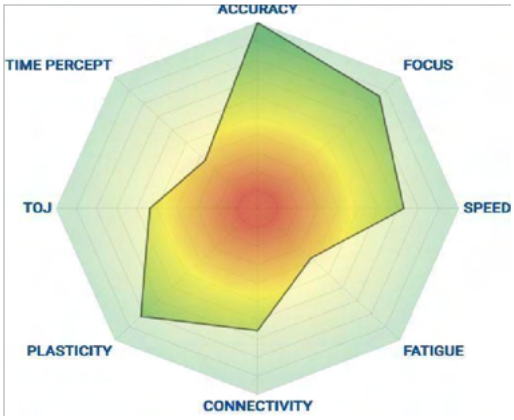
CAP Brain Repair Protocol and Brain Plan for Clinics

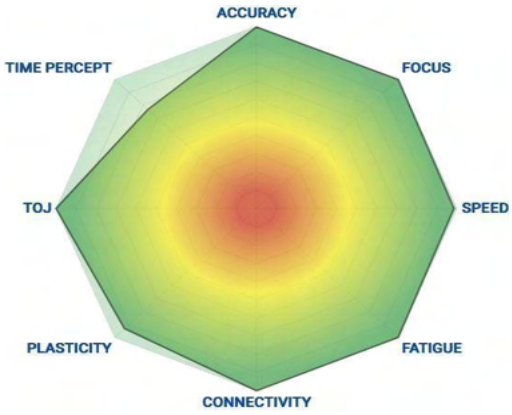
The CAP Brain Repair Protocol program (CAP Protocol) is a fully integrated system that provides a blueprint for clinicians to identify the optimal treatment strategies for their patients. The CAP Protocol incorporates highly effective diagnostics, treatments, online education and a cloud-based management system.

The Symptom Tree gathers pertinent physiological data, genetic indicators, injury history along with what symptoms the patient is experiencing and compares that to a functional communication map of their brain. Their physiological state, such as insulin resistance or migraines and, how their concussion symptoms relate to the map, play a large role in promoting brain regeneration or, hindering it.

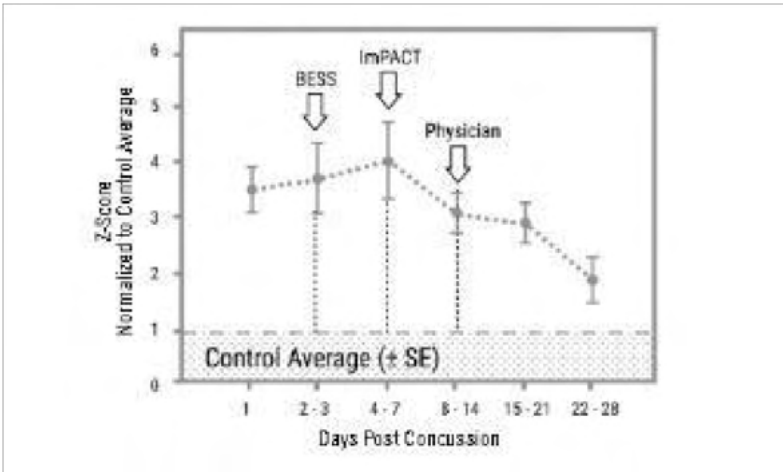
Unlike an anatomical imaging map such as an MRI, the communication map is generated using a sensory motor testing device – Brain Gauge, which identifies how different cognitive spheres are interacting in terms of excitatory and inhibitory neural pathways. The sensitivity and accuracy of this test is unmatched by any other including prohibitively expensive laboratory eye tracking tests.

Brain Gauge sensorimotor testing has the unique ability to deliver precise stimulus to exact locations within the brain (without conscious involvement from the patient), and measure how the brain processes these stimuli. The functional brain maps below show the cognitive performance before the CAPcare Plan was implemented and after.





The CAPcare Plan is automatically generated for the clinician and is based on the patients' individual test results. A wide range of treatments may be recommended such as ocular motor training, manual therapy, vestibular training, HBOT, nutrition, diet, lifestyle, photo biomodulation and/or other highly effective modalities of treatment.

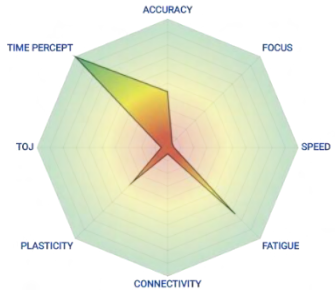


Return to Sport and Work Protocol

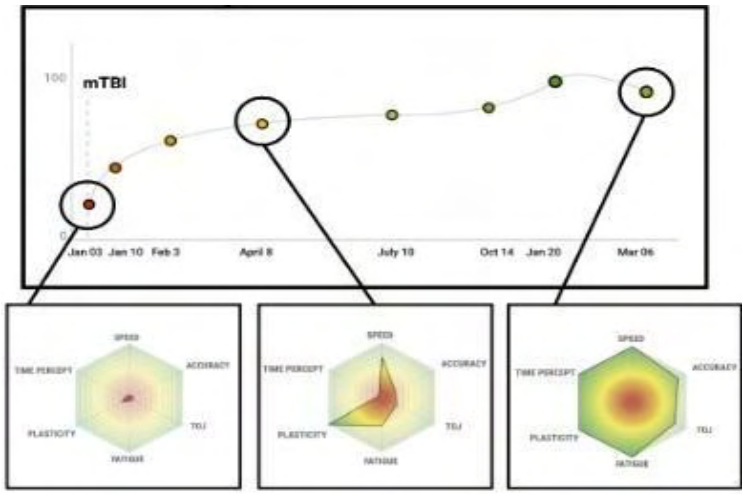
Brain Gauge was developed in conjunction with the Office of U.S. Naval Research and is supported by over 70 published papers.

Brain Gauge measures deficits after concussed patients are cleared by other tests and physicians.

One example of an athlete who came to us after she was given the green light to return to sport. She didn't feel she was ready. She was right!

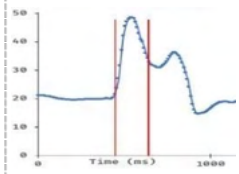
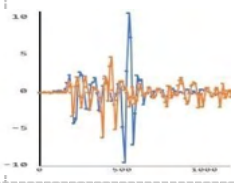
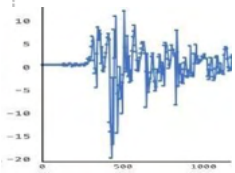


We monitor and track brain health history.
Partially filled radar plots indicate poor performance while filled radar plots indicate strong performance.



Testing neck function is the final test before an athlete is given the green light to return to sport or a patient to return to work. The RAM technology has been clinically validated by the Canadian Society of Mechanical Engineering to assess concussion risk simulating an actual sport impact.

Example RAM Report for a Concussed Athlete Patient

PHASE	OUTPUT	METRIC INSIGHTS	RESULTS (Test force 900N)	SAFETY STANDARD GOAL (Test force 1500N)
ACCELERATION		**Reaction Speed** – Length of time to respond	150 milliseconds	<200 milliseconds
		Reflex Arc – Degree of head motion	10 degrees	<10 degrees
IMPACT		**Eccentric Control** - Ratio between head to chest acceleration	60%	<20%
		Rotational Kinematics – Degree of rotation	15 degrees	<15 degrees
RECOIL		**Strength Deficit** – Neck strength recovery	350N=10% Deficit	0 Deficit

Once the patient is asymptomatic, they are RAM tested for possible neck dysfunction. If they are not ready to return neck strength training and therapy is recommended in addition to other neck screening or treatment at the clinicians' discretion, followed by retesting. The CAP Return to Sport and Work Protocol ensures patients are fit both neurologically and physiologically before they are given the green light to return.

For the athlete population, we believe the CAP Return to Sport Protocol will dramatically reduce secondary impact syndrome and give clinicians, coaches, athletes, parents and all stakeholders piece of mind that the athlete is ready to return.