psychological tests include the Minnesota Multiphasic Personality Inventory (MMPI), Beck Depression Inventory, and the Wechsler Intelligence Scale for Children (WISC). Additionally, the Autism Diagnostic Observation Schedule (ADOS-2) is widely regarded as a gold standard observational tool for diagnosing ASD when used alongside of a comprehensive evaluation that includes development and medical history, interviews (e.g., Autism Diagnostic Interview-Revised [ADI-R], teachers,

parents) and assessment of language/communication domains. According to the APA (2024), ADOS-2 and ADI-R can be billed as a developmental test when interactive feedback is not included and then billed in conjunction with psychological testing evaluation services when feedback is performed.

Computerized neuropsychological assessment device (CNAD) is defined by the American Academy of Clinical Neuropsychology (AACN) and the National Academy of Neuropsychology as any instrument that uses a computer, digital tablet, handheld device, or other digital interface, rather than a human examiner, to administer, score, or interpret tests of brain function and related factors relevant to neurologic health and illness (AACN; Bauer 2012). CNADs differ from traditional examiner-administered tests in that examinees interact with a computer rather than a person, often without supervision, and may incorporate adaptive algorithms that adjust task difficulty based on performance. They can be marketed to non-experts, rely on proprietary scoring systems, and are influenced by technical factors such as hardware and software configurations, making them qualitatively and technically distinct from traditional tests. CNADs range from computerized versions of established tests (e.g., Wisconsin Card Sorting Test) to fully web-integrated platforms designed for general cognitive screening or specialized applications such as concussion evaluation and management.

Computer-based neuropsychological screening tests utilizing artificial intelligence (AI) have been proposed to be digital markers of cognitive impairment. The Integrated Cognitive Assessment (CognICA) from Cognitivity Ltd, is a five-minute rapid visual categorization test that reports to measure cognitive dysfunction utilizing human's strong reaction to animal stimuli. The test presents 100 natural images of animals with various levels of difficulty at 100 milliseconds (ms) followed by 20ms of inter-stimulus interval, followed by a dynamic noisy mask (for 250ms), followed then by the participant's categorization of animal vs. non-animal. The test focuses on speed and accuracy of processing visual information, targeting cognitive domains that are affected in the initial stages of cognitive disorders such as dementia and multiple sclerosis. The test is designed to be self-administered, language independent with no learning effects, and does not require cumbersome equipment. The vendor offers a similar visual categorization test via mobile app, called OptiMind.

Computer-based neuropsychological assessment of a sports-related concussion involves an abbreviated test battery, lasting approximately 20-30 minutes. These types of tests are given prior to commencement of a sports season to obtain a baseline and then are repeated as needed after a concussion, to guide medical decisions about a player's return to active participation in the particular sport. They usually provide a measurement of attention, processing speed, and reaction time, and can be administered by a team coach, athletic trainer, or physician with minimal training. Several computer-based tests are available for cognitive assessment. These include but are not limited to: ImPACT (Immediate Post Concussion Assessment and Cognitive Testing), CogState, MicroCog, Automated Neuropsychological Assessment metrics (ANAM), CNS Vital Signs, CANTAB, Mindstreams, Cognivue, and HeadMinder.

Chronic traumatic encephalopathy (CTE) is a progressive degenerative disease found in people who have had a severe blow or repeated blows to the head. The disease was previously called dementia pugilistica (DP), or "punch-drunk," as it was initially found in those with a history of boxing. This trauma triggers progressive degeneration of the brain tissue, including the build-up of an abnormal

protein called tau. These changes in the brain can begin months, years, or even decades after the last brain trauma or end of active athletic involvement. The brain degeneration is associated with memory loss, confusion, impaired judgment, impulse control problems, aggression, depression, and, eventually, progressive dementia. Currently, CTE can only be definitively diagnosed by direct tissue examination, including full autopsies and immunohistochemical brain analyses.

## SUPPORTIVE LITERATURE

Attention Deficit Hyperactivity Disorder (ADHD)

In 2024, the Agency for Healthcare Research and Quality (AHRQ) published a systematic review and meta-analysis evaluating the diagnostic performance of tools used to identify ADHD in children and adolescents (Peterson 2024). The purpose was to assess the accuracy and reliability of various diagnostic methods, including parental ratings, teacher ratings, youth self-reports, clinician tools, neuropsychological tests, biospecimen, EEG, and neuroimaging. The review included 231 studies addressing diagnosis that met eligibility criteria. While multiple tools showed promising diagnostic performance, estimates varied considerably across studies and the overall strength of evidence was generally low. Rating scales for parent, teacher, or self-assessment demonstrated high internal consistency but poor to moderate reliability between raters, suggesting that obtaining ratings from multiple informants may be valuable to inform clinical judgment. The review concluded that a valid and reliable diagnosis of ADHD requires the judgment of an experienced clinician, supported by standardized rating scales and input from multiple informants across settings. Neuropsychological tests, including executive functioning measures such as the Continuous Performance Test, showed inconsistent performance and were often used in study-specific combinations, limiting comparability. In head-to-head comparisons, parent rating scales typically demonstrated better diagnostic accuracy than neuropsychological test measures. Neuropsychological tests do not yet have sufficient evidence to serve as standalone diagnostic tools.

Autism Spectrum Disorder

The Cochrane systematic review by Randall et al (2018) evaluated the diagnostic accuracy of commonly used tools for identifying autism spectrum disorder (ASD) in preschool-aged children, comparing them against multidisciplinary clinical judgment. The review analyzed 21 datasets from 13 studies involving over 2,900 children under six years of age. The reference, gold standard assessment for diagnosis involves multiple professionals and multiple assessment mechanisms. A variety of tests are used in both research and clinical settings for diagnosis of ASD. Among the tools assessed, the Autism Diagnostic Observation Schedule (ADOS) demonstrated the highest sensitivity (0.94) and acceptable specificity (0.80), making it the most effective at correctly identifying children with ASD. The Childhood Autism Rating Scale (CARS) showed a sensitivity of 0.80 and specificity of 0.88, while the Autism Diagnostic Interview-Revised (ADI-R) had lower sensitivity (0.52) but comparable specificity (0.84). The review found that combining ADOS and ADI-R did not improve diagnostic accuracy beyond ADOS alone. The authors emphasized that diagnostic tools should not be used in isolation; rather, they should be part of a comprehensive, multidisciplinary assessment. Overall, the findings support current clinical guidelines recommending the use of structured tools like ADOS within a broader diagnostic framework.

Alzheimer's Disease

The routine use of NPT to differentiate Alzheimer's disease from other neurocognitive disorders is usually not necessary, as more suitable approaches are available. However, NPT may be considered necessary for complicated cases, when the usual diagnostic techniques are not adequate to provide a diagnosis and the diagnosis will alter the course of treatment. There are cases of neurocognitive decline for which etiology may be unclear. At the current time there is no simple, reliable, accurate test to make the diagnosis of Alzheimer's disease or many other neurocognitive disorders. Diagnosis of these conditions should be based on several pieces of information, including basic laboratory testing, history-taking (including mental health and substance use issues), with input from collaborating others; neurologic and mental status examination; and imaging. Many practitioners utilize a brief screening tool like MMSE, MOCA, Mini-Cog, or CamCog to make an estimate of deficits. Some diagnoses are then confirmed by brain biopsy (e.g., CNS vasculitis). Conclusive diagnosis of Alzheimer's disease still is based on brain tissue, and NPT may not have the specificity needed to change patient management or improve health outcomes. Many diagnoses of Alzheimer's disease are made without NPT; however, if a provider has a highly unusual case (e.g., cognitive decline under age 55 years) and can document a rationale for how the testing will alter the treatment plan, this can be presented for review.

Mild Cognitive Impairment (MCI)

The use of stand-alone cognitive assessments for generalized screening, including those utilizing AI such as CognICA, do not require a physician, psychologist, or licensed mental health professional to provide interpretation and preparation of a report. There is a lack of evidence that screening for cognitive impairment or early diagnosis of cognitive impairment improves patient or clinical decision making. Furthermore, there is little evidence for any interventions that preserve or improve the functioning of patients with MCI and there are no identified studies directly addressing the adverse psychological effects of this screening or adverse effects from false-positive or false-negative testing.

HIV-Associated Neurocognitive Disorder

Prior to the advent of highly active antiretroviral therapy (HAART), dementia was a common source of morbidity and mortality in HIV infected patients. With HAART, a less severe dysfunction, mild cognitive motor disorder, has become more common than ADC. Early signs and symptoms are subtle and may be overlooked. Cognitive screening tests should be part of the routine care of HIV-infected patients. Changes in the management of the patient, based on the cognitive findings, center around use of different antiretroviral therapy, including HAART. Cognitive screening tools have been developed (e.g., MoCA, HDS, IHDS) that can assist in identifying those patients who are at higher risk; however, based on their sensitivity and specificity, traditional NPT still appears to be the gold standard and is required to provide a definitive diagnosis.

Chronic Traumatic Encephalopathy (CTE)

LoBue et al (2025) conducted a systematic review and meta-analysis to investigate the relationship between chronic traumatic encephalopathy (CTE) and cognitive impairment, including dementia-related diagnoses. A total of 36 studies comprising 563 unique CTE cases were included. Only 22 CTE cases (<5%) had objective neuropsychological data available from studies of acceptable

quality. Deficits in memory, language, and attention were the most prevalent cognitive features, but all cases had comorbid non-CTE neuropathologies that may have been associated with cognitive impairment. Diverse neuropsychological impairments were observed, resulting in no consistent cognitive pattern, even for high CTE severity. Dementia-related diagnoses were prevalent in the meta-analysis, yet not strongly related to non-CTE neuropathologies (p= 0.714), including Alzheimer-type neuropathology (p = 0.084). While the findings suggest that CTE may be associated with cognitive impairment, further investigation is needed because heterogeneity in study designs prohibits clear conclusions.

Computerized Testing

Wild et al (2008) conducted a systematic review of computerized cognitive testing, focusing on its ability to detect cognitive decline in the aging population. The heterogeneity across selected studies and test batteries made a meta-analysis impossible. The study included review of 11 test batteries that were either developed to screen for cognitive decline in the elderly or have been applied to that function. In slightly more than half the tests, normative data for elderly subjects were rated as less than adequate as a result of either small sample size or lack of data specific to older adults in a larger sample. Reliability data was typically presented in some form, although only three test batteries met the highest rating achieved by describing more than one type of reliability. Few of the batteries were fully self-administered; the tests ranged widely in the amount of interaction required of an examiner. One of the persistent issues was the general lack of adequately established psychometric standards. Other concerns include failure to demonstrate equivalence between the examinee's experience of computer use versus traditional test administration, which is of particular importance in the elderly population.

Nelson et al (2017) conducted a prospective study that evaluated the reliability and validity of three computerized neurocognitive assessment tests (CNT) for assessing mild traumatic brain injury (mTBI). Specific tests included the Automatic Neuropsychological Assessment Metrics (ANAM), Defense Automated Neurobehavioral Assessment (DANA), and Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT). Patients with mTBI (n=94) and matched trauma control (n=80) were recruited from a level I trauma emergency department to complete symptom and neurocognitive assessments within 72 hours of injury and at 15- and 45-days post-injury. Concussion symptoms were also assessed via phone at day 8 post-injury. CNTs did not differentiate between groups at any time point. In contrast, concussion symptom score differentiated mTBI versus control groups acutely, with this effect size diminished over time (72-hr and day 8, 15, and 45 Cohen's d = –.78, –.60, –.49, and –.35, respectively). The CNTs did not yield significant differences between patients with mTBI versus other injuries. Symptom scores better differentiated groups than CNTs, with effect sizes weaker than those reported in sport-related concussion studies. The authors concluded that symptom-based assessments may be more reliable than computerized neurocognitive tools for evaluating mTBI in acute care settings.

Wojcik et al (2019) conducted a systematic review of 120 peer-reviewed studies and identified 11 test batteries and 33 individual tests utilized in MS populations. CNADs such as the CogState Brief Battery, Cognitive Drug Research Battery, NeuroTrax, CNS Vital Signs, and computerized versions of the Symbol Digit Modalities Test demonstrated the strongest psychometric support, particularly for

measuring cognitive processing speed. While these tools show promise as screening instruments or supplements to conventional neuropsychological assessments, most CNADs do not yet exhibit sufficient reliability and validity to replace established clinician-administered batteries such as BICAMS, MACFIMS, or MS-COG. Further research is needed to confirm their sensitivity across cognitive domains and their applicability in real-world clinical settings. At present, CNADs may be considered for adjunctive use in MS cognitive evaluation, but they should not supplant comprehensive, standardized neuropsychological testing.

## PROFESSIONAL GUIDELINE(S)

Attention-Deficit/Hyperactive Disorder (ADHD)

Wolraich et al (2019) published the American Academy of Pediatrics (AAP) updated clinical practice guidelines for the diagnosis, evaluation, and treatment of ADHD in children and adolescents stating:

- There is evidence that appropriate diagnosis can be accomplished in the primary care setting for children and adolescents. The pediatrician or primary care provider should initiate an evaluation for ADHD for any child or adolescent age 4 years to the 18th birthday who presents with academic or behavioral problems and symptoms of inattention, hyperactivity, or impulsivity.
- To make a diagnosis of ADHD the provider should determine that DSM-5 criteria have been met and should rule out any alternative causes (Grade B: strong recommendation).
- Appropriate further assessment is indicated if an underlying etiology is suspected.

The 2019 National Institute for Health and Care Excellence (NICE 2019) guideline recommends that a diagnosis of ADHD should only be made by a specialist psychiatrist, pediatrician or other appropriately qualified healthcare professional with training and expertise in the diagnosis of ADHD, on the basis of a full clinical and psychosocial assessment that should include discussion about behavior and symptoms in the different domains and settings of the person's everyday life, a full developmental and psychiatric history, and observer reports and assessment of the person's mental state. Rating scales are valuable adjuncts, and observations (e.g., at school) are useful when there is doubt about symptoms.

Autism Spectrum Disorder (ASD)

In its 2014 Practice Parameter, the American Academy of Child and Adolescent Psychiatry (AACAP) recommends that when screening indicates significant ASD symptomatology, a thorough diagnostic evaluation should be performed to confirm the diagnosis (Volkmar 2014). A standard assessment should include interviews with the child and family, a thorough review of developmental and medical history, examination of past records, and collection of relevant historical information. These components should be evaluated in alignment with DSM-5 diagnostic criteria. Although a variety of instruments have been developed to assess ASD, their clinical utility varies, and some require specialized training for proper administration and interpretation. These tools are intended to support, not replace, the clinical judgment of experienced professionals. Psychological assessment is also recommended to identify individual strengths and weaknesses that can inform treatment planning. This includes evaluating cognitive abilities and adaptive functioning, which helps contextualize observed social-communication challenges within the child’s broader developmental profile. While

AACAP acknowledges neuropsychological associated features of ASD (e.g., deficits in executive functioning and weak central coherence); however, formal neuropsychological testing is not discussed within the Practice Parameter.

The American Academy of Pediatrics (AAP) reaffirmed its clinical report for identifying, evaluating, and managing children with autism spectrum disorder (Hyman 2020; reaffirmed 2025). The AAP recommends standardized autism-specific screening at 18 and 24 months of age during primary care visits, complementing general developmental screening. Screening results are not diagnostic but help identify children at risk who require further evaluation. Children with developmental delays, with or without an ASD diagnosis, should be referred to early intervention or school services, where cognitive and language testing may be completed. Structured observation of ASD symptoms during clinical evaluation informs application of DSM-5 criteria. General pediatricians and child psychologists familiar with DSM-5 can make an initial clinical diagnosis, supported by validated tools such as the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2) and the Childhood Autism Rating Scale, Second Edition (CARS-2). Co-occurring conditions (e.g., intellectual or learning disabilities, ADHD, anxiety, and speech or language disorders) may affect symptom presentation and functional impairment across development. Assessment of cognitive and language ability is an important component of the diagnostic evaluation, and in the United States, early intervention services and school systems will evaluate children in these domains to assess educational needs.

Dementia

In 2021, the American Psychological Association (APA) reaffirmed their 2011 guidelines for the evaluation of dementia and age-related cognitive changes. These guidelines emphasize that a diagnosis of dementia requires evidence of decline from a previously higher level of cognitive functioning. While objective testing provides valuable data for diagnostic purposes, the clinical interview remains a foundational component of a comprehensive assessment. When brief mental status evaluations yield inconclusive results, psychologists are may consider a referral for a neuropsychological evaluation. These evaluations integrate detailed clinical interviews with standardized testing across multiple cognitive domains (e.g., memory, attention, processing speed, language, visuospatial skills, motor functions, and executive functioning) to clarify the etiology of cognitive decline and identify cognitive strengths. Comprehensive neuropsychological assessments are particularly valuable for addressing complex diagnostic questions and informing treatment planning.

In 2025, the American Academy of Neurology (AAN) reaffirmed the 2010 practice guideline on evaluating and managing the driving risk in patients with dementia. While neuropsychological testing itself may better define dementia severity, there is insufficient evidence to support or refute the benefit of neuropsychological testing in evaluating driving risk in patients with dementia.

Concussion/Mild Traumatic Brain Injury

Halstead et al (2018) published the American Academy of Pediatrics (AAP) clinical report to guide clinicians in sport-related concussion (SRC) in children and adolescents with the following recommendations:

- Neurocognitive testing after an SRC is only one tool that may be used in assessing an athlete for

recovery and should not be used as a sole determining factor to determine when return to play is appropriate. Testing should be performed and conducted by providers who have been trained in the proper administration.

- Athletes with prolonged symptoms after an SRC should be evaluated for coexisting problems that may be contributing to the lack of symptom resolution and may benefit from referral to an appropriate health care provider.

Harmon et al (2019) published the American Medical Society's position statement on concussions in sport, which includes recommending a review of detailed history of concussion and screening for premorbid and comorbid conditions that may complicate concussion diagnosis. Baseline testing may be useful in some cases but is not necessary, required or an accepted standard of care for the appropriate management of sport-related concussion (SRC). Athletes and former athletes who present with neuropsychiatric symptoms and signs that have been ascribed to CTE should be evaluated for potentially treatable comorbid conditions that share symptoms and not be assumed to have CTE.

The Centers for Disease Control and Prevention (CDC) published guidelines in 2018 for the diagnosis and management of mild traumatic brain injury (TBI) among children (Lumba-Brown 2018). Recommendation 5B states; "Health care professional may use validated, age-appropriate computerized cognitive testing in the acute period of injury as a component of the diagnosis of mild TBI (moderate; level C)." Recommendation 19C states; "Health professionals may refer children with persisting problems related to cognitive function for a formal neuropsychological evaluation to assist in determining the etiology and recommending targeted treatment (high; level C)."

Fetal Alcohol Spectrum Disorders (FASD)

Hoyme et al (2016), in collaboration with the National Institute on Alcohol Abuse and Alcoholism, published consensus guidelines for diagnosing Fetal Alcohol Spectrum Disorders (FASD). They emphasize that assigning an FASD diagnosis is a complex process best accomplished through a structured, multidisciplinary team approach. Evaluation of individuals with prenatal alcohol exposure should include a medical assessment by a pediatrician or clinical geneticist/dysmorphologist experienced in human malformation syndromes and dysmorphology. In addition, exposed children should undergo expert psychological and neuropsychological testing, and a skilled interviewer should obtain a detailed history of maternal alcohol use during pregnancy. Because the primary effects of alcohol are on brain structure and function, a comprehensive neurodevelopmental assessment is essential. These assessments help identify deficits at least 1.5 standard deviations below the normative mean, providing objective criteria for diagnosis within a multidisciplinary framework.

Childhood Cancer and Neurotoxin Exposure

The Children's Oncology Group (COG) recommends NPT for initial (baseline) evaluation and periodic NPT as clinically indicated for specific therapeutic exposures, including brain tumor resection, CRT, intrathecal chemotherapy, and specific high dose chemotherapy agents given intravenously (Nathan 2007; Walsh 2016).

In 2023, COG released Version 6.0 of its Long-Term Follow-Up Guidelines for survivors of childhood,

adolescent, and young adult cancers. These guidelines recommend neuropsychological testing at baseline at entry into long-term follow-up, followed by periodic assessments as clinically indicated for patients demonstrating impaired educational or vocational progress.

According to the National Comprehensive Cancer Network (NCCN) survivorship guidelines (Version 2.2025), cognitive impairment is a common concern among cancer survivors and may be a consequence of the tumors themselves or of the direct effects of cancer-related treatment (e.g., chemotherapy, radiation therapy). Neuropsychological evaluation can be therapeutic and validating.

## REGULATORY STATUS

Pursuant to New York State law, effective November 1, 2012, every contract providing physician services, or providing medical, major medical, or similar comprehensive-type coverage must provide coverage for the screening, diagnosis, and treatment of autism spectrum disorders (ASDs) when prescribed or ordered by a licensed physician or a licensed psychologist for medically necessary services. Treatment includes services provided by a licensed or certified speech therapist, occupational therapist, physical therapist, and social worker when the policy generally provides such coverage. Therapeutic treatment must include care that is deemed habilitative or non-restorative. The law prohibits the imposition of limitations that are solely applied to the treatment of ASD. However, as long as the visit limit is not imposed solely on services required to treat an ASD, a visit limit continues to be permissible, as long as such visit limit also passes the testing requirements under the Mental Health Parity Addiction and Equity Act of 2008.

The Dyslexia Diagnosis Access Act (A.2898/S.5481) effective January 1, 2025, requires that health plans pay for neuropsychological exams for the purpose of diagnosing dyslexia and determining the psychological emotional and educational wellness of the individual tested. Every policy that provides coverage for physician services, medical, major medical or similar comprehensive-type coverage shall provide coverage for testing for suspected dyslexia in accordance with this mandate and shall not exclude coverage for the screening, diagnosis or treatment of medical conditions otherwise covered by the policy. The bill aims to increase access to effective diagnostic testing for dyslexia.

## CODE(S)

- Codes may not be covered under all circumstances.
- Code list may not be all inclusive (AMA and CMS code updates may occur more frequently than policy updates).
- (E/I)=Experimental/Investigational
- (NMN)=Not medically necessary/appropriate

### CPT Codes

| Code | Description |
|---|---|
| 90791 | Psychiatric diagnostic evaluation |
| 90792 | Psychiatric diagnostic evaluation with medical services |

| Code | Description |
|---|---|
| 96116 | Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, [e.g., acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities]), by physician or other qualified health care professional, both face-to-face time with the patient and time interpreting test results and preparing the report; first hour |
| 96121 | each additional hour (List separately in addition to code for primary procedure) |
| 96132 | Neuropsychological testing evaluation services by physician or other qualified health care professional, including integration of patient data, interpretation of standardized test results and clinical data, clinical decision making, treatment planning and report, and interactive feedback to the patient, family member(s) or caregiver(s), when performed; first hour |
| 96133 | each additional hour (List separately in addition to code for primary procedure) |
| 96136 | Psychological or neuropsychological test administration and scoring by physician or other qualified health professional, two or more tests, any method; first 30 minutes |
| 96137 | each additional 30 minutes (List separately in addition to code for primary procedure) |
| 96138 | Psychological or neuropsychological test administration and scoring by technician, two or more tests, any method; first 30 minutes |
| 96139 | each additional 30 minutes (List separately in addition to code for primary procedure) |
| 96146 | Psychological or neuropsychological test administration, with single automated, standardized instrument via electronic platform, with automated result only |



**HCPCS Codes**

| Code | Description |
|---|---|
| Not Applicable | |

**ICD10 Codes**

| Code | Description |
|---|---|
| Multiple Codes | |

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## SEARCH TERMS

Not Applicable

## CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

Neuropsychological testing is not addressed in a National Medicare coverage determination or policy. However, neuropsychological testing is addressed in the Chapter 15, Section 80.2 in the Medicare Benefit Policy Manual. Please refer to the following website for Medicare Members: https://www.cms.gov/medicare/prevention/prevntiongeninfo/downloads/bp102c15.pdf [accessed 2026 Jan 20].

LCD - Psychiatry and Psychology Services (L33632) [accessed 2026 Jan 20]

## PRODUCT DISCLAIMER

- Services are contract dependent; if a product does not cover a service, medical policy criteria do not apply.
- If a commercial product (including an Essential Plan or Child Health Plus product) covers a specific service, medical policy criteria apply to the benefit.
- If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit.
- If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.
- If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line.

## POLICY HISTORY/REVISION

**Committee Approval Dates**

10/18/01, 04/25/02, 03/27/03, 02/26/04, 04/28/05, 08/31/06, 06/28/07, 06/26/08, 10/28/09, 08/26/10, 08/25/11, 08/23/12, 08/22/13, 08/28/14, 12/10/15, 06/22/17, 12/13/18, 12/19/19, 12/10/20, 12/16/21, 01/19/23, 01/18/24, 01/23/25, 01/22/26

| Date | Summary of Changes |
|---|---|
| 01/22/26 | • Annual review, policy updated with reformatting and clarifying edits. Positive policy intent change to allow NPT assessment when there is a lack of response to ongoing treatment and for baseline evaluation related to pediatric cancer. |
| 01/23/25 | • Annual review, policy statements revised for clarity intent unchanged, supported literature and regulatory status updated to include mandate |

| | |
|---|---|
| | information for Dyslexia Diagnosis Access Act effective 01/01/25. |
| 01/01/25 | • Summary of changes tracking implemented. |
| 10/18/01 | • Original effective date |