What is Millennium Health Centers?

The Millennium Health Centers, Inc. (**MHC**) is an intellectual consortium of professional healthcare providers that focus on the mental and cognitive health of individuals who have sustained either a traumatic or non-traumatic injury to their body, brain, or both.

A traumatic injury usually involves a physical component such as in an assault, motor vehicle accident, falls, contact sports, an explosive blast wave, and even from heading a ball. Traditionally, in order for these to be considered as a traumatic brain injury (**TBI**), there needs to be loss of consciousness, retrograde amnesia, disorientation, and even a headache, to which we do not agree since the majority of our cases suffer from multiple micro-traumas and not Mild or Moderate TBI. Unfortunately, these cases failing the Mild TBI criteria are frequently placed in the post-traumatic stress disorder (**PTSD**) classification and treated with polypharmacy[1].

A non-traumatic injury usually does not have a physical component such as prolonged stress, medication reactions, allergies, autoimmune disease, post-surgery, certain large bone fractures, dysbiosis, leaky gut, gastric disorders with hyperacidity, GERD, and ulcers.

These two distinct groupings of injuries have a common central mechanism where they both can initiate inflammation in the brain creating the foundation of cognitive and neuropsychiatric changes that are labeled as psychiatric illnesses[2].

Sustaining either a traumatic or non-traumatic injury activates cells of our immune system to release pro-inflammatory chemicals called “cytokines”, which are endowed with processes responsibility to protection the injured area from infections and initiate repair mechanisms.

The Millennium Health Centers focus on the causation and not the symptoms!

The MHC has spent the past 30 years working with clients from both the civilian and military communities who have sustained a traumatic brain injury. Common to both communities has been the standardized approach to treating mental health issues arising from their injuries with a pharmacological approach. The operational approach has been to reduce or eliminate the disruptive symptoms with one or more medications. Frequently this has been seen to include a double-digit number of medications that continue to fail at relieving symptoms and improving the individual’s quality of life.

The Millennium’s approach is based upon the sciences that identify neuroinflammation, initiated by trauma, as the root-cause for developing psychiatric illnesses. The presence of either acute or chronic neuroinflammation can cause disruption of biochemical pathways needed to generate and

maintain a good mental health status. Loss of these pathways are at the root cause for insomnia, depression, and fatigue[3]. In an acute condition, the injury occurs, the body responds with an increased release of pro-inflammatory cytokines, these protect the damaged area and subsequently are replaced by anti-inflammatory cytokines that initiate the repair mechanism while reducing the inflammation. In a chronic condition, there is prolonged production and release of pro-inflammatory cytokines which by themselves create a chronic state of inflammation creating more disarray and damage to reparative systems. In fact, elevated levels of pro-inflammatory cytokines have been measured at 17 years post injury[4].

The Millennium's Biomarker panel and Neuroendocrine Disruption

Post microtrauma, chronic stress, viral infections, concussions, and mild TBI to name a few, create inflammation in the brain. This inflammation affects the brain's ability to produce the hormone signals that turns on pregnenolone, DHEA, testosterone, estrogen, progesterone, and 30+ other steroid hormones as well as Thyroid hormones and the intricate growth hormone system that regulate both brain and bodily functions, including fertility[5].

It would be so easy to use the presence of pro-inflammatory cytokines (IL-1, IL-1B, IL-6, and TNF-alpha) as key biomarkers of brain trauma if not for the fact that they are not produced exclusively in the brain. Presently, millions of dollars are being spent annually looking for a unique biomarker that can tell us the extent of brain trauma as well as predict outcome[6]. Unfortunately, none has been found to meet the rigor for qualifying.

The Millennium started developing a serum blood test in 2004, that looked for adverse changes in levels of neurosteroids in the brain and neuroactive steroids produced in the body that would suggest disruption of normal hormonal production due to inflammation. Simultaneously, the panel looks at a number of hormone and non-hormone markers that can influence the production of pro-inflammatory cytokines and free radicals. This became the Millennium's biomarker panel (MBP28) which consists of 28 direct and indirect (surrogate) measurements of biochemical and neuroendocrine integrity.

The interpretation of the MBP28 is provided by the software application, The Millennium Office Laboratory Assistant (**MOA**). This is an AI tool which analyses each laboratory result against the other tests looking for not only highs and lows, but relationships between different hormonal groups and medical conditions. Additionally, the patient's medication is surveyed looking for those medications that are known to interfere with any of the MBP28 test results. This will help to avoid any over or under treatments. (https://MillenniumAPP.ai)

The final report generated by the MOA contains the interpretation of the MBP28 results which are used to generate a predictive recommendation for treatment. Your treating private care provider (PCP) can use these results and suggestions to provide a comprehensive treatment protocol that utilizes both hormone replacement or embellishment therapies as well as recommendations for treating the underlying neuroinflammation that is associated with all forms of trauma.

Treatment based upon results.

The goal of treatment should be to return all hormones (neurosteroids and neuroactive steroids) to normal levels which is considered by the Millennium's 30+ years of experience to be at the 50th – 75th% of the laboratory's standard range. Adjustments to this generalization will be based upon your PCP's practice philosophy and experience.

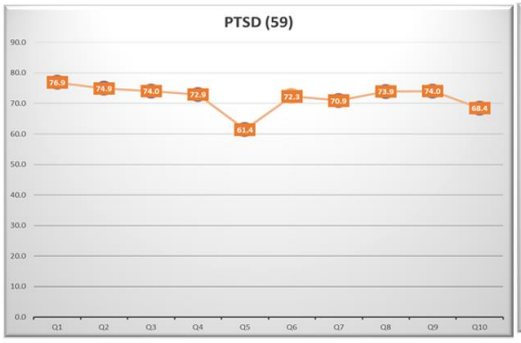
The Millennium Health Centers usually begins with a set of protocols used to re-establish one's own Testosterone and Growth Hormone production before using either hormone. The rationale behind this is the fact that neuroinflammation can shut down your own production of these hormones. It then becomes Millennium's responsibility to their clients to first try and reconstitute the client's own ability to produce hormones. Otherwise, pre-mature use of hormones can shut down any further production of these hormones making the individual reliant on replacement for the remainder of their life.

After nearly 16 years of development and clinical testing, the Millennium's nutraceutical approach to addressing the neuroinflammation precipitated by trauma has been very successful. Each of the key components to our flagship product – Brain Rescue 3, has had years of testing within military communities. The launch of Brain Rescue 3 was supported by the outcome of a pilot study with a group of Marines out of Camp Pendleton in 2020 (www.tbihelpnow.org/the-science). The results of this study became the foundation for the Phase 2 Protocol that uses a combination of Brain Rescue 3, Brain Care 2, Vitamin D, DHEA, and Pregnenolone. Important to this protocol is that it is not a life-long program since we have seen results in as early as 90 days (USMC program).

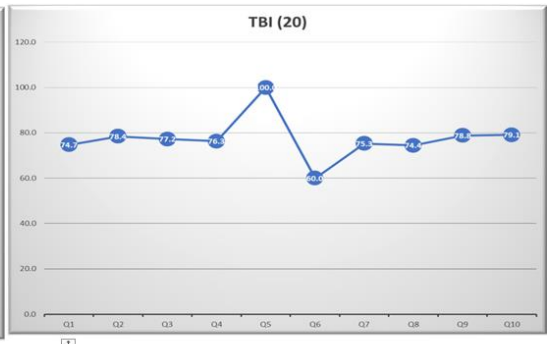
Unfortunately, there is no way to make specific statements as to how long and to what level anyone will improve. We know that Alcohol and drugs, stress, and certain medications can interfere with optimal outcomes. Therefore, we highly recommend that you seek a physician that has received the Millennium's training before starting on any protocol.

The Millennium's Treatment Outcomes

Since 2018, the Millennium has been compiling our records on the outcome of our assessment and treatment programs. The last report was March 2023, showing that our veterans with TBI improved by 77% within a year (2022) and those with the additional diagnosis of PTSD (basically a missed TBI) improved by 72% with that same year.



Q1	Depression	76.9%	Q6	Obsessive Compulsive	72.3%
Q2	Anxiety	74.9%	Q7	Poor short-term memory	70.9%
Q3	Anger	74.0%	Q8	Poor long-term memory	73.9%
Q4	Irritability	72.8%	Q9	Insomnia	74.0%
Q5	Bi-polar	61.4%	Q10	Migraines	68.4%



Q1	Depression	74.7%	Q6	Obsessive Compulsive	60.0%
Q2	Anxiety	78.4%	Q7	Poor short-term memory	75.3%
Q3	Anger	77.2%	Q8	Poor long-term memory	74.4%
Q4	Irritability	76.3%	Q9	Insomnia	78.8%
Q5	Bi-polar	100%	Q10	Migraines	79.1%

Request Enrollment in the full Millennium Program with labs included: **Request**

Obtain the Phase 2 protocol: **Order**

References

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