Do You See the Early Signs?

World Leaders in Telehealth and In-Clinic Neurocognitive & Neurobehavioral Testing


A Broad-Spectrum Computerized Neurocognitive Testing Platform Coupled with 50+ Clinical and Quality Rating Instruments

www.CNSVS.com

●

888.750.6941

In-Clinic Testing

Telehealth "Remote" Testing

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With CNS Vital Signs Neurocognitive Testing Procedure!

Objective I Valid I Reliable I Efficient I Reimbursable I Secure

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& make your selection.

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Enhance Your Telehealth Encounters with CNS Vital Signs!
Does your Cognitive Testing Support Professional Guidelines?

CNS Vital Signs standardized neurocognitive testing is a non-invasive, reimbursable clinical procedure to efficiently and objectively assess a broad-spectrum of brain function domain performances under challenge (cognition stress test). Enabling the measuring of important clinical symptoms, behaviors, and comorbidities salient to the evaluation and ongoing management of many neurological, psychiatric and other conditions. Serial evaluation of neurocognition can help patients and caregivers navigate problems related to daily living, school or vocational work environment.

**DSM-5 Neurocognitive Disorder, Five Key Cognitive Domains Tested**

- Learning and Memory
- Complex Attention
- Recommended Neurocognitive Domains
- Language
- Perceptual-Motor Function

**Executive Function**

**Social Cognition**

**Recommended Neurocognitive Domains**

- Neurocognitive disorders - are characterized by decline from a previously attained level of cognitive functioning... Objective assessments are essential... The move to evaluate neurocognitive disorders as early as possible emerged from the recognition of a long predementia stage in neurodegenerative diseases, improvements in early detection, and the increasing emphasis on early intervention to prevent or postpone dementia...

**Evaluation criteria:** Evidence of modest cognitive decline from a previous level of performance (longitudinal) in one or more cognitive domains...***


---

**Collecting Required Elements for Procedure Code 99483**

1. Select Testing Method
   - In-Clinic Testing
   - Telehealth “Remote” Testing

2. Select Tests or Test Panel

3. Conduct Required Elements Testing

4. Easily Add Test Reports to EMR & Bill

   Use CNS VS Cognitive Care Plan Template

5. Create Care Plan and Provide Feedback

   - Rating Instruments
     - Neuropsychiatric
     - Daily Function
     - Sleep
     - Falls

Custom configure test panels (cognitive tests and rating instruments) to optimize your research, clinical, and quality care activities.

---

**Optimize Care and Add Anti-Fragile, Incremental Revenue...**

**Widely Reimbursed... Well Established Billing Codes**

**Clinician Testing**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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**Psych Evaluation**

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**Neuro Evaluation**

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</thead>
<tbody>
<tr>
<td>99483</td>
<td>In-Clinic &amp; Telehealth Codes</td>
<td>$283</td>
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</tbody>
</table>

**Cognitive Assessment & Care Planning**

- Neurobehavioral Status
  - 96116, 96121 | $97 |
  - In-Clinic & Telehealth Codes
- Developmental
  - 96112 | $132 |
  - In-Clinic & Telehealth Codes

For more information refer to the CNS Vital Signs ‘Reimbursement Guide’, schedule a **FREE TRAINING WEBINAR** at CNSVS.com or email support@cnsvs.com.

* $ Represents Estimated National Average Practice Reimbursement

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Does your Cognitive Testing Assess the DSM-5 Neurocognitive Disorder Recommended Brain Domains, help Collect MIPS Quality Measures and Required Reimbursement Elements?

---

www.CNSVS.com ● support@cnsvs.com ● 888.750.6941
The CNS Vital Signs results are presented in a **DOMAIN DASHBOARD** and **DETAILED TEST** report format immediately following the brief testing session.

Standardized evaluation of neurocognitive and behavioural issues provides a systematic and efficient method of collecting valid and reliable clinical measures currently recommended by most neuro-psych guidelines.

Altogether, CNS Vital Signs computerized testing can facilitate a more complete assessment and provide a basis for patient and family feedback. The colorful auto-scored reports are designed to present and share with patients, families, and caregivers.

### Additional Clinical and Practice Benefits
- **Millisecond Precision**
- **Hundreds of Peer-Reviewed Publications**
- **Embedded Test Validity Indicators**
- **Millions of Tests Given Worldwide Since 2006**
- **Over 50 Languages**
- **Unlimited Alternate Forms for Serial Testing**
- **No Ceiling Effect... Open Ended Performance to Identify Superior Subjects**
- **Modular... Easily Configured Custom Testing Panels and Platform**
- **Enhanced Auditability with Automated Systematic Documentation**
- **HIPAA Secure, Data back-up and Data export**
- **Broad Deployment... Solutions for small, medium and large practices, integrated delivery systems, high security environments such as FDA sponsored clinical research, Military, VA Hospitals, Academic Medical Centers, across thousands of clinician and research users worldwide**

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Test Evaluation Criteria: The CNS VS reports are logical and intuitive making the interpretation by a health professional relatively straightforward. CNS Vital Signs has taken a LIFESPAN approach collecting a large peer neurocognitive normative reference group from ages 8 to 90. The normative comparison helps clinicians grade the level of neurocognitive impairment and compare the evidence of cognitive decline from a previous level of performance which can help rule-in or rule-out certain clinical conditions, help determine the level of impairment or track disease progression or improvement. Clinical insight into the cognitive status of a patient can come from impairment in one or more cognitive domains. Like any laboratory test, an abnormal result should be the occasion for further evaluation.

Evaluate Validity: The Validity Indicator (VI) helps identify the possibility of an invalid test. Embedded measures helps evaluate whether the patient is manipulating testing performance for a secondary gain or they simply did not read the test instructions. Examples of secondary gain include: drug or disability seeking, academic accommodation, malingering, symptom feigning, etc.

Evaluate Severity: The scores help identify cognitive deficits and their level of impairment. Assess even slight cognitive impairment (millisecond precision) providing immediate clinical insight into a patient’s cognitive deficits and level of impairment. This gives patients, family members and caregivers knowledge of cognitive domains that underpin the ability to conduct activities of daily living.

Evaluate Pattern: Impairment pattern helps identify pathologies and possible comorbidities. The CNS VS cognitive pattern profiles (interpretation guide) may assist clinicians in the evaluation of neurological, psychiatric, and developmental disorders. CNS Vital Signs cognitive testing procedure provides valid and reliable clinical endpoints to help in the evaluation and management of patients.

Evaluate Longitudinally: Track disease progression, outcomes, or treatment effects. Establish a baseline and serially assess cognitive clinical endpoints to aid in the monitoring and management of many clinical conditions and treatments e.g., measure the response to disease and treatment like MS, AD/HD & stimulants, rehabilitation efforts, and used to measure clinical outcomes.

Testing performance should be reviewed with knowledge of a patient's history and physical or diagnostic interview, lab tests, etc. to understand the context of the possible cognitive deficits.

Examples of CNS VS use...

- Neurodegeneration (Neurocognitive Disorder, MCI, Multiple Sclerosis, Parkinson’s, Sleep, etc.)
- Neurotraumatic (mTBI, Concussion, TBI Rehabilitation)
- Neurodevelopmental (AD/HD, Asperger’s, etc.)
- Neuropsychiatric (ADD, SUD, Bipolar, Depression, PTSD, Schizophrenia, Anxiety, etc.)
- Other: HIV-HAND, Cancer Cognition, Chronic Pain Fibro-Fog, Encephalopathy, Metabolic / Diabetes, Cardiovascular, Prion or Lyme Disease, Human Performance, Neurotoxicity, Diet & Exercise, Medication Effects, etc.

Easy Graph Longitudinal Results

**Executive Function**

One Key Difference – Measuring Cognitive Speed... CNS Vital Signs is sensitive in detecting cognitive impairment ...uses computerized forms of traditional tests such as Symbol Digit Modalities and Stroop ...are easy to use, require significantly less time to administer, produce instant scoring and can incorporate alternate forms, necessary to minimize learning effect on follow-up. ...also, the capacity to accurately-automatically quantify “speed factor” via multiple parameters such as reaction time, psychomotor speed, and processing speed, increasing their sensitivity in detecting even subtle changes in information processing speed.” **

### 10 Normed Neurocognitive Tests... 50+ Rating Scales

**Fully Integrated System** available with VS4 Local Computer Software Testing and Cloud-Based Online Testing Options

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Approx. Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Memory (VBM)</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Visual Memory (VIM)</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Symbol Digit Coding (SDC)</td>
<td>4 minutes</td>
</tr>
<tr>
<td>Finger Tapping (FTT)</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Stroop Test (ST)</td>
<td>4 -5 minutes</td>
</tr>
<tr>
<td>Shifting Attention (SAT)</td>
<td>2.5 minutes</td>
</tr>
<tr>
<td>Continuous Performance (CPT)</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Perception of Emotions (POET)</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Non-Verbal Reasoning (NVRT)</td>
<td>3.5 minutes</td>
</tr>
<tr>
<td>4-Part Continuous Performance (FPCPT)</td>
<td>7 minutes</td>
</tr>
</tbody>
</table>

**Computerized versions of VENERABLE NEUROPSYCHOLOGICAL TESTS. Measures the SPEED and ACCURACY of a patient’s response. TOTAL TEST TIME depends on the number of tests and rating instruments selected. Modular testing panels can be custom configured according to clinical practice or research needs.**

CNS Vital Signs assessment platform includes 50+ medical and health rating instruments helping identify and systematically document **PATIENT** and **INFORMANT** ratings of symptoms, behaviors and comorbidities.

### Pediatric - Adolescent Instruments:

**Developmental - Mental Health**
- Pediatric Symptom Checklist (PSC-35, Youth and PSC-17)
- Vanderbilt ADHD Diagnostic Parent & Teacher Rating Scales
- Vanderbilt Assessment Follow-up Parent & Teacher Rating Scales
- PHQ-9 Depression & GAD-7 Anxiety
- DASS - Depression, Anxiety and Stress Scale 21 & 42 (14 years of age and up)
- Screen for Child Anxiety Related Disorders (SCARED) Child & Parent Version
- Social Anxiety Scale for Children and Adolescents (SASCA)

**Targeted Instruments**
- Child Obsessive-Compulsive Disorder Inventory (OCD-C)
- Childhood Cancer Survivor Study Neurocognitive Questionnaire (CCSS)
- Neurobehavioral Symptom Inventory (NSI)
- DSM-5 PTSD Checklist (PCL-5) & Stressor Specific (PCL-S)

**Substance Abuse - SBIRT**
- Drug Use Questionnaire (DAST)
- Alcohol Use Disorders Identification Test (AUDIT)

### Adult Instruments:

**Health Risk - Mental Health**
- Patient Health Questionnaire (PHQ-9)
- General Anxiety Disorder (GAD-7)
- DASS - Depression, Anxiety and Stress Scales 21 & 42
- Zung Self-Rating Depression & Anxiety Scales
- Stanford Geriatric Depression Scales (SGDS) 15 & 25

**Targeted Instruments**
- Quality of Life Medical Outcomes Survey (MOS) SF-36
- Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist
- DSM-5 PTSD Checklist (PCL-5), also the Civilian (PCL-C), Stressor Specific (PCL-S) and Military (PCL-M)
- Fall Risk Questionnaire (FRQ)
- Health Assessment Questionnaire (HAQ) Disability Scale
- Modified Fatigue Impact Scale (MFIS)
- Neurobehavioral Symptom Inventory (NSI)
- Dizziness Handicap Inventory (DHI)
- Head Injury Questionnaire (HIQ)
- Memory Questionnaire (MEMQ)
- Adult Obsessive-Compulsive Disorder Inventory (OCD-A)
- MHE Questionnaire
- Combat Exposure Scale (CES)
- Life Events Checklist (LEC)
- Deployment Risk and Resiliency Inventories
- Life Habits Checklist
- Medical Symptoms Questionnaire (Past 30 Days) and (Past 48 Hours)

**Sleep**
- Epworth Sleepiness Scale (ESS)
- Pittsburgh Sleep Quality Index (PSQI)
- Sedation Scale (SS)
- Alertness Rating Scale (ARS)

**Substance Abuse - SBIRT**
- Drug Use Questionnaire (DAST)
- Alcohol Use Disorders Identification Test (AUDIT)

**Pain**
- Numeric Pain Scale
- Pain Catastrophizing Scale (PCS)

---

Efficient testing for your patient needs and time constraints.

---

5
Joe, a 60-year-old male is presenting with memory and concentration concerns and was given CNS Vital Signs Clinical Battery and scored below average compared to his peers in 6 of 11 cognitive domains. His lowest scores were in domains sensitive to amnestic (memory related) MCI.

After considering the H&P, lab results, patient and informant memory questionnaire, sleep scales and the cognitive test results; Joe was referred for a sleep study. Later he was prescribed CPAP and appropriate therapy.

CNS Vital Signs allowed a fine characterization of Joe’s clinical course, including apparent variation due to compliance with therapy. Patient and wife were positively influenced by revelation of objective cognitive testing performance, which proved useful in demonstrating probable effects of compliance.

Case Examples: MCI, DSM-5 Neurocognitive Disorder, Early Intervention

Amnestic MCI Baseline: 60-Year-Old Male Initial MMSE 25*

<table>
<thead>
<tr>
<th>Domain Scores</th>
<th>Subtest Score</th>
<th>Standard Score</th>
<th>Percentile</th>
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<tbody>
<tr>
<td>CNS Vital Signs</td>
<td>100</td>
<td>90</td>
<td>1</td>
</tr>
<tr>
<td>Comprehension</td>
<td>70</td>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>Verbal Memory</td>
<td>30</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Visual Memory</td>
<td>30</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Psychomotor Speed</td>
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<td>110</td>
<td>80</td>
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<tr>
<td>Reaction Time</td>
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<td>90</td>
<td>47</td>
</tr>
<tr>
<td>Complex Attention</td>
<td>110</td>
<td>105</td>
<td>1</td>
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<tr>
<td>Cognitive Flexibility</td>
<td>37</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Processing Speed</td>
<td>47</td>
<td>100</td>
<td>63</td>
</tr>
<tr>
<td>Executive Functions</td>
<td>30</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Simple Visual Attention</td>
<td>43</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>Motor Speed</td>
<td>120</td>
<td>121</td>
<td>92</td>
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</tbody>
</table>

NCI - Neurocognition Index

CNS VS Correlation to Alzheimer’s ApoE Polymorphisms

Correlation to Biological Markers


...Study included 107 postmenopausal women between the ages of 52 and 65 (mean 56.6 ± 3.5)

...Subjects were qualified as “normal” with MOCA scores between 26 and 30

...Findings revealed ApoE polymorphisms correlated to levels of cognitive function where as expected ε3/ε4, or ε4/ε4 scored poorly while ε2/ε3 groups scored much better.

Average Standard Scores for cognitive functions in particular groups of ApoE gene polymorphisms.

"...increasing emphasis on early intervention to prevent or postpone dementia..." makes CNS Vital Signs a VALUABLE TOOL for your PRACTICE!
Study included 360 children and adolescents (277 boys, 83 girls) between 7 and 15 years of age who had been diagnosed with ADHD at the Department of Child and Adolescent Psychiatry using K-SADS-PL and DSM-IV...Subjects were grouped according to ADHD subtypes as PI (n = 51), R (n = 65), and CB (n = 165). Seventy-nine healthy children were recruited into the study as the control group...Findings revealed controls scored better than ADHD subjects and ADHD subjects scored better on MPH than with no drug.

---

**AD/HD Baseline: 16-Year-Old Female**

<table>
<thead>
<tr>
<th>Domain Scores</th>
<th>Standard Scores</th>
<th>PI (n = 51)</th>
<th>R (n = 65)</th>
<th>CB (n = 165)</th>
<th>Control</th>
<th>Pairwise Comparisons</th>
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<tbody>
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<td>72</td>
<td>95</td>
<td>98</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
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<tr>
<td>Composite Memory</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
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<tr>
<td>Psychomotor speed</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
<tr>
<td>Reaction time</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
<tr>
<td>Complex attention</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
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<tr>
<td>Cognitive flexibility</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
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</table>

**AD/HD Post Medication: 16-Year-Old Female**

<table>
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<th>Domain Scores</th>
<th>Standard Scores</th>
<th>PI (n = 51)</th>
<th>R (n = 65)</th>
<th>CB (n = 165)</th>
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<tr>
<td>Neurocognition Index</td>
<td>110</td>
<td>72</td>
<td>95</td>
<td>98</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
<tr>
<td>Composite Memory</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
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<td>95</td>
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<td>PI = R = CB &lt; control</td>
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<tr>
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<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
<tr>
<td>Complex attention</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
<tr>
<td>Cognitive flexibility</td>
<td>85</td>
<td>83</td>
<td>90</td>
<td>95</td>
<td>100</td>
<td>PI = R = CB &lt; control</td>
</tr>
</tbody>
</table>

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**Psychometric Measures for Treatment Response**

Evaluate the neuropsychological characteristics of PI - predominantly inattentive, R – restrictive, and CB - combined (inattentive & hyperactive) AD/HD subtypes...

**Comparisons of CNSVS Domain Scores Between the AD/HD Groups Before MPH Medication Administration**

**Comparisons After MPH Administration**

---

Case Examples: AD/HD, Medication Effects

Janie, a sixteen-year-old girl struggling in school was given CNS Vital Signs VS4 Clinical Battery and scored below average compared to her peers in 7 of 11 cognitive domains (pre-dose). Her lowest scores were in domains represented by venerable frontal lobe tests.

After reviewing H&P, all test results, the PCS -pediatric symptom checklist & the Vanderbilt AD/HD rating scales; Janie was given a prescription medication. Four weeks later she was administered the test again after being on medication (post dose).

The CNS Vital Signs report is available immediately after the testing session ends and provides utility as a tool for assessing academic and vocational accommodations, secondary gain, as well as measuring medication effect and helping clinicians tailor medications to achieve optimal clinical benefit.

---

**PREVENTIVE (DSM-V):** If criterion A1 (inattention) is met, but no more than two symptoms from criterion A2 (hyperactivity /impulsivity) have been present for the past 6 months.
Case Examples: Concussion, mTBI, PTSD

mTBI / Concussion Post Injury: 20-Year-Old Male

Following a collision in a club rugby match, Paul, a 20-year-old college student, visited the ER complaining of a headache and nausea. Not having a cognitive baseline, Paul was given CNS Vital Signs VS4 Clinical Battery (1st post injury). Compared to his peers, he scored below average in 4 of 11 cognitive domains. His lowest scores were in domains represented by frontal lobe tests.

After examining Paul and reviewing the CT scan, symptom scale as well as the cognitive test results; Paul was started on a concussion management protocol. Two weeks later after he was symptom free, he was administered the test again (2nd post injury). The CNS Vital Signs session and longitudinal reports were available immediately after the testing session allowing the clinician to evaluate and manage Paul efficiently at the office visit.

The CNS Vital Signs testing platform is designed to support TBI, mTBI and sports concussion guidelines.

mTBI / Concussion 2nd Post Injury: 20-Year-Old Male

Examining Microstructural White Matter in Active-Duty Soldiers with a History of Mild Traumatic Brain Injury and Traumatic Stress

Method: Seventy-four active-duty U.S. soldiers with PTS (n = 16) and PTS with co-morbid history of mTBI (PTS/mTBI; n = 28) were compared to a military control group (n = 30). Participants received a battery of neurocognitive and clinical symptom measures. The number of abnormal DTI (diffusion tensor imaging) values was determined (>2 SDs from the mean of the control group) for fractional anisotropy (FA) and mean diffusivity (MD), and then compared between groups...

Results: The comorbid PTS/mTBI group had significantly greater traumatic stress, depression, anxiety, and post-concussive symptoms, and they performed worse on neurocognitive testing than those with PTS alone and controls. The groups differed greatly on several clinical variables, but contrary to what we hypothesized, they did not differ greatly on primary and exploratory analytic approaches of hetero-spatial whole brain DTI analyses.

Conclusion: In conclusion, our findings do not provide strong evidence of compromised white matter integrity between our clinical groups compared to controls using several analytic approaches. In contrast, our groups were best categorized by robust differences in clinical symptoms and neurocognitive scores (i.e., CNS Vital Signs / TOMM). As such, our findings suggest that psychological health conditions rather than pathoanatomical changes may be contributing to symptoms presented by soldiers with comorbid PTS and mTBI.


Correlation to Imaging Markers

Post Concussion Syndrome - PTSD


*Comparing symptom severity, neurocognitive functioning, and self-report measures of the control subjects and the... PCS-PTSD group (green stars). The significance threshold (0.05) is visible as a thick horizontal line. Control subjects exhibited significantly better neurocognitive performance, less sleepiness and anxiety, and less combat exposure. PCS-PTSD subjects exhibited significantly worse neurocognitive performance and higher PCS symptom.

*Adapted from: Human Brain Mapping 38:2843–2864 (2017); Compromised Hippocampus-Striatum Pathway as a Potential Imaging Biomarker of Mild-Traumatic Brain Injury and Posttraumatic Stress Disorder; Rangaprakash et al.
Key Points:

- **MCI is clinically important**, but often not recognized... Since **cognition is the most sensitive indicator of brain function**, and is **cost effectively assessed**, this creates an enormous opportunity to improve neurologic care.
- **Annual cognitive health assessment for patients 65 years and older**
- **Assessment** and treatment of factors contributing to **MCI**
- **Use an objective measure** of cognition
- Periodically and routinely assessing cognitive health with **a standardized measure** is necessary... should be documented in medical records over time to allow change in cognition to be recognized and addressed early.
- The purpose of assessing cognitive health is not limited to identifying disease. Cognitive impairment is a dominant comorbidity...

"In a survey of its members, AARP found that 'staying mentally sharp' was a top concern of 87 percent of respondents..." ^

---

"1 in 9 people aged 45 years and older are experiencing (SCD) Subjective Cognitive Decline"

---

"Let us help you see the EARLY SIGNS!"

**CNS Vital Signs Turns the Subjective into Objective Insight**

---

"CNS Vital Signs Normative Data Mirrors the CDC findings from the Healthy Brain Initiative#"

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"Early Detection of MCI-Mild Cognitive Impairment is an important factor to Positively Impact Brain Health."

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^ Cognitive Aging: Progress in Understanding and Opportunities for Action; Institute of Medicine

CDC and Alzheimer’s Association; Healthy Brain Initiative; https://www.cdc.gov/aging/healthybrain/

# Source: Reliability and validity of a computerized neurocognitive test battery, CNS Vital Signs; Archives of Clinical Neuropsychology; Volume 21, Issue 7, October 2006, Pages 623–643
CNS Vital Signs is Widely Used to Measure Neurocognition
...in Neurodegenerative, Neuropsychiatric, Neurotraumatic and Neurodevelopmental Disorders

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