

Mazzarella Whiplash Traumatology and Treatment Guidelines 2008-2022 Best Practice Clinical Practice Guidelines.

The Mazzarella guidelines for the treatment of Whiplash and Whiplash Related Disorders are research bases and clinically backed for validity. I believe that it is in the best interest of all healthcare professions dealing with the diagnosis and treatment of whiplash and whiplash related disorders to adopt the Mazzarella guidelines for management of Whiplash. This will allow for improved treatment management while helping to identify excessive or unnecessary care and allow for comparisons of different treatment methods by different professions to be fair and equitable during peer review.

We urge healthcare professionals to make efforts to adopt these guidelines through their local societies, state associations, state boards of examiners, and national associations.

Mazzarella Whiplash Related Injury Guideline

WRI Grade	Description	Treatment Duration	Acceptable Treatment
Grade 1	Minimal Pain: No limitation of ROM. No Muscle Spasm, No secondary Findings.	4-8 visits, < 2 weeks	1-2*
Grade 2	Noted Pain: Limitation of ROM and Noted Muscle Spasm. No secondary findings.	8-12 visits, <2- 4 weeks	1-5*
Grade 3	Noted Pain, Decreased ROM, Muscle Spasm and Ligamentous Instability	24-48 visits, <12-24 weeks	2-6****
Grade 4	Noted Pain, Decreased ROM, Muscle Spasm and Neurological Symptoms	36-60 visits, < 15-28 weeks	1-6*
Grade 5	Noted Pain, Decreased ROM, Muscle Spasm and Neurological Signs	42-72 visits, < 18-32 weeks	1-6*****
Grade 6	Noted Pain, Decreased ROM, Muscle Spasm, Neurological Signs, Disc Derangement or Fracture.	Case Dependent to MMI	1-6*
Grade 7	Surgical Intervention Required	Case Dependent to MMI	1-6**
Special Conditions	Neuropathy, Concussion/mTBI, Vestibular Dysfunction, Chronic Pain.	See requirements below.	

- Treatment recommendations are based on uninterrupted care provided by a Whiplash Traumatology trained doctor with patient compliance. This is required for guidelines to apply.
- Secondary Findings: Neurological findings, ligamentous instability, radiculopathy, or fracture
- MMI: Maximal Medical Improvement from care
- Guidelines encompass the following treatments:
 - Chiropractic (1)
 - Physiotherapy (Physical Therapy) (2)
 - Acupuncture (3)

- Modalities (4)
- Massage Therapy (5)
- Assistive Devices (6).
- * All individual cases will vary, and healthcare provider must use professional judgment on the safety and need of each therapy listed. These are recommendations are based on what can help, not necessary what is required to help.
- ** **Treatment will commence once release is authorized from Surgeon. Surgeon will dictate initial course of care.**
- *** **All Treatment Durations are suggestions based on research and clinical experience. These suggestions can vary depending on involved risk factors, patients past medical history, and social and psychological relevant issues.**
- **** **Treatment with Ligamentous instability should be assessed through lateral stress view radiographs or videofluoroscopy. Treatment should continue until no loss of George's Line or Spinolaminar Line are found during stress view special testing.**

For All Grades, and All Whiplash Injuries. Requirements for Neuropathies, Concussion/mTBI, Vestibular Dysfunction and Chronic Pain.

- ***** **Treatment of neurological Signs should be assessed with sEMG, EMG, qEEG, fMRI, SPECT, PET, rCGM or standing MRI.**
- **For all Grades: If Neuropathy is present and found on sEMG, treatment should continue until the muscle and all associated muscles innervated by the same segmental level have a resting state of no more than 10 microvolts.**
 - **Gold Standard for Neuropathy Testing is sEMG**
- **For all Grades: If concussion/mTBI is present treatment should continue until alpha brain waves have normalized, wherein Alpha waves with eyes closed are at least 3 times higher than with eyes open.**
 - **Gold Standard for Concussion Testing is qEEG**
- **For all Grades: If Vestibular Dysfunction is present, treatment should continue until Posturography shows near normal sway patterns between Romberg's position, Romberg's Test, and Sharpened Romberg's.**
 - **Gold Standard for Vestibular Dysfunction is Posturography Testing**
- **For all Grades: if Chronic Pain is present, treatment should continue until the following:**
 - **Digital Algometry testing over the spinal facet joint capsules can withstand at least 20 newtons of force without reproduction of pain.**
 - **Per and Post Examination Romberg's Testing is equal.**
 - **Specific Nerve Fiber Testing reproduces no pain response.**
 - **Gold Standard for Chronic Pain Testing: qEEG**

Guidelines Published in Post Graduate Medical and Chiropractic Education Program.

- **2008:**
 - **CME Accreditation: University at Buffalo School of Medicine and Biomedical Sciences.**
 - **American Academy of Family Physician Credit: American Academy of Family Physician's**
 - **CCE Accreditation: National University of Health Sciences**
 - **Endorsement: American Chiropractic Association.**
- **2021- Present:**
 - **CME Accreditation: Michigan State University School of Medicine and Osteopathic Medicine.**
 - **CCE Accreditation: NorthEast College of Health Sciences**
 - **Chiropractic Accreditation: European Chiropractors' Union**

- **Academic Endorsement: McMasters Medical School of Health Sciences.**

Thank you,
Dr. Jason Mazzearella, DC

Doctor of Chiropractic
Director North American Spine Institute
Medical Advisor Crawford and Company Canada
Elected Board Member – Canadian Institute for the Relief of Pain and Disability 2013
Elected Medical Board Peer Review – Journal of Anesthesia and Pain Management 2019
International Post Graduate Lecturer - Medical curriculum on Crash Forensics, Whiplash Traumatology and the Biopsychosocial Model of Pain
International Post Graduate Lecturer - Chiropractic curriculum on Crash Forensics, Whiplash Traumatology and the Biopsychosocial Model of Pain
Graduate Lecturer Accident Reconstructionist - Occupant Kinematics, Injury Biomechanics and Crash Forensics
Diplomate American Academy of Integrative Pain Management 2018
Diplomate American Academy of Pain Management 2011 and 2016
Diplomate Canadian Academy of Pain Management 2011
Diplomate American Academy of Experts in Traumatic Stress 2010
Fellowship International Academy of Medical Acupuncture 2006
Registered Acupuncturist CTCMPAO 2014
Certification Motor Vehicle Trauma 2011
Certification Pain Management 2010
Certification Acute Traumatic Stress Management 2011
Certification Motor Vehicle Crash – Forensics Risk Analysis 2006
Certification Brain Injury 2009
Certificate Whiplash and Brain Traumatology 2005
Advanced Certificate of Competency Whiplash and Brain Traumatology 2011
NBCE Certified Physiotherapy Competency 2005
BSc. Kinesiology Movement Science 2001
BSc. Health Policy and Administration 2001
Crash Data Retrieval System Operators (Technician) Certification 2012
Crash Data Analysis and Application Certification 2013
Certification Accident Investigation 2011
Certification Accident Investigation and Reconstruction Level 2 2012
Certification Accident Investigation and Reconstruction Level 3 2013