

#### **NIH Resources**

The NINDS also strongly encourages researchers to use these NIH developed materials for NINDS-sponsored research, when appropriate. Utilization of these resources will enable greater consistency for NINDS-sponsored research studies. Some of these tools are free of charge.

- National Institutes of Health (NIH) Toolbox
- Quality of Life in Neurological Disorders (Neuro-QOL)
- Patient-Reported Outcomes Measurement Information System (PROMIS)

#### **Suicidal Ideation**

Investigators should review the FDA's <u>"Guidance for Industry: Suicidal Ideation and Behavior: Prospective</u> <u>Assessment of Occurrence in Clinical Trials</u>" for the most up-to-date information about suicidal ideation and behavior. One scale that FDA suggests is the Columbia Suicide Severity Rating Scale (C-SSRS) (available at <u>Columbia Suicide Severity Rating Scale Website</u>).

Subgroup	Recommendations
Sport-Related Concussion	These instruments and elements are recommended for use in all Sport-Related Concussion (SRC) studies:
	Core instruments:
	<u>One</u> of the following Cognitive Assessment measures should be collected: Automated Neuropsychological Assessment Metrics (ANAM), Axon Sports Computerized Cognitive Assessment Tool (CCAT), CNS Vital Signs, Immediate Post- Concussion Assessment and Cognitive Testing (ImPACT). Please note that these could be replaced by a pen or paper battery under the direction of a neuropsychologist.
	<u>One</u> of the following Post-concussive/mild TBI related Symptoms measures should be collected: Health and Behavior Inventory (HBI), Concussion Symptom Inventory (PCSI), Post Concussion Symptoms Scale (PCSS), Rivermead Post-Concussive Symptoms Questionnaire (RPQ).
	Acute: Balance Error Scoring System (BESS)
	<i>Acute:</i> <u>One</u> of the following Post-concussive/mild TBI Related Symptoms should be collected: Child Sport Concussion Assessment Tool (Child-SCAT), Post Concussion Symptom Inventory (PCSI), Post Concussion Symptoms Scale (PCSS), Sport Concussion Assessment Tool (SCAT-3) _or 5, or Rivermead Post- Concussive Symptoms Questionnaire (RPQ).
	<b>Subacute:</b> <u>One</u> of the following Post-concussive/mild TBI Related Symptoms should be collected: Health and Behavior Inventory (HBI), Post Concussion Symptom Inventory (PCSI), Post Concussion Symptoms Scale (PCSS), or Rivermead Post-Concussive Symptoms Questionnaire (RPQ).



Subgroup	Recommendations
	<b>Persistent/Chronic:</b> <u>One</u> of the following Post-concussive/mild TBI Related Symptoms should be collected: Health and Behavior Inventory (HBI), Post Concussion Symptom Inventory (PCSI), Post Concussion Symptoms Scale (PCSS), or Rivermead Post-Concussive Symptoms Questionnaire (RPQ).
	Supplemental-Highly Recommended: Acute: Brief Symptom Inventory 18 Item (BSI-18), Center for Epidemiologic Studies Depression Scale (CES-D), Children's Orientation and Amnesia Test (COAT), Controlled Oral Word Association Test (COWAT), Health and Behavior Inventory (HBI), Hopkins Verbal Learning Test -Revised (HVLT-R), Trail Making Test (TMT), Wechsler Adult Intelligence Scale (WAIS-IV), Wechsler Intelligence Scale for Children (WISC-V)
	<i>Subacute:</i> Controlled Oral Word Association Test (COWAT), Dizziness Handicap Inventory (DHI), Hopkins Verbal Learning Test -Revised (HVLT-R), Pediatric Quality of Life Inventory (PEDSQL), Standardized Assessment of Concussion (SAC), Trail Making Test (TMT), Wechsler Adult Intelligence Scale (WAIS-IV), Wechsler Intelligence Scale for Children (WISC-V), VOMS (Brief Vestibular/Ocular Motor Screening Assessment).
	<b>Persistent/Chronic:</b> Controlled Oral Word Association Test (COWAT), Dizziness Handicap Inventory (DHI), Dynamic Gait Index, Functional Gait Assessment, Hopkins Verbal Learning Test -Revised (HVLT-R), Trail Making Test (TMT), Wechsler Adult Intelligence Scale (WAIS-IV), Wechsler Intelligence Scale for Children (WISC-V).
	Core and Supplemental-Highly Recommended elements: See Start-Up Resource Listing document ( <u>SRC Start-Up Resource Listing</u> )
NIH Resources	<b>Core:</b> None <b>Supplemental:</b> National Institutes of Health (NIH) Toolbox, Patient-Reported Outcomes Measurement Information System (PROMIS); Quality of Life in Neurological Disorders (Neuro-QOL)
Summary Documents	Acute Subgroup Working Group Summary, Subacute Subgroup Working Group Summary, and Persistent/Chronic Working Group Summary
Participant Characteristics; Demographics	Core: General Core Supplemental – Highly Recommended: None
	Supplemental: Demographic
Participant	Exploratory: None Core: None



Subgroup	Recommendations
Characteristics; Social Status	Supplemental – Highly Recommended: None
	Supplemental: Socioeconomic Status
	Exploratory: None
Participant History and Family History;	Core: None
General Health	Supplemental – Highly Recommended: None
History	<b>Supplemental:</b> Personal Medical History; Participant and Family Psychological History; Concussion History; Migraine History; Substance Use
	Exploratory: None
History of Disease/Injury	Core: None
Related Events; History of	Supplemental – Highly Recommended: None
Disease/Injury Event	Supplemental: Injury Report; Return to Play
	Exploratory: None
Assessment and Examinations;	Core: None
Physical Examinations	Supplemental – Highly Recommended: None
	Supplemental: Clinical Examination
	Exploratory: None
Assessments and Examinations;	Core: None
Vital Signs	Supplemental – Highly Recommended: None
	Supplemental: Vital Signs
	Exploratory: None
Assessments and Examinations;	Core: None
Laboratory Tests and Biospecimens /	Supplemental – Highly Recommended: None
Biomarkers	<b>Supplemental:</b> Active Saliva Collection; DNA Guidelines For Genomic Analyses; Passive Saliva Collection; Serum Collection Protocol; Plasma and Serum Guidelines for Proteomic Analysis; TBI Biospecimen Collection Protocol



Subgroup	Recommendations
	Exploratory: None
Assessments and Examinations;	Core: None
Imaging Diagnostic	Supplemental – Highly Recommended: None
	Supplemental: Imaging
	Exploratory: None
Treatment /Intervention Data;	Core: None
Drugs	Supplemental – Highly Recommended: None
	Supplemental: Medications
	Exploratory: None
Treatments / Intervention Data;	Core: None
Therapies	Supplemental – Highly Recommended: None
	Supplemental: Treatment and Interventions
	Exploratory: None
Outcomes and End Points; Academic	Core: None
	Supplemental – Highly Recommended: None
	<b>Supplemental:</b> Wechsler Test of Adult Reading ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Test of Premorbid Functioning (TOPF) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> )
	Exploratory: None
Outcomes and End Points; Behavioral	Core: None
Function	Supplemental – Highly Recommended: None
	Supplemental: None
	<b>Exploratory:</b> Child Behavior Checklist (CBCL) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Frontal Systems Behavior Scale (FrSBe) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> )



Subgroup	Recommendations
Outcomes and End Points; Effort /Symptom	Core: None
Effort/Symptom Validity	Supplemental – Highly Recommended: None
	<b>Supplemental:</b> Medical Symptom Validity Test ( <i>Subacute and Persistent Chronic timeframes</i> ); Test of Memory Malingering ( <i>Subacute and Persistent Chronic timeframes</i> )
	<b>Exploratory:</b> Test of Memory Malingering ( <i>Acute</i> ); Word Memory Test ( <i>Subacute</i> and Persistent/Chronic timeframes)
Outcomes and End Points; Family and	Core: None
Environment	Supplemental – Highly Recommended: None
	<b>Supplemental:</b> Conflict Behavior Questionnaire (CBQ)/Interaction Behavior Questionnaire (IBQ) ( <i>Persistent/Chronic timeframe</i> ); Family Assessment Device (FAD) ( <i>Persistent/Chronic timeframe</i> );
	<b>Exploratory:</b> Child and Adolescent Scale of Environment (CASE) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Conflict Behavior Questionnaire (CBQ)/Interaction Behavior Questionnaire (IBQ) ( <i>Subacute timeframe</i> ); Family Assessment Device (FAD) ( <i>Subacute timeframe</i> ); Family Burden of Injury Interview (self-report or interview) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Family History Research Diagnostic Criteria (FHRDC) ( <i>Subacute and Persistent/Chronic timeframes</i> )
Outcomes and End Points; Global	Core: None
Outcomes	Supplemental – Highly Recommended: None
	Supplemental: None
	<b>Exploratory:</b> Mayo-Portland Adaptability Inventory (MPAI-4) – Adult ( <i>Subacute and Persistent/Chronic timeframes</i> ); Mayo-Portland Adaptability Inventory (MPAI-4) – Pediatric ( <i>Subacute and Persistent/Chronic timeframes</i> )
Outcomes and End Points; Mood/	Core: None
Anxiety	Supplemental – Highly Recommended: Center for Epidemiologic Studies Depression Scale (CES-D) ( <i>Acute timeframe</i> )
	<b>Supplemental:</b> Beck Depression Inventory - 2 (BDI-2) ( <i>Subacute and</i> <i>Persistent/Chronic timeframes</i> ); Center for Epidemiologic Studies Depression Scale (CES-D) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Children's Depression Inventory ( <i>Subacute and Persistent/Chronic timeframes</i> ); Generalized Anxiety Disorder 7 (GAD 7) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Patient Health



Subgroup	Recommendations
	Questionnaire (9 Item) (PHQ-9) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Short Mood and Feelings Questionnaire (SMFQ) ( <i>Acute timeframe</i> )
	<b>Exploratory:</b> Beck Depression Inventory - 2 (BDI-2) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Brief Sensation Seeking Scale (BSSS) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); NIH Toolbox Emotional Battery( <i>Subacute and Persistent/Chronic timeframes</i> ); Post Traumatic Stress Disorder Checklist (PCL) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Screen for Child Anxiety Related Emotional Disorders (SCARED) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Short Mood and Feelings Questionnaire (SMFQ) ( <i>Subacute and Persistent/Chronic timeframes</i> ); The UCLA PTSD Index for the DSM-5( <i>Subacute and Persistent/Chronic timeframes</i> )
Outcomes and End Points; Neurological	Core: None
	Supplemental – Highly Recommended: None
	<b>Supplemental:</b> Neurological Outcome Scale (NOS) (Subacute and Persistent/Chronic timeframes)
	Exploratory: None
Outcomes and End Points; Neuromotor	<b>Core:</b> Balance Error Scoring System (Modified) ( <i>Acute timeframe</i> )
Function	Supplemental –Highly Recommended: Dynamic Gait Index(Persistent/Chronic timeframe); Functional Gait Assessment (Persistent/Chronic timeframe)
	Supplemental: Activities Specific Balance Confidence Scale (ABC-Scale)( <i>Acute,</i> <i>Subacute and Persistent/Chronic timeframes</i> ); Balance Error Scoring System (Modified) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Dynamic Gait Index ( <i>Subacute timeframe</i> ); Functional Gait Assessment( <i>Subacute timeframe</i> ); NIH Toolbox Standing Balance Test (BST) ( <i>Acute and Subacute timeframes</i> ); Patient Reported Outcomes Measurement Information System (PROMIS) ( <i>Acute, Subacute and Persistent/Chronic timeframes</i> ); Walking While Talking Test (Dual Task Test) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Neck Disability Index ( <i>Subacute and Persistent/Chronic timeframes</i> )
	<b>Exploratory:</b> NIH Toolbox Motor Battery ( <i>Subacute and Persistent/Chronic timeframes</i> ); NIH Toolbox Standing Balance Test (BST) (Acute and Chronic/Persistent timeframes); BOT2 balance subset( <i>Acute, Subacute and Persistent/Chronic timeframes</i> );
Outcomes and End Points; Cognitive Assessments	<b>Core:</b> Automated Neuropsychological Assessment Metrics (ANAM)** (Acute, Subacute, and Persistent Chronic timeframes); Axon Sports Computerized Cognitive Assessment Tool (CCAT)**(Acute, Subacute, and Persistent Chronic timeframes); CNS Vital Signs** (Acute, Subacute, and Persistent Chronic timeframes); Immediate



Post-Concussion Assessment and Cognitive Testing (ImPACT)** (Acute, Subacute, and Persistent Chronic timeframes); Standardized Assessment of Concussion (SAC)** (Acute timeframe)         Supplemental – Highly Recommended: Children's Orientation and Annesia Test (COAT) (Acute timeframe), Controlled Oral Word Association Test (COWAT) (Acute, Subacute, and Persistent Chronic timeframes); Hopkins Verbal Learning Test - Revised (HVLT-R) (Acute, Subacute, and Persistent Chronic timeframe); Standardized Assessment of Concussion (SAC) (Subacute timeframe); Test (TMT) (Acute, Subacute, and Persistent Chronic timeframe); Wechsler Intelligence Scale (WAIS-IV) (Acute, Subacute, and Persistent Chronic timeframes); Wechsler Intelligence Scale for Children (WISC-V) (Acute, Subacute, and Persistent Chronic timeframes)         Supplemental: Acute Concussion Evaluation Form (ACE) (Acute, Subacute, and Persistent Chronic timeframes); Behavior Rating Inventory of Executive Function (BRIEF) (Acute, Subacute, and Persistent Chronic timeframe); Delis-Kaplan Executive Function System (D-KEFS) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test II *** (Persistent/Chronic timeframe); Delis-Kaplan Executive Function System (D-KEFS) (Acute, Subacute, and Persistent Chronic timeframes); Repeatable Battery for Assessment of Neuropsychological Status (RBANS) (Acute, Subacute, and Persistent Chronic timeframes); Rey Auditory Verbal Learning Test (RANLT) (Persistent/Chronic timeframes); Symbol Digit Modalities Test (Acute, Subacute, and Persistent Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revised (WRAML-2) (Acute, Subacute, and Persistent Chronic timeframes); Woodcock-Johnson, 3rd Edition (WJ-III); Achievement Tests (Subacute and Persistent/Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revised (WRAML-2) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Tes	Subgroup	Recommendations
<ul> <li>(COAT) (Acute timeframe), Controlled Oral Word Association Test (COWAT) (Acute, Subacute, and Persistent Chronic timeframes); Hopkins Verbal Learning Test - Revised (HVLT-R) (Acute, Subacute, and Persistent Chronic timeframes); Standardized Assessment of Concussion (SAC) (Subacute timeframes); Trail Making Test (TMT) (Acute, Subacute, and Persistent Chronic timeframes); Wechsler Intelligence Scale (WAIS-IV) (Acute, Subacute, and Persistent Chronic timeframes); Wechsler Intelligence Scale for Children (WISC-V) (Acute, Subacute, and Persistent Chronic timeframes); Buplemental: Acute Concussion Evaluation Form (ACE) (Acute, Subacute, and Persistent Chronic timeframes); Behavior Rating Inventory of Executive Function (BRIEF) (Acute, Subacute, and Persistent Chronic timeframes); Brief Visuospatial Memory Test – Revised (BVMT-R) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test II *** (Persistent/Chronic timeframe); Delis-Kaplan Executive Function System (D-KEFS) (Acute, Subacute, and Persistent Chronic timeframes); Repeatable Battery for Assessment of Neuropsychological Status (RBANS) (Acute, Subacute, and Persistent Chronic timeframes); Rey Auditory Verbal Learning Test (RAVLT) (Persistent/Chronic timeframes); Rey Auditory Verbal Learning-Revistent Chronic timeframes); Symbol Digit Modalities Test (Acute, Subacute, and Persistent Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revistent Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revised (WRAML-2) (Acute, Subacute, and Persistent Chronic timeframes); Woodcock-Johnson, 3rd Edition (WJ-III); Achievement Test (Subacute and Persistent/Chronic timeframes); Word Reading Subest of the Wide Range Achievement Test (WRAT-4) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test for Children (CVLT-C) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test III) (Acute, Subacute, and Persistent Chronic timeframes); Color-Word Inte</li></ul>		and Persistent Chronic timeframes); Standardized Assessment of Concussion
<ul> <li>Persistent Chronic timeframes); Behavior Rating Inventory of Executive Function (BRIEF) (Acute, Subacute, and Persistent Chronic timeframes); Brief Visuospatial Memory Test – Revised (BVMT-R) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test II *** (Persistent/Chronic timeframe); Delis-Kaplan Executive Function System (D-KEFS) (Acute, Subacute, and Persistent Chronic timeframes); Repeatable Battery for Assessment of Neuropsychological Status (RBANS) (Acute, Subacute, and Persistent Chronic timeframes); Rey Auditory Verbal Learning Test (RAVLT) (Persistent/Chronic timeframe); Stroop Test (Acute, Subacute, and Persistent Chronic timeframes); Symbol Digit Modalities Test (Acute, Subacute, and Persistent Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revised (WRAML-2) (Acute, Subacute, and Persistent Chronic timeframes); Woodcock-Johnson, 3rd Edition (WJ-III); Achievement Tests (Subacute and Persistent/Chronic timeframes); Word Reading Subtest of the Wide Range Achievement Test (WRAT-4) (Acute, Subacute, and Persistent Chronic timeframes)</li> <li>Exploratory: Beery-Buktenica Developmental Test of Visual-Motor Integration, 6th edition (Beery VMI) (Acute, Subacute, and Persistent Chronic timeframes); Cognitive Battery -NIH Toolbox (Acute, Subacute, and Persistent Chronic timeframes); Color-Word Interference Test (Acute, and Persistent Chronic timeframes); Color-Word Interference Test (Acute, Subacute, and Persistent Chronic timeframes); Color-Word Interference Test (Acute, Subacute, and Persistent Chronic timeframes); Color-Word Interferences); Rey Auditory Verbal Learning Test</li> </ul>		(COAT) ( <i>Acute timeframe</i> ), Controlled Oral Word Association Test (COWAT) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Hopkins Verbal Learning Test - Revised (HVLT-R) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Standardized Assessment of Concussion (SAC) ( <i>Subacute timeframe</i> ); Trail Making Test (TMT) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Wechsler Adult Intelligence Scale (WAIS-IV) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Wechsler Intelligence Scale for Children (WISC-V) ( <i>Acute, Subacute, and Persistent</i>
edition (Beery VMI) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); California Verbal Learning Test for Children (CVLT-C) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); California Verbal Learning Test II*** ( <i>Acute and Subacute timeframes</i> ); Cognitive Battery -NIH Toolbox ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Color-Word Interference Test ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Conners' Continuous Performance Test-Revised (CPT - III) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Grooved Pegboard Test ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Rey Auditory Verbal Learning Test		Persistent Chronic timeframes); Behavior Rating Inventory of Executive Function (BRIEF) (Acute, Subacute, and Persistent Chronic timeframes); Brief Visuospatial Memory Test – Revised (BVMT-R) (Acute, Subacute, and Persistent Chronic timeframes); California Verbal Learning Test II *** (Persistent/Chronic timeframe); Delis-Kaplan Executive Function System (D-KEFS) (Acute, Subacute, and Persistent Chronic timeframes); Repeatable Battery for Assessment of Neuropsychological Status (RBANS) (Acute, Subacute, and Persistent Chronic timeframes); Rey Auditory Verbal Learning Test (RAVLT) (Persistent/Chronic timeframe); Stroop Test (Acute, Subacute, and Persistent Chronic timeframes); Symbol Digit Modalities Test (Acute, Subacute, and Persistent Chronic timeframes); Wide-Range Assessment of Memory and Learning-Revised (WRAML-2) (Acute, Subacute, and Persistent Chronic timeframes); Woodcock-Johnson, 3rd Edition (WJ-III); Achievement Tests (Subacute and Persistent/Chronic timeframes); Word Reading Subtest of the Wide Range
Subacute, and Persistent Chronic timeframes); Tasks of Executive Control (TEC) (Acute, Subacute, and Persistent Chronic timeframes); Test of Memory and Learning-Revised (TOMAL-2) (Acute, Subacute, and Persistent Chronic timeframes); Test of Word Reading Efficiency 2nd Edition (TOWRE-2) (Acute, Subacute, and Persistent Chronic timeframes); Wechsler Abbreviated Scale of Intelligence (WASI II); 2 subtest version (Acute, Subacute, and Persistent Chronic timeframes)		edition (Beery VMI) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); California Verbal Learning Test for Children (CVLT-C) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); California Verbal Learning Test II*** ( <i>Acute and Subacute timeframes</i> ); Cognitive Battery -NIH Toolbox ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Color-Word Interference Test ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Conners' Continuous Performance Test-Revised (CPT - III) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Grooved Pegboard Test ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Rey Auditory Verbal Learning Test (RAVLT) ( <i>Acute and Subacute timelines</i> ); Test of Everyday Attention (Tea-Ch) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Tasks of Executive Control (TEC) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Test of Memory and Learning-Revised (TOMAL-2) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Test of Word Reading Efficiency 2nd Edition (TOWRE-2) ( <i>Acute, Subacute, and Persistent Chronic timeframes</i> ); Test of Intelligence (WASI



Subgroup	Recommendations
Outcomes and End Points; Vestibular	Core: None
and Oculo Motor Function	<b>Supplemental – Highly Recommended:</b> Dizziness Handicap Inventory (DHI) ( Subacute timeframe and Persistent/Chronic); VOMS (Brief Vestibular/Ocular Motor Screening Assessment) (Subacute timeframe)
	Supplemental: Dizziness Handicap Inventory (DHI) ( <i>Acute timeframe</i> ); Dynamic Visual Acuity Test -NIH Toolbox ( <i>Acute, Subacute and Persistent/Chronic</i> <i>timeframe</i> ); Tinnitus Functional Index (TFI) ( <i>Subacute and Persistent/Chronic</i> <i>timeframe</i> ); Tinnitus Handicap Inventory (THI) ( <i>Subacute and Persistent/Chronic</i> <i>timeframe</i> ); VOMS (Brief Vestibular/Ocular Motor Screening Assessment) ( <i>Persistent/Chronic timeframe</i> ); Clinical Test of Dynamic Visual Acuity ( <i>Subacute and</i> <i>Persistent Chronic timeframe</i> ); Computerized Test of Dynamic Visual Acuity ( <i>Subacute and Persistent/Chronic timeframes</i> ); King Devick ( <i>Acute, Subacute and</i> <i>Persistent/Chronic timeframe</i> )
	<b>Exploratory:</b> VOMS (Brief Vestibular/Ocular Motor Screening Assessment) ( <i>Acute timeframe</i> ); Clinical Test of Dynamic Visual Acuity ( <i>Acute timeframe</i> ); Computerized Test of Dynamic Visual Acuity ( <i>Acute timeframe</i> )
Outcomes and End Points; Other	Core: None
Symptoms	Supplemental – Highly Recommended: Brief Symptom Inventory-18 (BSI-18) (Acute timeframe)
	<b>Supplemental:</b> Brief Symptom Inventory-18 (BSI-18) ( <i>Subacute and Persistent/Chronic timeframe</i> )
	Exploratory: None
Outcomes and End Points; Post- concussive/mild TBI Related Symptoms	<b>Core:</b> Child Sport Concussion Assessment Tool (Child-SCAT) ( <i>Acute timeframe</i> ); Health and Behavior Inventory (HBI) (Subacute and Persistent/Chronic timeframes); Post-concussion Symptom Inventory (PCSI) ( <i>Acute timeframe</i> ); Post Concussion Symptoms Scale (PCSS) ( <i>Acute, Subacute and Persistent/Chronic timeframes</i> ); The Rivermead Postconcussive Symptom Questionnaire (RPQ) ( <i>Acute, Subacute and</i> <i>Persistent/Chronic timeframes</i> )
	Supplemental – Highly Recommended: Health and Behavior Inventory (HBI) (Acute timeframe)
	<b>Supplemental:</b> Automated Neuropsychological Assessment Metrics (ANAM) ( <i>Persistent/Chronic timeframe</i> ); Axon Sports Computerized Cognitive Assessment Tool (CCAT) ( <i>Persistent/Chronic timeframe</i> ); CNS Vital Signs ( <i>Persistent/Chronic</i>



Subgroup	Recommendations
	<ul> <li>timeframe); Child Sport Concussion Assessment Tool (Child-SCAT) (Acute and Persistent/Chronic timeframe); Galveston Orientation and Amnesia Test (GOAT) ( Acute timeframe); Health and Behavior Inventory (HBI) (Subacute and Persistent/Chronic timeframes); Post-concussion Symptom Inventory (PCSI) (Subacute and Persistent/Chronic timeframes); Sport Concussion Assessment Tool (SCAT-3) _or 5 (Subacute and Persistent/Chronic timeframes)</li> <li>Exploratory: Immediate Post-Concussion Assessment and Cognitive Testing (imPACT) (Persistent/Chronic timeframe)</li> </ul>
Outcomes and End Points; Psychological Other	Core: None         Supplemental – Highly Recommended: None         Supplemental: Alcohol, Smoking, and Substance Use Involvement Screening Test (ASSIST) (Persistent/Chronic timeframe); Alcohol Use Disorders Identification Test: Self-Report Version (AUDIT) (Subacute and Persistent/Chronic timeframes); Substance Abuse Questions from the TBI Model Systems Database (Acute timeframe)         Exploratory: Alcohol, Smoking, and Substance Use Involvement Screening Test (ASSIST) (Subacute timeframe); Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL) (Subacute and Persistent/Chronic timeframes); Minnesota Multiphasic Personality Inventory – 2 – Restructured Form (MMPI-2-RF) (Subacute and Persistent/Chronic timeframes); NIH Toolbox Sensory Battery (Subacute and Persistent/Chronic timeframes); Substance Abuse Questions from the TBI Model Systems Database (Subacute timeframe)



Outcomes and End Points; Quality of Life/ Patient Reported Outcomes	<b>Core:</b> None <b>Supplemental – Highly Recommended:</b> Pediatric Quality of Life Inventory (PEDSQL) ( <i>Subacute timeframe</i> )
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	<b>Supplemental:</b> Pediatric Quality of Life Inventory (PEDSQL) ( <i>Acute and Persistent/Chronic timeframes</i> ); Short Form-12 Health Survey (SF-12) (Subacute timeframe); Short Form-36 Medical Outcome Study (SF-36 v2) ( <i>Persistent/Chronic timeframe</i> ); Satisfaction with Life Scale (SWLS) ( <i>Acute timeframe</i> )
	<b>Exploratory:</b> NIH Toolbox Odor Identification Test (OIT) ( <i>Persistent/Chronic timeframes</i> ); Patient Reported Outcomes Measurement Information System (PROMIS) ( <i>Acute, Subacute and Persistent/Chronic timeframes</i> ); Quality of Life in Neurological Disorders (Neuro-QOL) ( <i>Acute, Subacute and Persistent/Chronic timeframes</i> ); Regional Taste Intensity Test - NIH Toolbox ( <i>Persistent/Chronic timeframe</i> ); Short Form-12 Health Survey (SF-12) ( Acute timeframe); Short Form-36 Medical Outcome Study (SF-36 v2) (Subacute timeframe); TBI-QOL( <i>Acute, Subacute and Persistent/Chronic timeframes</i> )
Outcomes and End Points; Sleep	Core: None
	Supplemental – Highly Recommended: None
	<ul> <li>Supplemental: Pittsburgh Sleep Quality Index(Subacute and Persistent/Chronic timeframes); Epworth Sleepiness Scale -Adult Scale (Subacute and Persistent/Chronic timeframes); Epworth Sleepiness Scale Children's Scale(Subacute and Persistent/Chronic timeframes)</li> <li>Exploratory: Pittsburgh Sleep Quality Index(Acute timeframe); Epworth Sleepiness Scale Children's Scale (Acute timeframe); Epworth Sleepiness Scale Adult Scale (Acute timeframe); Epworth Sleep</li></ul>
Outcomes and End Points; Social	Core: None
Cognition	Supplemental – Highly Recommended: None
	Supplemental: None
	<b>Exploratory:</b> Child and Adolescent Scale of Participation (CASP) ( <i>Subacute and Persistent/Chronic timeframes</i> ); Strengths and Difficulties Questionnaire (SDQ) ( <i>Subacute and Persistent/Chronic timeframes</i> )

\*Include one or more data elements that are Core or Supplemental – Highly Recommended

\*\*One of the Core cognitive measures should be collected and one of the Core symptom checklists

\*\*\*California Verbal Learning Test II - Adults OR Rey Auditory Verbal Learning Test (RAVLT)