#7-45966 Yale Rd, Chilliwack, BC V2P 2M3
(604) 703-6470
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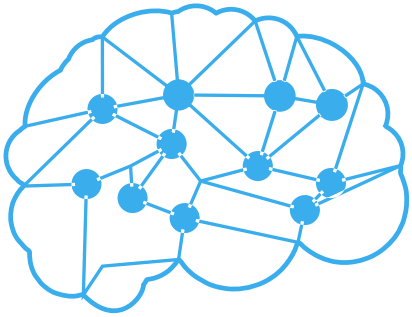
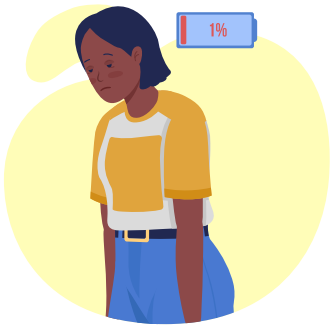
Post-Concussive Syndrome

Physiologic Dysfunction



What is it? After a concussion, our nervous system is in a state of "dysautonomia". Our autonomic nervous system that helps to regulate things like heart rate, blood pressure, and temperature is altered. What this leads to is physiologic dysfunction where we have trouble tolerating exertion (we crash easily), and trouble downregulating for rest (we don't fully rest and recover). In post-concussive syndrome, this state of dysautonomia has persisted and not gone away on it's own, leading to continual symptoms and disability.



Common signs and symptoms:

- Sleep and rest difficulties
- Mental and physical exertion difficulties
- Chronic fatigue
- Chronic headaches, neck tension
- Feeling as if in a fog, feeling drowsy
- Cognitive difficulties
- Emotional difficulties

Common experiences:

- "Crashing" after mental, emotional, or physical exertion.
- Sleeping in but still feeling unrested.
- Trouble staying asleep and/or feeling energized at night when you should be resting.
- Difficulty returning to full workloads or usual sports

Diagnosed by:

- Symptom pattern plus exertion heart-rate specific testing (buffalo concussion treadmill test).

Treatment:

- Sub-threshold heart rate aerobic exercise
- Sleep management interventions

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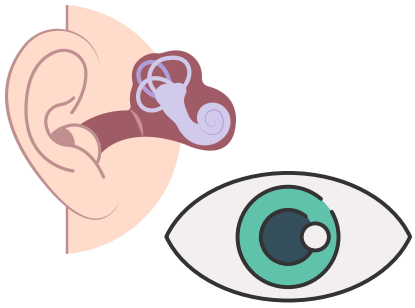
Post-Concussive Syndrome

Visual and Vestibular Dysfunction

What is it? It's common to have vision and vestibular (inner ear) dysfunction after a concussion. These two areas communicate with our neck to help us orient our position in space to control posture, movement, and muscles of the neck and eyes. When issues arise, inputs and outputs from these three regions are mismatched, and symptoms start to occur. These symptoms can be very vague and hard to identify in most eye and ear testing, so proper concussion-specific testing is crucial to detecting dysfunction.



Common signs and symptoms:

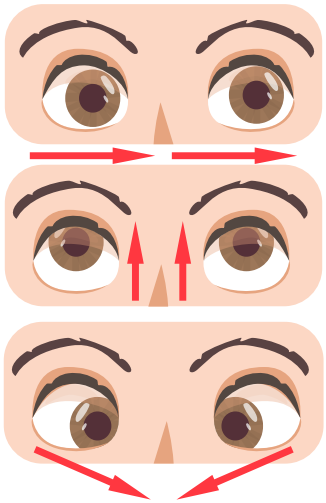
- Headache, neck pain or tension
- Dizziness, unsteadiness, balance issues
- Nausea and/or vomiting
- Vertigo
- Light sensitivity and eye strain
- Vision problems

Common experiences:

- Increase in symptoms with visual stimulation - busy mall or grocery store, while driving, trouble with screens or reading, while watching objects across visual field
- Increase in symptoms with positional changes - going from lying down to sitting or standing

Diagnosed by:

- Vestibular Oculomotor Testing: smooth pursuits, rapid eye movements, near point convergence, balance vision reflex, visual motion sensitivity
- Positional vertigo testing



Treatment:

- Guided by assessment findings and symptoms - usually includes specific vision and vestibular exercises to stimulate and retrain dysfunction

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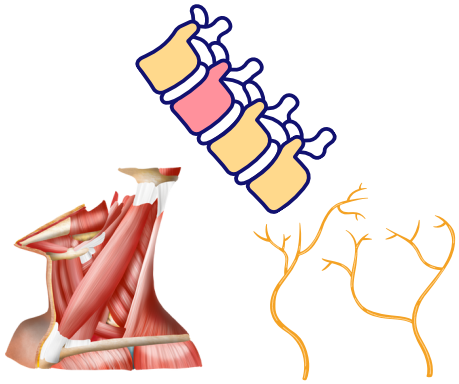
Post-Concussive Syndrome

Cervicogenic Dysfunction

What is it? Issues with our neck and skull tissues after a concussion. This presents as sensitivity and dysfunction of our muscles, joints, and nerves. In PCS this is usually to the upper-most tissues at the top of our neck and base of our skull. Many of these tissue issues can be helped by hands-on treatment, but often times specific retraining is necessary for them to fully heal or be fixed.



Common signs and symptoms:

- Neck pain, jaw pain
- Headaches
- Dizziness
- Balance problems
- Light sensitivity
- Feeling as if in a "fog"

Common experiences:

- Chronic neck pain, jaw pain, or headaches that is not responding so "usual" neck treatments or exercises
- Feeling like your head is heavy, neck is always tight, jaw is always tight or clenching. Tightness comes on easy after physical activity
- Poor body awareness in your neck posture - noticing or others commenting your head is always sideways

Diagnosed by:

- Neck, head, and jaw - specific testing: range of motion, palpation, strength, endurance, muscle control, joint position-sense testing, etc.

Treatment:

- Treatment is guided by symptoms, exam findings, and symptom reduction priorities
- Can include: hands on treatment to joints, muscles, and superficial nerves, home exercises to improve strength, mobility, muscle control, joint-position sense, etc.