



# EXPANDING CONCUSSION CARE AND REVENUE STREAMS IN YOUR CHIROPRACTIC CLINIC



Learn what tools, resources, and methodologies a chiropractor may use for TBI protocol and concussion assessment.

## Expanding Concussion Care and Revenue Streams in Your Chiropractic Clinic

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# The Chiropractor's Scope of Practice for Concussion Care

In the past, concussion management was mainly limited to neuropsychologists. More recently, a multidisciplinary approach has been recommended which includes collaboration between different specialties for more comprehensive concussion treatment.

As a doctor of chiropractic, you may or may not be able to assess and manage concussions in your state. However, your role will still include triaging patients to rule out complicating factors and determining if there is involvement of the cervical spine. Chiropractors are allowed to be primary care providers and portal of entry clinicians for patients in all 50 states. However, only about 50% of the states include a scope of practice allowing a doctor of chiropractic to return an athlete back to their activity.

No matter your scope of practice, it's important to work effectively with a variety of providers when managing patients with concussion.



# Concussion Evaluation

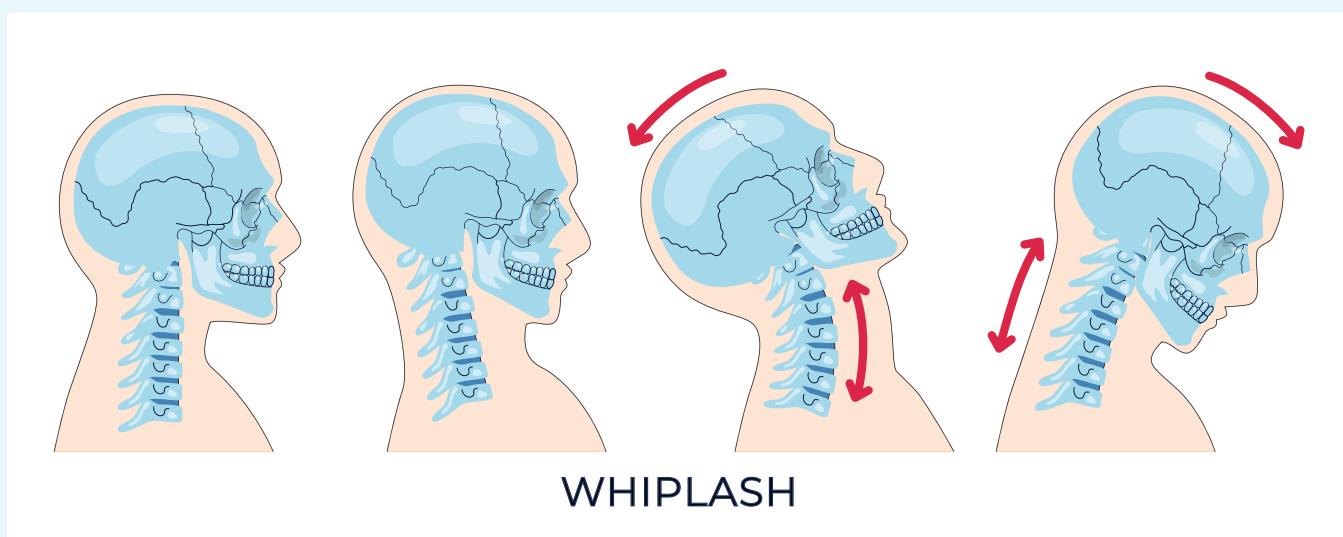
At a minimum, your comprehensive concussion evaluation should consist of:

→ Patient history	→ ImPACT
→ Physical examination	→ Symptom check
→ VOMS	→ Exercise testing
→ BESS	

Chiropractors may use **ImPACT** for patients ages 12-80 to help determine the cause of some of the signs and symptoms the patient is experiencing, as well as use it to monitor progress throughout return to academics and sport.

ImPACT consists of 8 neurocognitive test batteries that measure visual and verbal memory, reaction time, and processing speed. It also includes a 21 item concussion symptom scale that you may use to cater your exam and make sure you address any symptoms the patient is reporting. After administration, a detailed clinical report is automatically generated that you can use to help guide rehab plans.

ImPACT is a critical portion of the examination because it provides objective data that can be used to help guide treatment decisions. In instances where the patient doesn't have an established baseline, the chiropractor can compare ImPACT post-injury test results to normative data. ImPACT can be administered remotely or in-person, so chiropractors don't need to have large computer labs or additional resources to use ImPACT.



# Differential Diagnosis

## Cervical

Neck pain, headache, dizziness, gait instability, fogginess, gaze stability, difficulty with saccades, body coordination, and balance issues.

## Vestibulocochlear

Dizziness, vertigo, headache, posture imbalance, difficulty focusing, gait alterations, smooth pursuit difficulty.

## Ocular

Blurry vision, imbalance convergence errors, accommodation errors, smooth pursuit errors, difficulty performing saccades.

## Temporomandibular Joint

Headaches, neck pain, and jaw pain.

Concussion symptoms may overlap with those of other conditions, making a differential diagnosis extremely difficult to evaluate without a thorough assessment. Symptoms may be related to the cervical spine, vestibulocochlear injury, ocular dysfunction, or temporal mandibular dysfunction.

## Temporomandibular Disorders

**If the patient experiences jaw discomfort, ear pain, or headaches, you should conduct an in-depth temporomandibular joint assessment.** During which you will be looking for jaw deviations and/or malocclusion.

## Cervical Spine / Whiplash Associated Disorders (WAD)

**Whiplash associated disorders (WAD) are a category of conditions affecting the neck occurring during acceleration-deceleration injuries.**

When conducting your initial evaluation, check for these things that are typical of whiplash associated disorders:

- Reduced range of motion
- Spasm and tenderness of neck musculature
- Hyper- or hypo- mobility of the alar ligaments
- Vertigo and/or dizziness with specific cervical testing

The Quebec Task Force has classified whiplash associated disorders from 0-4.

- **Grade 0:** No complaints about the neck. No physical signs.
- **Grade 1:** Neck complaint of pain, stiffness, or tenderness only. No physical signs.
- **Grade 2:** Neck complaint AND musculoskeletal signs. Musculoskeletal signs include decreased range of motion and point tenderness.
- **Grade 3:** Neck complaint AND neurological signs. Neurological signs include decreased range of motion and point tenderness.
- **Grade 4:** Neck complaint AND fracture or dislocation.

Depending on the grade, chiropractors may need to refer out.

If a patient presents with dizziness, the chiropractor should conduct tests to determine whether the cervical spine is the cause.

### **Rotation Test:**

Have the patient sit on a stool with wheels while you hold their head stationary. Then have the patient rotate their body right and left.

**Smooth Pursuit Neck Torsion Test:** Have the patient seated and complete smooth pursuit with their head facing center, then with the neck rotated left 45 degrees, then with the neck rotated right 45 degrees.

## **Vestibular-Ocular Disorders**

Vestibular-ocular disorders can involve either the vestibulo-ocular (eye tracking) or the vestibulo-spinal system (balance). Its conditions may include:

- Otolith displacement
- Eye tracking disorders
- Peripheral vestibulopathy
- BPPV
- Tympanic Membrane Rupture

There's a wide variety of signs and symptoms seen during concussive events and WAD injuries related to function of the vestibulocochlear and ocular systems including:

- Ocular tracking
- Reaction time
- Spatial orientation
- Balance

The chiropractor's assessment of the vestibulocochlear and ocular function may include:

- H-Pattern – Smooth Pursuit
- Convergence
- VOMS
- Dix-Hallpike
- Supine Roll
- Balance Testing (BESS)
- Cover / Uncover
- Eye Fixation (horizontal and vertical)

Chiropractors may use the Head Impulse Nystagmus Test of Skew (HINTS) exam to differentiate between peripheral and central disorders.

Conduct the Head Impulse Test by placing hands bilaterally along the patient's head and having the patient fixate on your nose. Quickly turn the patient's head to one side, reset, then turn to the other side. During this movement, look for corrective saccades (abnormal if in the direction of head thrust).

### **Peripheral Vestibulopathy:**

- Abnormal head impulse test
- AND
- Nystagmus (unidirectional when looking in all directions)
- AND
- Normal Test of Skew (Cover / Uncover)

Chiropractors can treat peripheral disorders, or refer out to an ocular specialist if they don't have the expertise.

### **Central:**

- Abnormal head impulse test
- OR
- Nystagmus (vertical or bidirectional)
- OR
- Normal Test of Skew (Cover / Uncover)



# Chiropractor Concussion Treatment and Rehabilitation

In addition to the clinical assessment, chiropractors may also be involved in multiple areas of concussion rehab. These may include:

- **Neuromusculoskeletal rehab:** manual procedures including soft tissue modalities or joint manipulative therapies
- **Cervical rehab:** deep neck flexor endurance testing and proprioceptive testing
- **Sport-specific rehab:** agility drills and strength training
- **Vestibular therapy:** VOMS, Epley's Maneuver, "BBQ" Roll
- **Vision therapy:** eye exams and determining if there's blurred vision

While chiropractors may be involved in many areas of concussion rehab, it's important to recognize when something is beyond the scope of your expertise and refer out to a specialist. Make sure you have a good referral network in place that you can utilize if a patient is not making progress.

Current research supports graduated return to activity as soon as possible and suggests that it may lead to a shorter recovery time. Chiropractors may be involved in exercise testing as long as they have the necessary resources and expertise.



# Reimbursement for Chiropractic Concussion Care

As a doctor of chiropractic, you may be able to get reimbursed for a variety of techniques and modalities used for examining concussion patients.

Commonly used CPT codes for chiropractic concussion care can include those related to cognitive assessments, therapeutic interventions, and coordination of care. Understanding which codes apply and how to use them appropriately can help ensure accurate billing and improve reimbursement outcomes.

## Commonly used CPT codes for chiropractic concussion services:

### QUICK REFERENCE

**99211**

Re-evaluation

**99212-99215**

E/M established patient

**98940-98943**

Chiropractic manipulative treatment (CMT)

**97140**

Manual therapy

**97112**

Neuromuscular re-examination

**95992**

Canalith repositioning procedure

## Commonly used ICD-10 codes for chiropractic concussion care:

### Concussion

- **S06.0X0** – Concussion without loss of consciousness (LOC)
  - **S06.0X0A** – Initial encounter
  - **S06.0X0D** – Subsequent encounter
  - **S06.0X0S** – Sequela
- **S06.0X1** – Concussion with LOC 30 minutes or less
  - **S06.0X1A** – Initial encounter
  - **S06.0X1D** – Subsequent encounter
  - **S06.0X1S** – Sequela
- **S06.0X9** – Concussion with LOC of unspecified duration
  - **S06.0X9A** – Initial encounter
  - **S06.0X9D** – Subsequent encounter
  - **S06.0X9S** – Sequela

### Cervicogenic Dizziness

- **H81.4** – Vertigo of central origin (used for suspected diagnosis)
- **R42** – Dizziness and giddiness (best general code for nonspecific vertigo and cervicogenic dizziness)

### Benign Positional Paroxysmal Vertigo (BPPV)

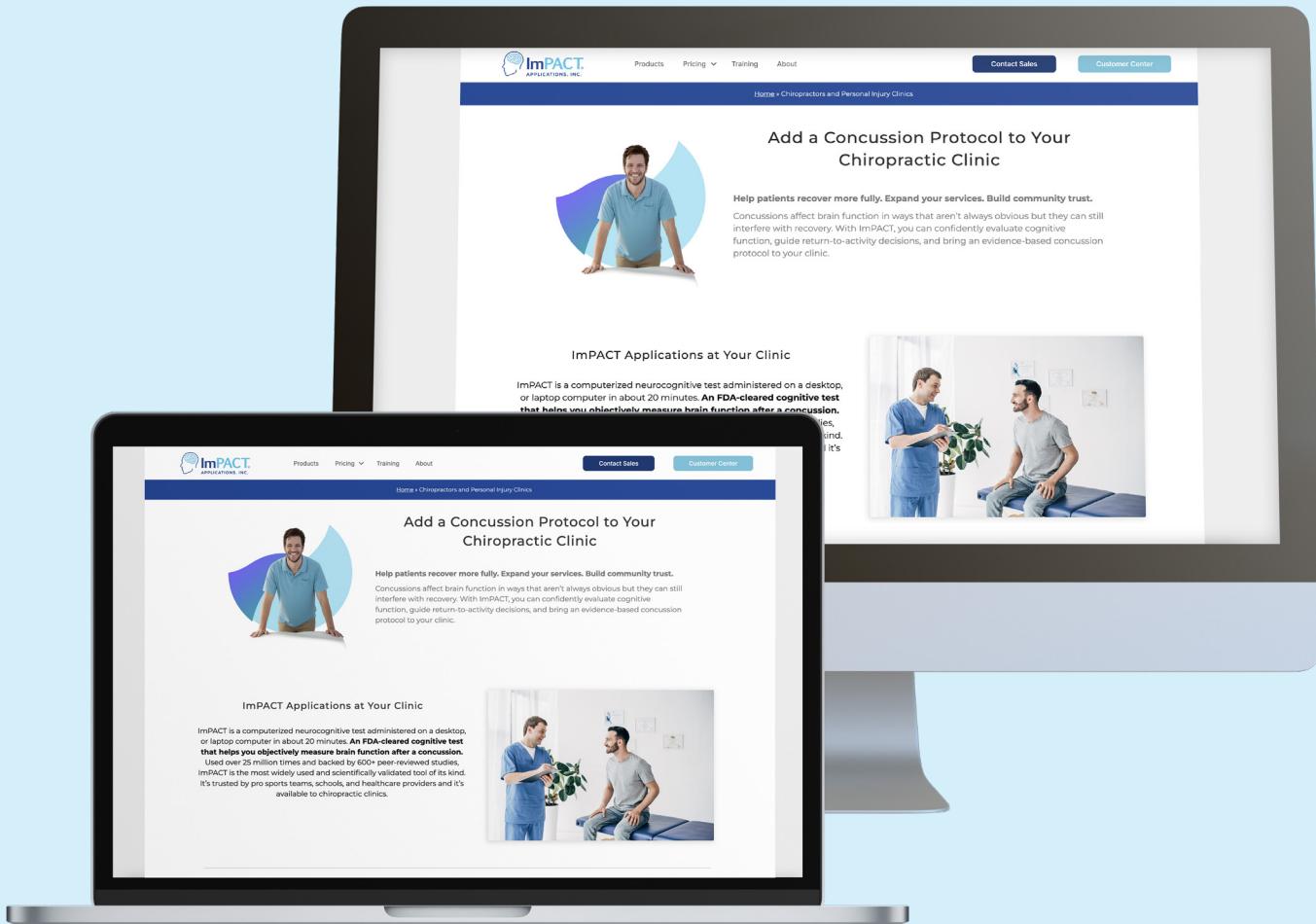
- **H81.39** – Other peripheral vertigo (used for suspected diagnosis)
- **H81.1** – Other peripheral vertigo (used for confirmed diagnosis)

### Other ICD-10 Codes

- **H53.19** – Other subjective visual disturbance
- **F07.81** – Postconcussion syndrome

# Learn More Today!

ADD A CONCUSSION PROTOCOL TO YOUR CLINIC



**Based on a presentation given by Dr. Jordan Knowlton-Key, Doctor of Chiropractic  
at the 2022 Concussion Care Virtual Conference:**

This guide is based on the scope of doctors of chiropractic in the U.S. The extent to which chiropractors can be involved in concussion management differs by state. Always check your state's scope of practice to confirm what roles and responsibilities you may have within the concussion care team.

