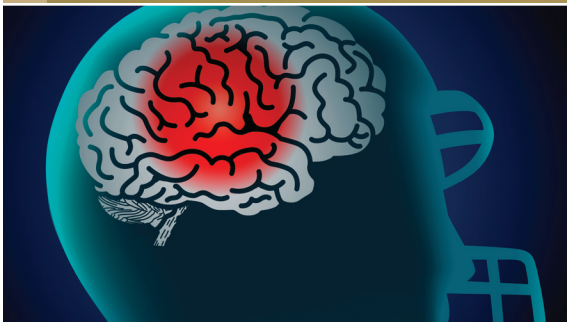


Volume 28

Number 3

Fall 2017

THE JOURNAL OF  
**Legal Nurse  
Consulting**



BRAIN INJURY

AALNC

AMERICAN ASSOCIATION OF  
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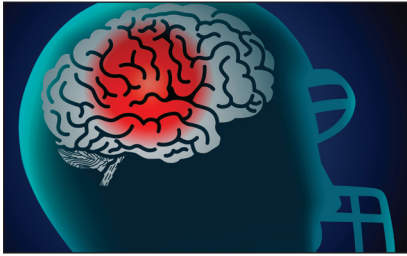
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# AALNC

AMERICAN ASSOCIATION OF  
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## PURPOSE

The purpose of The Journal is to promote legal nurse consulting within the medicallegal community; to provide novice and experienced legal nurse consultants (LNCs) with a quality professional publication; and to teach and inform LNCs about clinical practice, current legal issues, and professional development.

## MANUSCRIPT SUBMISSION

The Journal accepts original articles, case studies, letters, and research. Query letters are welcomed but not required. Material must be original and never published before. A manuscript should be submitted with the understanding that it is not being sent to any other journal simultaneously. Manuscripts should be addressed to [JLNC@aalnc.org](mailto:JLNC@aalnc.org). Please see the next page for Information for Authors before submitting.

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*The Journal of Legal Nurse Consulting* (JLNC), a refereed publication, is the official journal of the American Association of Legal Nurse Consultants (AALNC). We invite interested nurses and allied professionals to submit article queries or manuscripts that educate and inform our readership about current practice methods, professional development, and the promotion of legal nurse consulting within the medical-legal community. Manuscript submissions are peer-reviewed by professional LNCs with diverse professional backgrounds. The JLNC follows the ethical guidelines of COPE, the Committee on Publication Ethics, which may be reviewed at: <http://publicationethics.org/resources/code-conduct>.

We particularly encourage first-time authors to submit manuscripts. The editor will provide writing and conceptual assistance as needed. Please follow this checklist for articles submitted for consideration.

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- Manuscript length: 1500 – 4000 words
- Use Word® format only (.doc or .docx)
- Submit only original manuscript not under consideration by other publications
- Put title and page number in a header on each page (using the Header feature in Word)
- Place author name, contact information, and article title on a separate title page, so author name can be blinded for peer review
- Text: Use APA style (Publication Manual of the American Psychological Association, 6th edition) (<https://owl.english.purdue.edu/owl/resource/560/01/>)
- Legal citations: Use The Bluebook: A Uniform System of Citation (15th ed.), Cambridge, MA: The Harvard Law Review Association
- Live links are encouraged. Please include the full URL for each. Be careful that any automatic formatting does not break links and that they are all fully functional.
- Note current retrieval date for all online references.
- Include a 100-word abstract and keywords on the first page
- Submit your article as an email attachment, with document title articlename.doc, e.g., wheelchairs.doc

## INSTRUCTIONS FOR ART, FIGURES, TABLES, LINKS

- All photos, figures, and artwork should be in JPG or PDF format (JPG preferred for photos). Line art should have a minimum resolution of 1000 dpi, halftone art (photos) a minimum of 300 dpi, and combination art (line/tone) a minimum of 500 dpi.
- Each table, figure, photo, or art should be submitted as a separate file attachment, labeled to match its reference in text, with credits if needed (e.g., Table 1, Common nursing diagnoses in SCI; Figure 3, Time to endpoints by intervention, American Cancer Society, 2003)

## INSTRUCTIONS FOR PERMISSIONS

The author must accompany the submission with written release from:

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Acceptance will be based on the importance of the material for the audience and the quality of the material, and cannot be guaranteed. All accepted manuscripts are subject to editing, which may involve only minor changes of grammar, punctuation, paragraphing, etc. However, some editing may involve condensing or restructuring the narrative. Authors will be notified of extensive editing. Authors will approve the final revision for submission.

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**Debbie Pritts**  
RN, LNCC

President, AALNC

## A Message from the President

Last week I was contacted by our *JLNC* editor, Wendie, reminding me, “It’s that time again—the President’s Note for the *JLNC* is due.” I’ve been serving as president for three months now and I think, where has the time gone? What have I been up to?

Of course there’s work; I always have work, and I’m thankful for that.

I have school, although I’ll be the first to admit I haven’t put as much time into it as I should have.

There’s my family. I love spending time with my family. I’m sure you all know that if you’re the nurse in your family, you get frequent calls when someone needs guidance, support, comfort, advice, and, of course, physical care. And then there are just those special moments that come with being a wife, mother, daughter, sister, aunt, or friend.

Then there’s my volunteering as AALNC President. I knew when I took this on that it would be a huge time commitment. It’s been far more than just board meetings and fiduciary obligations: it’s offering a fresh perspective while organizing or supervising projects, consulting on issues, searching for creative ways to increase membership, and conferring with other committee members and past board members.

I also respond to individuals who are interested in learning about legal nurse consulting, how to get started, and how to grow in the role. While I always say there are a number of ways to become known, I encourage them all to network, become involved with the AALNC by volunteering on a committee, writing for the *Journal*, or sharing their knowledge in webinars.

I’m frequently asked, “How do you have time to handle all that?” And the answer is ... I’m not really sure. I always feel behind a step or two, or more, on some commitments. We all know the feeling. It’s difficult to juggle many balls all the time, but the benefits and rewards are great.

I recently read somewhere that it’s almost selfish to keep your experience, ideas, or expertise to yourself if it could benefit others. We really hope you see the value and interest in sharing your experiences. Remember this, wishfully attributed to Oscar Wilde: “Be yourself. Everyone else is already taken.”

To me, that means to know your importance and recognize how you can use it to grow personally. Work through your fear of not being good enough by sharing and expressing yourself. Live your life with passion in the way you speak or act and be learn to be gracious with the recognition you receive for sharing the knowledge and talent with others.

I never thought I’d be serving in this role for many of the same reasons. I want people who feel they can’t offer something of value, or think they don’t have enough knowledge to share, to look at themselves and then use that talent and knowledge to help others and also grow themselves.

I have been given a tremendous opportunity to grow personally and professionally, to give back, and be more involved as a leader in our profession and perhaps even effect some change. So can you. Think about what you want from your career, what possible benefits you desire, how you will pursue them — and what you have to offer others. And then take that first step.

Sincerely,

Debbie Pritts, RN, LNCC

## Editor's Note



**B**rain injury has been in the news quite a bit lately, most recently a study by Mez, Daneshevar, Kiernan, et al. (2017) finding that 177 of 202 deceased football players (at all levels, from pre-high school through adulthood) and 110 of 111 brains of deceased NFL players were neuropathologically diagnosed with cumulative traumatic encephalopathy. The study also looked at premortem behavioral/mood and cognitive symptoms and dementia to correlate with the pathology findings; the findings were quite sobering. The original article has been widely reported, and can be found at the URL listed below.

As LNCs, we're often asked to opine on whether standards of care for prevention, diagnosis, and treatment have been met. Any fast-moving field makes this a challenge. This is especially true when there is money to be made from gadgetry touted to address or prevent a potentially serious condition like brain injury. For example, a Google search on "helmets to prevent concussion" returns more than 700,000 hits with titles like, "Flexible football helmet absorbs hits like a car bumper, could put an end to concussion," and, "Could this helmet save football from the sport's concussion problem?" However, as they say on TV, upon further review, no study to date has given the reassuring proof the public, professional and amateur teams, and parents seek. A 2014 NIH paper from the Boston University School of Medicine, home of the Center for the Study of Traumatic Encephalopathy (CSTE) found no conclusive evidence that any specific helmet or mouthguard reduces frequency or severity of concussion in contact sport (Daneshevar et al., 2014). If people persist in putting their brains at risk through sports, perhaps putting efforts into better recognition and management might be more fruitful; this would pay dividends for the accidentally-injured as well.

Recognition is slowly improving. However, treatment is a moving target: New research challenges the traditional advice to rest and restrict activities after concussion. Even diagnostic terminology is changing: the old classification of "mild, moderate, and severe" based on the old Glasgow Coma Scale and length of loss of consciousness never was very good at predicting outcomes or suggesting definitive treatment regimens, and is slowly disappearing in favor of more functionally-based descriptive language. The Rancho Los Amigos 1-10 scale looking at functional capacity and behavior has good inter-rater reliability, but those seeking derivative standards of care will be disappointed. The old saw of, "If you've seen one brain injury.... you've seen one brain injury" is finally getting its due.

We hope this issue will give your brains something to think about and work with. As always, our authors generously provide their contact information for your reference.

As a final note, we received a late submission on an unrelated topic. As we discussed whether to include it, a recurrent theme emerged: Why not? It might be good to include a random topic as long as it's very targeted to LNCs. Let us know what you think about doing this more often.

Sincerely,

*Wendie A. Howland*

Wendie A. Howland

[whowland@howlandhealthconsulting.com](mailto:whowland@howlandhealthconsulting.com)



**Wendie Howland**  
MN, RN-BC, CRRN,  
CNLCP, LNCC

*Editor, JLNC*

1. Daneshevar DH, Baugh CM, Nowinski CJ et al. (2014) Helmets and mouth guards: the role of personal equipment in preventing sport-related concussions. *Clin Sports Med.* 2011 January ; 30(1): 145-163. doi:10.1016/j.csm.2010.09.006.
2. Mez J, Daneshevar DH, and Kiernan PT (2017) Clinicopathological evaluation of chronic traumatic encephalopathy in players of American football. *JAMA.* 2017;318(4):360-370. doi:10.1001/jama.2017.8334 Retrieved from <http://jamanetwork.com/journals/jama/fullarticle/2645104?alert=17/256/2017>

## INTERVENTIONAL RADIOLOGY

*I just wanted to give two thumbs up for the great AALNC Journal articles in this edition. As always I learned a great deal. The article on IR procedures spurred a thoughtful comment that I needed to include in a current case analysis!*

Great job,  
Kathy Ferrell, BS RN LNCC

*I have been doing some research on a case I'm working on and was exploring the JLNC. I wanted to share that the Journal is free to everyone--you do not need to be a member to access the publication.*

*Even better is the new search feature--you can search the archives with a keyword. I was able to get some information I needed in just a few minutes!*

*Just wanted to make everyone aware of this....*

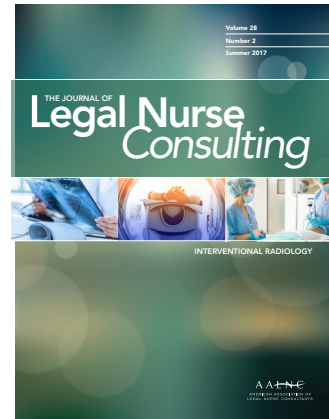
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## UPDATE: EDITOR'S NOTE, JUNE 2017

The co-owner and head pharmacist of the New England Compounding Center, Barry J. Cadden, was sentenced to nine years in prison for fraud and racketeering for his role in manufacturing practices that resulted in at least 60 deaths from fungal meningitis and many hundreds of serious illnesses from contaminated steroids for injection. As reported by the Boston Globe (June 26, 2017),

“I will die from this,” Rachele Shuff, one meningitis sufferer, testified. She said she was hoping to live two more years. A man who lost his mother because of the medicines, said Cadden “got away with murder.”

A meningitis survivor asked a judge to give Cadden the maximum sentence “or give him two shots of his own steroid.” Another said she endured pain so terrible she prayed for death.



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# Test Your Case Screening Skills

## CASE #1

Timothy presented to General ED 6/3/11 by ambulance with abdominal pain (pain level 4 or 5 out of 10). He had been waiting 6-8 hours to be treated (no pain meds) and became belligerent and security escorted him out. The next morning his pain level was thru the roof so he called another ambulance and was taken to Mercy Hospital. Had surgery for a ruptured appendix. He is in the process of recovering. Is disabled and on SSI. Has comprehension problems, mental health issues, depression.

### Test Your Case Screening Skills

You decide: reject, or investigate?

## CASE #2

Had a surgery to remove her appendix - June 2009- Done by Dr. Hewitt. Dr. Hewitt bruised her bladder and severed artery (has op report). She has been sick ever since the June 2009 surgery. PCP - Dr. Ryan sent her for 3 or so CT scans- medical group did studies and found infection in body- found abscess from a piece of the appendix that was left inside her (found about a week and a half ago). Thurs has to go for another imaging study- not sure what-they are going to put dye on her body and she had to do an enema. She is on pain pills- Dilaudid and oral antibiotics they are talking about surgery. She has been sick for two years. She was admitted to hospital about 1.5-2 wks ago for 5 days or so. She didn't have much information for me. Says that the pain pills have her all over the place. She called Delaney Law Firm but they had a conflict and referred her here.

Check your answers on [page 48](#).



# The NFL Concussion Settlement, Traumatic Brain Injury, and CTE: Fact, Fiction, and Spin Doctoring

*Edward S. Stone, Esq.*

**C**hronic traumatic encephalopathy (CTE) is the industrial disease of football. It is what led Junior Seau to take his life with a bullet to the chest so his brain would remain intact for doctors to study and it is what has led to the remarkable increase in focus on the health effects of concussions in football and other sports. But CTE is not covered by the NFL concussion settlement and it won't be anytime soon.

The NFL has achieved an enormous pocketbook victory by excluding the degenerative brain disease CTE from the settlement but it will be a short lived victory at best. The symptoms of CTE are not limited to memory loss. They also include difficulty controlling impulsive or erratic behavior; impaired judgement; and behavioral disturbances including aggression, depression, and difficulty with balance. These are the symptoms that many believe led to

the suicide deaths of NFL icon Seau, Dave Duerson of the Chicago Bears, and Andre Waters of the Philadelphia Eagles. CTE also led to the tragic death of professional wrestler Chris Benoit, who committed suicide after brutally murdering his own wife and son. CTE will continue to wreak havoc and cause needless suffering unless the NFL decides to lead by example and really does something about it.

The justification for excluding CTE from the NFL settlement is that some of the neurocognitive ailments associated with CTE are eligible for awards. For example, the settlement covers mild and moderate dementia (defined as “Dementia 1.5 and 2.0” by the settlement) and former NFL players might get a monetary award provided these players have a requisite qualifying diagnosis. But until former NFL players apply and receive their awards, or are denied monetary compensation in favor of educational pamphlets and more medication, the type of impairments that will and will not compensate players for their traumatic brain injuries will remain a mystery.

Since the settlement purports to adjudicate forever the claims of cognitive impairments suffered by former NFL players due to repeated head trauma, including concussions, you would think the process would be simple and straight forward. It is not. Former NFL players that suffered clearly documented concussion-related cognitive impairments should have a simple path to receiving a monetary award through the settlement agreement process. However, as described above, the settlement only makes a monetary award available where a former NFL player receives a qualifying diagnosis involving certain, very narrow and specific medical conditions. While these medical conditions - ALS, Alzheimer's, Dementia 1.5, Dementia 2.0, and Parkinson's - are the type of diseases that afflict players with concussion-related cognitive impairments, they are by no means the only serious medical conditions related to those concussions. The settlement failed to establish a broader and more representative class of qualifying diagnoses to fit more former NFL players diagnosed

*Post-traumatic brain syndrome (PTBS), for example, carries symptoms that are similar to dementia and Parkinson's, and neurological impacts that are virtually the same.*

with serious cognitive impairments caused by concussions.

Post-traumatic brain syndrome (PTBS), for example, carries symptoms that are similar to dementia and Parkinson's, and neurological impacts that are virtually the same. Medical research documents this similarity of symptoms. See, for example, the Medical News Today article discussing long-term effects of concussions, which noted that older athletes that suffered concussions experienced symptoms “similar to those of early Parkinson's disease - as well as memory and attention deficits.”<sup>1</sup> The settlement should therefore award the same level of compensation to former NFL players with post-traumatic brain syndrome, as it does to a former NFL player diagnosed with dementia.

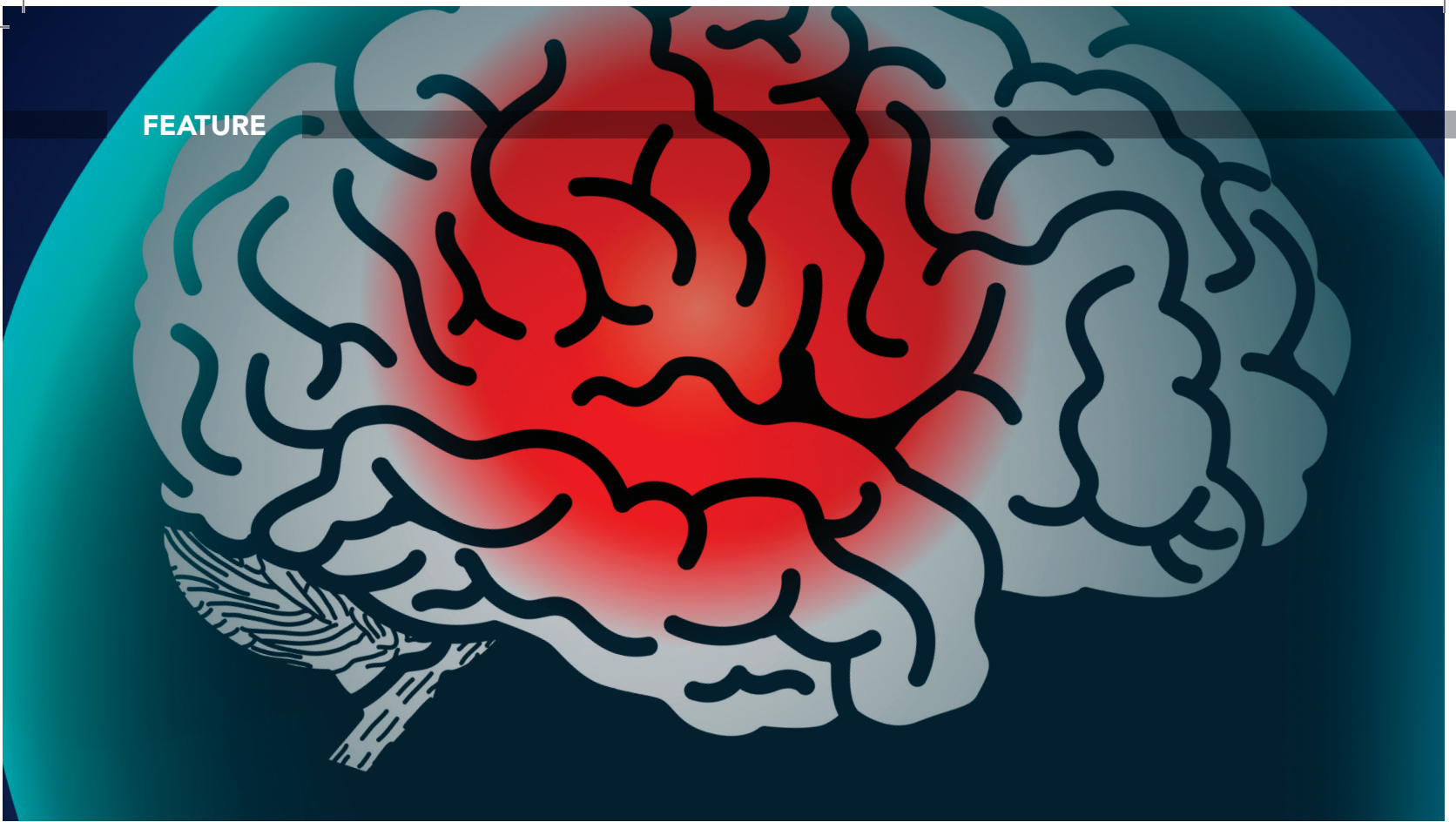
Players with documented findings from the defendant NFL provides another example of how the overly narrow qualifying diagnosis definition unfairly keeps cognitively impaired former NFL players from qualifying for a monetary award. The former NFL players involved in this settlement all suffered traumatic brain injuries (TBI) while playing in the NFL. These brain injuries now cause these players to suffer from persistent pain, trouble sleeping, or remembering basic things like the

names of their friends, or the street they live on. The resulting frustration leads to heightened anger, anxiety and depression. Examinations of these former NFL players via NFL-sponsored programs routinely finds extensive cognitive impairments that qualify the former NFL players for permanent disability. The symptoms that form the basis for this cognitive impairment-related disability cause these former NFL players tremendous suffering and loss of income due to a permanent inability to work. However, as the settlement is currently set up, players will receive no monetary award unless their symptoms also fit within the current qualifying diagnosis category. In other words, players who suffer from depression, anger management issues, loss of focus, suicidal tendencies – all known symptoms of CTE will get nothing unless they also fit into the Dementia 1.5 or 2.0 buckets. The settlement also excludes many known complications from concussions, including seizure disorders, sleep disorders, neuroendocrine disorders, including thyroid, and pituitary dysfunction, psychiatric disorders, including obsessive-compulsive, anxiety, psychosis, mood disorders and major depression.<sup>2</sup>

The settlement also imposes offsets that unfairly limit a claimant's financial

1. Nordqvist, Joseph, “Concussions Cause Long-Term Effects Lasting Decades” found at: [www.medicalnewstoday.com/articles/256518.php](http://www.medicalnewstoday.com/articles/256518.php).

2. See Amicus Brief filed by Brain Injury Association of America in NFL Concussion lawsuit at: <http://www.biausa.org/announcements/biaa-files-amicus-brief-with-court-of-appeals-for-nfl-case>.



award without any real justification. For example, the proposed Settlement currently reduces a claimant's award by 75% if the NFL can point to a non-football-related TBI or stroke.<sup>3</sup> The NFL does not bear the burden of proving that the stroke or non-football related TBI was severe enough to account for any of a former player's impairment, let alone 75% of the retired player's cognitive injuries. The NFL does not even need to prove that a stroke was unrelated to the TBI that the player sustained during his NFL career despite medical evidence that TBI can increase the risk that a former NFL player has a stroke.<sup>4</sup>

Given the clear evidence in the medical and scientific community regarding the devastating cognitive impairments

that former NFL players suffer as a result of numerous documented and undocumented TBI, and the evidence that such TBI could be a risk factor for stroke, the Settlement should have assumed, without further evidence, that any stroke or non-football-related TBI had no incremental effect on the player's cognitive impairments. There should be no reduction in percentage of a monetary award unless and until the NFL can produce credible evidence to the contrary.

In the case of a stroke, that evidence should include an independent evaluation that takes into account documentary or oral descriptions of the player's symptoms of cognitive impairment prior to the stroke. It should also factor in the likelihood that prior TBI

were connected to the stroke. The independent evaluator can then, much like in a worker's compensation case, balance the factors to determine whether, or to what extent, the monetary award should be offset based on the stroke at issue.

The same process could also be used in cases of non-football-related TBI. The independent evaluator could easily examine the documentary or oral descriptions of the player's symptoms of cognitive impairment prior to the incident and the severity of the historic TBI suffered by that player. The evaluator would then balance the severity of the non-football-related TBI with the football-related injuries to determine whether, or to what extent, the monetary award should be offset based on the TBI at issue.

3. NFL Concussion Settlement Agreement at § 6.7(b)(ii)-(iii).

4. See Burke et al., Traumatic Brain Injury May Be an Independent Risk Factor for Stroke, 81 *Neurology* 1 (2013) (attached as Exhibit 21 to Docket #6201).

5. Raji C, Merrill D, Barrio J, Omalu B, Small G (2016) Progressive focal gray matter volume loss in a former high school football player: a possible magnetic resonance imaging volumetric signature for chronic traumatic encephalopathy. *The American Journal of Geriatric Psychiatry*, Volume 24, Issue 10, Pages 784-790 (October, 2016).

6. See Altman M.D., Lawrence K. "The earliest signs of brain damage in athletes? Listen for them." *The New York Times*, May 29, 2017 found at <https://www.nytimes.com/2017/05/29/health/cte-brain-injuries-football.html>.

This is not just an empty exercise. The settlement will certainly lead to unjust and even absurd results. Imagine the former NFL player, wracked with a host of debilitating symptoms of cognitive impairment, who is involved in a minor car accident that leaves him feeling woozy for a couple of days. Back during his days in the NFL, this player would be out there playing the next Sunday. Post-settlement, if that player developed early onset dementia two years later, he could lose 75% of his monetary award on account of this minor TBI.

While there are hidden and glaring inequities built into the settlement, the fact that any case of CTE diagnosed after January 19, 2016 is completely excluded from the monetary award component shocks the conscience. Death from CTE was only covered for families of former players if the player died before April 22, 2015 and such player was diagnosed with CTE autopsy no later than 270 days from date of death. While this arbitrary and bizarre component of the settlement provided millions in payouts to certain high profile families, it does absolutely nothing for players whose brains are ravaged by CTE today and it arbitrarily denies all monetary benefits to families whose loved one with CTE dies in the future. The spin applied by the NFL successfully deflected attention away the fact that CTE put football related brain damage into the public eye in the first place and led to the film *Concussion* starring Will Smith which was released by Columbia Pictures in 2015.

While the NFL maintains that CTE can only be definitively diagnosed post-mortem, new studies suggest that this is no longer accurate. Bennet Omalu, the doctor credited with discovering CTE, and his colleagues have published a study that relied

*While the NFL maintains that CTE can only be definitively diagnosed post-mortem, new studies suggest that this is no longer accurate.*

on a chemical marker known as FDDNP and brain scans on living players. According to the study, the NFL players tested had elevated levels of FDDNP in the amygdala and subcortical regions of the brain that allowed Omalu to identify tau deposits in living patients similar to those he has found in autopsies that confirmed CTE post-mortem.<sup>5</sup>

The New York Times reports that a recent study by researchers at Arizona State University provides evidence that the signs of CTE might be found in a low-cost, noninvasive test tracking changes in conversational language. While this research is in its infancy, it is likely that before long neuroscientists will have a reliable way of detecting and diagnosing CTE in its earliest stages.<sup>6</sup>

## CONCLUSION

A settlement invariably represents a compromise and in the NFL concussion case, the NFL had a number of very strong legal arguments in its favor and there was a significant risk that the retired players would have lost their class action lawsuit and recovered nothing for their traumatic brain injuries. For example, the NFL argued that Plaintiffs' claims were preempted by federal labor law, time-barred under a number of statutes of limitations, and also subject to dismissal since players assumed the inherent risk associated with football. The NFL Plaintiffs' also faced a huge hurdle in trying to meet their burden of proof that retired player injuries were caused by football played

in the NFL as opposed to injuries sustained in Pop Warner, high school or college play. Viewed against this backdrop, the settlement will provide benefits for many seriously injured retired NFL players. But it is simply not fair compensation for the severity of the permanent and debilitating brain trauma that will inevitably lead to more sad stories, senseless suicides and impaired quality of life for brave NFL players who gave their brains, bodies and their futures to a sport they loved. The fact of the matter is the NFL made billions sacrificing their own and they are missing a golden opportunity to do the right thing. Even with the settlement in place, nothing prevents the NFL from using a small part of their empire to provide additional support to retired players and their families who are suffering from the debilitating effects of TBI and CTE, the industrial disease of football. 🍷



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# Evaluating Damages in Catastrophic Injury Cases: A Primer for the New LNC

*Elizabeth K. Zorn, BSN, RN, LNCC and Brian M. Zorn, Esq.*

**P**ersonal injury in a negligence action is defined as any harm caused to a person (Black's Law Dictionary, 2014). A tort is a "civil wrong, other than breach of contract, for which a remedy may be obtained, usually in the form of damages" (Black's Law Dictionary, 2014). Types of personal injury tort claims include medical malpractice, slip and fall, labor law (work injuries), vehicular accidents, product liability, and toxic torts, among others. Catastrophic injuries, as the name implies, involve significant physical and/or cognitive deficits, typically resulting from serious injuries to the brain or spinal cord (e.g. paralysis), serious burns, loss of limb(s) or death.

Damages in a personal injury tort claim are the money the defendant(s) pays for injury or loss caused by negligent acts (Black's Law Dictionary, 2014). The potential recovery in catastrophic injury cases is substantial due to the high costs of plaintiff's lifetime medical care needs, diminution in earning capacity resulting from the injuries, and the monetary value attached to significant pain and suffering and functional loss.

The stakes are high for both sides when a catastrophic personal injury case goes to trial. Plaintiffs risk a defense verdict with no award to cover future medical needs or lost income. Defendants risk a high jury verdict. Thus, many of these cases ultimately settle before trial. Before settlement, each side conducts its own evaluation of the potential case value. Below is an introduction to the basic economic and non-economic damages recoverable in a catastrophic injury case, the usual methods used to assess such damages, and the role of the Legal Nurse Consultant (LNC) in evaluating a catastrophic injury case.

## ECONOMIC DAMAGES

Economic damages are actual dollars losses that can be calculated. They include past and future lost wages, third

*The potential recovery in catastrophic injury cases is substantial due to the high costs of plaintiff's lifetime medical care needs, diminution in earning capacity resulting from the injuries, and the monetary value attached to significant pain and suffering and functional loss.*

party liens, and medical and other out of pocket medical expenses resulting from plaintiff's injuries.

## NON-ECONOMIC DAMAGES

Non-economic damages are intangible losses for which there is no mathematic basis for valuing (Glannon, 2010).

The main non-economic damage categories include physical pain and suffering, and mental or emotional harm. Some states have imposed caps on non-economic damages.

*Physical pain and suffering* pertains to the plaintiff's conscious physical discomfort resulting from the injuries. The dollar amount is generally proportional to the severity of the pain and length of time the injured party has suffered and will likely suffer in the future. Plaintiffs with catastrophic injuries often suffer from severe chronic pain. For example, plaintiffs with significant burn injuries are likely to suffer substantial pain at the outset and throughout painful treatment procedures over a long time period. Other considerations when evaluating this element of damages include the extent to which pain is adequately controlled with medications or invasive procedures such as a spinal cord stimulator. Adverse effects of treatment the plaintiff is caused to undergo for injuries are compensable. For example, some plaintiffs experi-

ence adverse side effects from analgesic medications including gastric, kidney or liver problems or somnolence impairing daily activities. Plaintiffs who undergo invasive treatments for pain, such as spinal injections, may suffer complications such as infection or nerve injury from these procedures.

*Mental or emotional harm* is defined as "any impairment of the functioning of a person's mind, especially when the impairment has resulted from something external, such as an injury" (Black's Law Dictionary, 2014). In a catastrophic injury case, mental harm may result from direct injury to the brain tissue controlling emotions or cognitive function, or from adverse emotional responses to severe physical injuries. Many plaintiffs with catastrophic injuries require intensive care, which is sometimes associated with "ICU psychosis" (Epstein, 2014). This may include auditory or visual hallucinations induced by certain medications. Another known sequela of catastrophic injury is post-traumatic stress disorder (PTSD) which "is characterized by intrusive thoughts, nightmares and flashbacks of past traumatic events, avoidance of reminders of trauma, hypervigilance, and sleep disturbance, all of which lead to considerable social, occupational, and interpersonal dysfunction" (Sareen, 2017). Recent attention has focused

## Wrongful death damages include decedent's conscious pain and suffering from the negligent acts, their distributees' economic loss resulting from the death, and in some states their emotional harm from loss of a loved one.

on post-intensive care syndrome (PIS): as many as 40% of ICU survivors and family members experience physical, psychological, and/or cognitive dysfunction (Hoffman and Guttendorf, 2015).

Depression and anxiety are two common sequelae of chronic pain (Rosenquist, 2016). Plaintiffs who sustain substantial brain injuries but maintain an awareness of their impaired functioning, may suffer emotional distress related to this loss.

Plaintiffs who survive severe hypoxic-ischemic brain injuries are at risk for significant neurological sequelae, including altered levels of consciousness and seizures (Weinhouse, 2013). Severe head injuries can result in traumatic brain injury (TBI). Moderate to severe TBIs are associated with neurological and functional impairments (Hemphill, 2016). Plaintiffs sustaining brain injury of any type often have chronic cognitive deficits.

Plaintiffs with catastrophic injuries often cannot engage in the same daily, recreational or avocational activities as before the injuries, or they do so with pain and limitations.

Some states allow recovery for loss of enjoyment of life, defined as "detrimental changes in a person's life, lifestyle or ability to participate in previously enjoyed activities and pleasures in life" (Black's Law Dictionary, 2014).

**Loss of consortium claim** may be brought on behalf of the non-injured spouse for economic and noneconomic losses. Economic losses are for the services the injured spouse can no longer perform such as indoor and outdoor household maintenance, assistance with activities of daily living or transportation. It also includes emotional losses, such as "affection, comfort, companionship, and sexual society" (Glannon, 2010). Filial consortium is a child's care, solace, affection, and companionship given to a parent; paternal consortium is a parent's care, solace, affection and companionship given to a child. While some states recognize the latter claims, most have restricted loss of consortium recovery to spouses (Glannon, 2010).

### DAMAGES IN WRONGFUL DEATH CASES

Wrongful death damages include decedent's conscious pain and suffering from the negligent acts, their distributees' economic loss resulting from the death, and in some states their emotional harm from loss of a loved one. Some states do not allow recovery for emotional harm, which means the potential recovery is more limited. For example, New York only allows recovery for pecuniary (monetary) injuries. (N.Y. Est. Powers & Trust Law, 2017). Some states allow damages for emotional pain and suffering for pre-impact terror just prior to death

when it can be established that the individual was conscious, even for a brief period of time and knew death was imminent, such as an airline crash or electrocution victim.

### EVALUATING DAMAGES IN CATASTROPHIC INJURY CASES

Assessment of damages requires evaluation of medical records documentation, parties' deposition testimony, monetary loss documentation, third party liens, expert opinions and independent (defense) medical examiners' reports.

**Medical records:** Documentation about the nature and consequences of plaintiff's injuries is derived from numerous types of medical records including those from hospitalizations, out-patient procedures, physician offices, physical therapy, occupational therapy, speech-language therapy, mental health practitioners, chiropractors, prescription records and wholistic health providers, among others.

**Deposition testimony:** The plaintiff is questioned in detail under oath about the nature and extent of the injuries, and must produce a list of all health care providers providing treatment for these injuries. The plaintiff must also provide information about any pre-existing medical problems, including prior illness or disease impacting the same body part or system. Finally, plaintiff will be questioned about the impact of the injuries on activities of daily living, and ability to engage in prior vocational and avocational activities. If there is a loss of consortium claim, the spouse will testify about the loss of services resulting from plaintiff's injuries.

**Monetary loss:** Plaintiffs with catastrophic injuries commonly assert a claim for monetary (economic) loss from lost wages and out of pocket medical expenses. The plaintiff must



produce numerous records to support the existence and value of alleged economic losses, including where applicable, income tax documents, wage and benefit statements, pension statements and medical bills.

**Third party liens:** Since plaintiff must pay any liens and other reimbursement claims out of the settlement proceeds, the existence and amounts of all liens or reimbursement claims are necessary to evaluate damages and formulate an appropriate settlement demand. The most common liens or reimbursement claims are from Medicare, Medicaid, self-funded ERISA plans (provided by certain employers) and workers compensation. However, there may be others and it is important to elicit information about all potential liens or reimbursement claims as early as possible. It is also important for the attorney to determine whether any lien or reimbursement claim can be reduced and, if so, by how much.

## EXPERT EVALUATIONS

Experts are critical in establishing damages in a catastrophic injury case. In some cases, such experts may be treating physicians.

**Neuropsychology** is a subspecialty of psychology that “applies principles of assessment and intervention based upon the scientific study of human behavior as it relates to normal and abnormal functioning of the central nervous system.” (American Psychological Association, 2010). Plaintiffs with severe hypoxic or traumatic brain injuries often suffer significant cognitive deficits or personality changes. Neuropsychologists are skilled in assessing such brain injuries, commonly utilizing a battery of tests that evaluate the following function categories (Malik, 2017):

- Intellectual functioning
- Academic achievement
- Language processing

- Visual-spatial processing
- Attention and concentration
- Verbal/visual learning
- Memory (short and long term)
- Executive functions
- Speed of processing
- Sensory perceptual functions
- Motor speed and strength
- Motivation
- Personality assessment

The neuropsychology expert conducts a battery of tests over several hours, and summarizes the plaintiff’s deficits based upon testing results. The expert also identifies those deficits that likely resulted from the plaintiff’s injuries. Given that most individuals do not undergo baseline neuropsychological testing, the expert must base opinions on whatever pre-morbid documentation of cognitive and interpersonal functioning exists. This includes evaluation of prior academic records and achievement, and previous employment responsibilities and job performance evaluations in comparison to post-injury capabilities. The neuropsychologist may also review post-injury medical treatment records and interview close family members about premorbid personality traits to evaluate personality changes resulting from a catastrophic injury.

All neuropsychologists are not created equal; there are many educational paths and credentials. The skilled LNC will look for multi-year clinical residencies and other advanced preparation when vetting a potential testifying expert.

A **vocational rehabilitation expert** may be used where plaintiff claims lost or diminished wages because the injury precludes plaintiff from continuing pre-injury employment at all, or at the same level. This expert would assess whether plaintiff is employable and, if so, in what potential capacities and to what extent.

The assessment is based on multiple factors including, among others, education, work experience, functional limitations and the types of jobs, if any, available for plaintiff’s assessment profile. The assessment includes current wages for such jobs, the number of hours plaintiff could work, accommodations needed, training or education required, and the cost of such training or education. The assessment may also include a functional capacity evaluation, a “battery of standardized assessments that offers results in performance-based measures and demonstrates predictive value about the individual’s return to work” (The American Occupational Therapy Association).

**Life care planners** (LCP) typically are nurses or vocational rehabilitation specialists. They prepare life care plans, assessments of the annual health care and related needs over plaintiff’s lifetime with associated costs. This detailed cost analysis is based on review of pertinent medical records, assessment of the plaintiff and plaintiff’s home or outside living facility, consultations with plaintiff and responsible relatives, consultations with key health care providers, and reference to applicable resources for care and equipment costs. Several professional associations provide standards of practice and other resources for life care planners, including the American Association of Nurse Life Care Planners ([www.aanlcp.org](http://www.aanlcp.org)) and the International Association of Rehabilitation Professionals ([www.rehabpro.org](http://www.rehabpro.org)). Standards of LCP practice require that assessments performed by the life care planner should not exceed scope of practice of the planner’s professional licensure or certification, e.g., RN, LICSW, CRC.

The **economist** provides three main types of projections: 1) future health care and related costs; 2) lost future earnings and benefits; and 3) loss of

household services. The projection for future health care and related costs typically is based on the life care plan cost analysis and takes into account inflation and life expectancy, among others factors.

**Independent (defense) medical examiners** may be requested; the defense is entitled to a physical and/or psychological examination by a health care provider of their choice. Examiners typically possess clinical expertise in the type of injury plaintiff sustained. For example, a plaintiff alleging cognitive injuries might be examined by a neuropsychologist. Defense counsel provides the examiner with the plaintiff's medical records and applicable imaging studies before the exam. After the exam, the examiner provides a report to defense counsel that includes an opinion regarding the cause, nature and extent of plaintiff's injuries. This report is then produced to plaintiff's counsel. The procedural rules related to independent medical exams vary with state law.

## JURY VERDICT/SETTLEMENT SEARCHES

Jury awards and settlement amounts for particular injuries vary with the trial venue. Thus, each side may conduct jury verdict and settlement searches to determine previous awards and settlement amounts for similar injuries in the same state or geographical area, utilizing fee-based web programs such as Verdictsearch, Thompson Reuters Westlaw™ or Lexis Advance®. In high damage cases, it is especially helpful to research appellate court decisions related to whether an award was either inadequate or excessive. This gives the attorneys the award range appellate courts deem appropriate for a particular injury.

## SETTLEMENT

**Structured settlements** provide periodic payment streams (e.g. monthly,

yearly) and/or future lump sum payments. Potential benefits provided by structured settlements, among others, include payments (including principal and interest) are exempt from federal and state income taxes under IRC § 104(a)(2); payments can be timed to arrive when needed to meet anticipated specific future expenses; payments can continue for plaintiff's life eliminating the risk of plaintiff outliving the funds; inflation escalators can be built in; and age-rating may be available to enhance the payments available for a given cost.

**A Medicare Set-aside Arrangement (MSA)** is an account in which money from plaintiff's settlement proceeds is set aside to pay future medical expenses for related injuries that would otherwise be covered by Medicare. Such future Medicare-covered expenses and when they will arise can be determined by an MSA specialist. If a life care plan has been prepared the expenses can easily be extracted from it. The MSA can be funded either by a lump sum payment or structured payments that deliver funds to the MSA account when they will be needed according to the MSA specialist's analysis.

It is important to note that under the present applicable statutory and regulatory scheme, whether MSAs are required for liability settlements involving Medicare beneficiaries (other than in Workers Compensation cases) remains unclear and a source of disagreement among personal injury attorneys. Therefore, future developments regarding MSAs should be monitored closely.

**Special needs trusts (SNTs)** preserve certain public benefits -- Medicaid and SSI -- for those in need of assistance because of a disability. Funds in an SNT are not considered "available" to the injured person in determining qualification for or continuance of such public benefits and, therefore, do not disqualify plaintiffs from receiving such benefits.

Personal injury attorneys typically consider SNTs whenever settling a personal injury claim for a plaintiff who is disabled and receives needs-based benefits such as Medicaid or Supplemental Security Income. Preserving such benefits can be financially beneficial, and in many cases the benefits are substantial. In addition, SNT funds can be managed in a secure and responsible way through the use of appropriate trustees. SNTs can be funded with structured settlements and thus get the positive features structures offer including the ability to eliminate the risk that beneficiaries will outlive their funds.

## THE LNC ROLE IN EVALUATING DAMAGES IN CATASTROPHIC INJURY CASES

Legal nurse consultants (LNCs) are integrally involved in assisting attorneys to evaluate damages in medical malpractice and other personal injury claims. Attorneys are most likely to seek LNC assistance with catastrophic injury cases of all types because typically they involve complex medical issues, voluminous medical records, and high stakes.

While the LNC role varies with the firm or attorney preferences, LNCs can participate in damages evaluation by:

- Identifying the relevant health care providers, periodically updating the medical records
- Preparing a chronology with medical records excerpts pertaining to damages
- Preparing a "pain and suffering" chronology
- Identifying those injuries resulting from the negligent acts, including whether there is aggravation of a pre-existing or latent condition
- Identifying the experts necessary to opine regarding damages and providing them with the necessary materials to evaluate damages

- Conferencing with the expert and the attorney about the nature of plaintiff's injuries and the impact on prior level of functioning
- Drafting the damages portion of interrogatories or similar discovery requests
- Providing the attorney with medical literature, anatomy drawings or medical terminology definitions to facilitate an understanding of the plaintiff's injuries
- Preparing and editing (plaintiff LNC) or evaluating (defense LNC) the damages portion of plaintiff's demand letter
- Conducting a jury verdict search
- Analyzing itemized liens and other reimbursement claims to determine which items are pertinent to alleged the injuries
- Participating in preparation of demonstrative evidence pertaining to damages for mediation or trial

## CONCLUSION

Skilled LNCs can provide enormous assistance in evaluating damages in catastrophic injury cases. Doing so requires in-depth review and analysis of the applicable medical records and other evidence, as well as a comprehensive understanding of the elements comprising economic and non-economic damages in the applicable jurisdiction. 🐾

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She wrote a chapter for AALNC's LNC Principles and Practice, 2nd (2003) and 3rd (2010) editions, several modules in AALNC's LNC Online Course, several JLNC articles, and edited AALNC's "Getting Started in Legal Nurse Consulting." She has served on many national AALNC committees and presented at professional and educational programs and webinars for attorneys and nurses. She has mentored multiple LNC interns at her law firm over the past 12 years. She is also currently serving on AALNC's Scope & Standards and Revised Online LNC Course Committees. From 2010 to 2014, Beth served on the AALNC board of directors. She can be contacted at [elzorn@faraci.com](mailto:elzorn@faraci.com).



# CONCUSSION – The Invisible Injury

Emily Tong, MS, ATC, VATA, ITAT and Jon Almquist, ATC, VATA, ITAT

## INTRODUCTION

The topic of concussions has become prominent among professional, collegiate, high school and youth sports athletes, coaches and parents, news commentators, and even state and federal legislators. An injury that was once minimized as “getting your bell rung” now deserves a more serious approach.

Most research on concussion comes from the sports arena. However, although concussion isn’t limited to athletes, research on concussions occurring outside of sport is lacking. This article is meant to look at how concussion impacts people in all ages and walks

of life, and to discuss current trends in diagnosis and treatment standards, return to work, return to learn, and return to play.

## WHAT IS CONCUSSION?

Concussion is caused by the acceleration or deceleration of the brain within the skull (Womble, 2016) when the head hits, or is hit by, a moving or stationary object (example: getting hit in the head with a ball or bumping the head on a shelf), or with an indirect impact via contact to the body. Consider, for example, a motor vehicle accident in which the seatbelt holding the body in place creates a rapid deceleration and

change of direction to the driver’s head, whiplash. Since the brain continues to move in the same direction as the head reverses direction, it can be injured even without a direct blow to the head.

Concussion affects brain cells at the metabolic level, creating an “energy crisis,” as the ion balance that creates action potentials falls out of sync (Giza & Hovda, 2014). The resulting inefficiency in communication and processing accelerates energy loss. Since the brain spends a considerable amount of energy processing visual and vestibular information throughout the day, concussion patients typically exhibit visual or vestibular abnormalities (Collins, 2015).

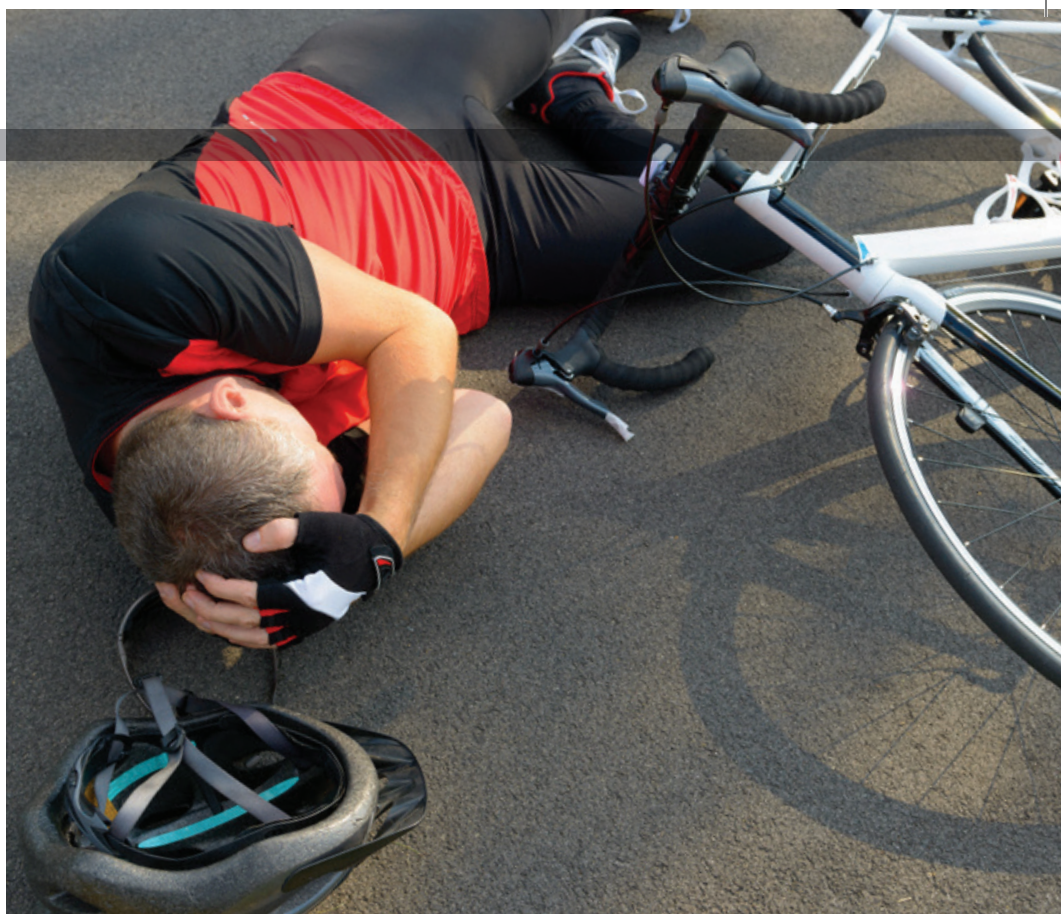
## RISK AND BASELINE TESTING

Baseline concussion testing commonly refers to neurocognitive screening with a computerized tool (e.g., ImPACT, C3Logic, CNS Vital Signs) completed at a time when the athlete is not concussed, in order to record normal brain function for comparison should concussion occur. This is extremely valuable to help a clinician determine when complete brain function has returned for the individual.

In absence of baseline testing, regardless of whether or not the chosen screening tool provides normative population data, the clinician must be more cautious clearing a patient for contact athletic activity, because lack of reported symptoms does not necessarily denote full brain recovery and the clinician must allow for extra time for proof of competence. It is important to stress that in absence of a fool-proof concussion diagnostic, neurocognitive testing is only one of many tools a clinician uses to assess concussion, and it is imperative that the clinician know how to interpret the testing if planning to use it in assessment.

Baseline testing in sport is currently recommended and considered helpful, but not designated as mandatory for assessment of injury (McCrory et al., 2016). The CDC recommends baseline testing every 2 years (CDC, 2015). Since concussion research in youth sport is limited and children at younger ages mature so rapidly, we recommend annual baseline tests prior to Grade 9 and biennial testing after Grade 9, regardless of sport type.

Even the non-contact sport athlete is at risk for concussion, whether through accidental incident in sport training or a non-related sport injury. Understanding that resources can be a limiting factor, we recommend that at minimum all contact and collision sport athletes, who



*An injury that was once minimized as “getting your bell rung” now deserves a more serious approach.*

are at higher daily risk for concussion, be baseline tested. When testing is voluntary, it tends not to get done, resulting in a more time-consuming and frustrating return to play process due to lower level of safety confidence. Most high school and college sport programs now require baseline testing for all athletes.

## DIAGNOSIS AND CLASSIFICATION

Since concussion is a metabolic injury, brain imaging is not used to diagnose it, because modern imaging (MRI, CT scan, etc.) cannot capture metabolic inefficiency. Imaging is obtained only to rule out fracture or hemorrhage.

Since there is no single easily-administered, foolproof test, imaging,

or biomarker, concussion evaluation and diagnosis is a specialty. Concussion specialists take a thorough history of injury and pre-existing factors, assess symptom patterns, conduct vestibular and ocular screening, do neurocognitive tests, and evaluate physical ability. These help determine whether concussion diagnosis is possible, what profile(s) are present, and guide the best management plan.

Prior concussion is a risk factor, but does not determine severity; all concussions, even in the same individual, are different. Pegging athletic eligibility to number of previous concussions is now considered an outdated concept. Athletic medical disqualification is a highly personal decision in which number, frequency, type, mechanism, and



severity of all prior concussions play a role. Our best knowledge at this time is that multiple concussions throughout a lifetime does not indicate future health problems, provided that each injury heals before the next occurs.

Contrary to longstanding belief, all concussions are different, and therefore should not be treated identically. In contrast to the outdated classification system of “Mild, Moderate, Severe,” the literature currently recognizes six different concussion profiles:

- Migraine
- Ocular
- Vestibular
- Cognitive
- Mood (anxiety)
- Cervical

Most patients exhibit a combination of these (Collins, 2015). Symptoms can take up to a week to surface. Individual factors, both pre-existing and lifestyle, influence resolution. Therefore, predicting recovery at any given time is impossible.

### MANAGEMENT

Current care standards treat the specific profiles with targeted rehabilitation, and incorporate prescribed physical exertion throughout the recovery period (McCroery et al., 2016). Prescribed rest for longer than 1-2 days is no longer considered correct, as patients reported persistent symptoms with longer periods of complete rest. Patients showed better improvement with early, modified re-engagement in daily physical and mental activity. (Thomas et al., 2015).

Clinicians no longer recommend complete removal from work or school until symptoms resolve. However, increasing stress related to schedules, income loss, responsibilities in a company, or keeping up with the curriculum is not helpful. The goal is to keep an individual in his normal routine, with normal sensory experiences the brain can use to re-train itself. In a targeted rehabilitation program, the patient benefits from progressive return to work or school with modifications to decrease any triggers that exacerbate symptoms (Collins, 2015). Adaptations might include temporary reduction of work/school hours or responsibilities, frequent short rest breaks to manage cognitive fatigue, computer monitor adjustments to decrease light sensitivity, or deadline extensions. For those who cannot return to work at partial status, work hardening programs help provide a progressive return to the challenges of work.

### FOLLOW-UP CARE

Follow-up appointments are individual. Typically we see patients weekly to bi-weekly. In the longer term, we may follow up monthly with those having deficits requiring referral to another specialist. We do most treatment and rehabilitation in office and through home programs, but will refer for deficits requiring more expertise, such as physical therapy for neck injury or benign paroxysmal positional vertigo (BPPV), neuro-optometry for complicated vision deficits, and vestibular therapists for unresponsive balance and spatial awareness deficits.

### CHANGING TIMES, CHANGING MANAGEMENT

Rate of reported concussion has increased markedly in the last 15 years. Why? Increased research has modified the definition of concussion in medical literature. This changes how we approach injury management and to

increased public awareness to the dangers of untreated injury.

Consider the brain's high energy needs to navigate a day in 2017, compared to 1999. The typical teenager is challenged with higher volume of work, in more challenging curricula. Technology and "being connected" has led us to be constantly stimulated, sometimes carrying on multiple conversations with multiple people at one time. Simply follow the cell phone traffic of an average teenager. There is much less actual dialog even between close friends as "texting" or "posting" has taken over. Recently I asked teenagers how much time they typically are on their phones; the answers were about 3 – 5 hours a day. I asked how much time was spent "talking" on their phone. I got puzzled looks and "Only when my mother calls."

The concussed brain becomes less efficient in its processes and functions; it needs to slow down. In years past, perhaps we were able to continue functioning because we were not already pushing things to the limits. We had some reserve to take up the slack while the brain was working a bit slower, subsequently allowing the brain to heal rapidly and never creating a scenario of overuse or fatigue that may have triggered symptoms. Our current world is fast-paced, competitive, and cognitively advanced. Modern brains are fatigued prior to concussion, and our current lifestyle is not conducive to slowing down and allowing a brain to heal.

## LEGISLATION

Recently, all 50 states have passed legislation relating to concussion in youth and school athletes. Most are based on concepts from the 2009 Zackery Lystedt Law (Washington State Legislature, n.d.). Most states now require student-athletes be provided concussion education that includes recognition of signs and symptoms, and the importance of not continuing to play when



*Providers evaluating and treating concussion should employ a multi-faceted approach, as there is no single fool-proof diagnostic test.*

signs and symptoms of concussion are present. Most legislation also implemented rules to prevent return to participation for the remainder of that day and mandatory clearance by an appropriate medical provider in order to return to play. Many laws also require the student athlete's parents to acknowledge they have been provided education on concussion.

## SUMMARY

Due to increased research and elevated brain energy demands in daily life compared to 15+ years ago, an injury that was once hardly a consideration

is now recognized as a serious problem. Providers evaluating and treating concussion should employ a multi-faceted approach, as there is no single fool-proof diagnostic test. Concussion must be treated as a highly-individualized injury. Recovery time is impossible to predict, so the clinician should follow up frequently to ensure the treatment results are always moving in a positive direction. In regard to sport related injury in school athletes, states have recently passed legislation regarding concussion education, management, and return-to-play guidelines under care of

## Providers evaluating and treating concussion should employ a multi-faceted approach, as there is no single fool-proof diagnostic test.

appropriate medical professionals. We recommend that all athletes be baseline-tested before athletic competition, with mandatory testing for those in contact and collision sports. Although neurocognitive testing is not the only tool in a clinician's toolbox, it adds another level of confidence in returning an athlete safely to sport. Without a baseline test, the clinician must be more cautious and allow for more time to ensure complete recovery.

### FOR MORE INFORMATION

In order to stay up to date with management, we follow a few different sources. The annual International Conference on Concussion in Sport continues to provide the gold standard for management practices. Over the past decade, the resulting Consensus Statements on Concussion in Sport have been considered the most comprehensive authoritative document on sports related concussions. The Consensus Statement from the Fifth ICCS, in Berlin, is available for free download at <http://bjsm.bmj.com/content/51/11/838>.

We also closely follow research generated by the University of Pittsburgh Medical Center and the University of Arkansas, both centers for cutting edge research.

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# Concussion: Helping Your Loved One Heal

Michelle Bengtson, PhD

*Frequently following traumatic brain injury or concussion, loved ones and family members do not have a good understanding of the concussive process, its symptoms, typical course of recovery, what to expect during recovery, and how to assist with recovery to help optimize healing. You may wish to share this brief article to help educate family members understand the post-concussive process and how they can be most helpful.*

In the case of traumatic brain injury, often times, loved ones are unfamiliar first with the concept of concussion, much less what to expect or how to help. In such unfamiliar territory, they don't even know what questions to ask medical personnel in order to better understand.

## WHAT IS CONCUSSION?

Concussion is a unique brain injury. It can occur either from a direct blow to the head, such as in a boxing match, a strike from a falling object, a fall resulting in the head striking an object, or from whiplash. Whiplash is essentially caused by a strong blow to the neck or body causing

the brain to “whip” inside the skull. This can tear brain tissue and be extremely serious. What makes such injuries difficult to manage both for the patient and their loved ones is that they're invisible, unlike a broken arm or leg, so it is more difficult to determine what areas of functioning might be compromised.

## WHAT SYMPTOMS MIGHT BE EXPERIENCED AFTER CONCUSSION?

Symptoms experienced following a concussion vary depending on the location and severity of injury. Physical ramifications can be complex, depend-

ing on injury method, location, and severity. Movement, speech and language, vision, hearing, and more may be compromised. Cognitive symptoms may include decreased focus, attention, concentration, processing speed, language processing, and comprehension. There may also be difficulties with expression, memory encoding and retrieval, abstract problem solving, cognitive flexibility, and visuospatial ability. Patients can experience emotional highs and lows, depression, anxiety, anger, and frequently rapidly-changing mood swings over short periods of times, with personality changes that are not consistent with their pre-injury personality.

## HOW DOES CONCUSSION HEAL?

After concussion, the brain requires significant time and rest to recover and heal. Sleep and minimization of all stimulation are important to allow the brain to focus its energy on recovery. The brain cannot adequately heal and restore function when the person does too much work, either physically or mentally. Hence, it is crucial that your loved one not be allowed to return to normal work activities or spend time on electronic devices that stimulate the brain (including televisions, computers, tablets, personal phones, etc.). This is most important in the first month following injury, but should actually apply until all symptoms have disappeared.

## WHAT CAN WE EXPECT DURING HEALING?

A concussion affects not only the one who was injured. It often also has a profound effect on an entire family. Expect to see many emotional ups and downs and a decrease in performance and cognitive abilities during healing. Many concussion patients try to resume their normal activities as soon as possible, not realizing the extent of their difficulties and limitations. However, taking on too much, too soon risks further injury and can compromise ultimate recovery. This means that everyone in the family must be patient, supportive, and encouraging during the healing process.

## HOW CAN OUR FAMILY HELP DURING HEALING?

The most important thing is rest! Your patient, emotional support is also very important.

- Physical, cognitive, and emotional rest are the most essential components to your loved one's recovery. It is extremely important to support your loved one get plenty of sleep at night and plenty of rest during

the day. When he feels frustrated or unproductive by inability to perform normally, remind him that the brain is actually very busy doing a great deal by healing and repairing.

- Recovery will vary, so don't expect that your loved one's progress will be the same every day. Concussion symptoms will vary from time to time over the course of the time, being less severe on one day or part of a day, and then more severe later. The ability to see clearly may come and go. It often seems like "two steps forward, one step back," so be very patient. This is normal progress. Neither you nor your loved one can do anything about it. Remember that the brain cannot be relaxed and anxious at the same time, so as much as possible, help your loved one remain relaxed to optimize brain recovery.
- Don't expect your loved one to have normal reaction times, normal memory, or normal feelings. It may take longer to answer a question or complete a task. At times she may be discouraged or afraid but not want to tell you. Your emotional support at these times is very important. When she tells you she can't do something right now, then she can't, so be prepared to change your expectations.
- Offer to help by writing down things that are hard for your loved one to remember.
- Check in with your loved one a few times each day to see what you can do to help.
- This is not a time for your loved one to make decisions of any kind. Support him by gently encouraging him to put off decisions until he is better. The family can rally to make day-to-day decisions for now when your loved one cannot perform as usual.
- Family members must step up (as appropriate) and take on some of the things your loved one usually does such as meal preparation, house-

cleaning, planning, making checklists, running errands, paying bills, etc.

- As she heals, encourage her to take on normal activities progressively, a little at a time, never all at once. Use gentle reminders to help her restrict her physical and cognitive activities when she tries to do too much too soon.
- On days when he must meet responsibilities outside the home, offer extra support at home.
- Understand that your loved one may not recognize that his emotional reactions are outside the scope or degree for what is normal. It is important for you to stay calm and rational even when he does not or cannot.
- It is crucial that as a loved one of a concussion survivor, that you realize that your loved one is not intentionally taking her frustration out on you. She feels out of control over just about every aspect of her life. If she realized how her reactions were affecting you, she would likely feel very guilty.
- Be as compassionate and understanding as possible, and if you need to, take a break in order to keep your own perspective. You have the ability to keep your wits about you, when, because of brain injury, your loved one likely does not. 🍷



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## INTRODUCTION

In the general population the chance of developing PTSD after exposure to a traumatic event is between 5% and 24% (Breslau, 2001). It is a severe, life-disrupting disorder that may develop as a consequence of exposure to one or more traumatic events which may occur over months or even years. It is characterized by a constellation of re-experience, hyperarousal, avoidance symptoms, and negative alterations in cognitions and mood. Also, PTSD can have detrimental effects on quality of life and the ability to sustain meaningful relationships and employment (American Psychiatric Association, 2013). See sidebar for the DSM-5 Definition of PTSD.

## TREATMENT MODALITIES

**Cognitive behavioral therapies** (CBTs) challenge the way individuals think and behave and are an effective intervention for treatment of PTSD (Kar, 2011). Cognitive-processing therapy (CPT) is a form of CBT developed by psychologist Patricia A. Resick, PhD (director of the women's health sciences division of the National Center for PTSD at Boston University) originally designed to treat rape victims (Resick, 2002). This treatment includes revisiting the traumatic event (exposure component) and places greater emphasis on cognitive strategies to alter client's erroneous thinking which has emerged as a result of the event. For example, when a client experiences a traumatic event and develops a false belief (e.g., "The world is no longer safe") the practitioner assists the client to process the memory to a positive belief (e.g., "I can learn to protect myself in a difficult world"). Client motivation combined with consistent homework improves results. (PTSD: National Center for PTSD, 2017).

**Prolonged Exposure** (PE) therapy was developed by Terence M. Keane, MD, PhD, University of Pennsylvania

psychologist Edna Foa, MA, PhD and Emory University psychologist Barbara O. Rothbaum, PhD (DeAngelis, 2008). It is a behavioral therapy that helps clients safely face frightening experiences and memories by recalling traumatic memories in a controlled fashion. Though exposing a client to the traumatic events that caused their trauma may seem counterintuitive, Rothbaum emphasizes that it's done in a gradual, controlled and repeated manner (DeAngelis, 2008). This process allows clients to evaluate their PTSD symptoms and present circumstances realistically, regain mastery of their thoughts and feelings around the incident, and begin to return to normal daily functioning.

**Psychotropic Medications.** Primary care physicians or psychiatrists may prescribe medications for symptom management. Below are listed some of the common types of medications prescribed to help improve symptoms of PTSD:

*Antidepressants* can treat symptoms of depression and anxiety and can also help improve sleep problems and concentration. Sertraline (Zoloft) and paroxetine (Paxil) are Food and Drug Administration (FDA) approved selective serotonin reuptake inhibitors (SSRI) for PTSD treatment (Mayo Clinic, 2017).

*Anxiolytics* can decrease feelings of anxiety and stress (Mayo Clinic, 2017).

*Prazosin* (Minipress) is an antihypertensive not specifically FDA-approved for PTSD treatment, but may reduce or suppress nightmares and insomnia in individuals with PTSD (Mayo Clinic, 2017).

**Eye movement desensitization and reprocessing** (EMDR) is a well-established, evidence based first-line

treatment for PTSD (World Health Organization, 2013; American Psychiatric Association, 2013). Dr. Francine Shapiro developed EMDR to incorporate cognitive, behavioral, psychodynamic and body-centered therapies and organize them in an eight-phase protocol (Shapiro, 2001). EMDR's eight-phased treatment protocol is guided by Shapiro's adaptive information processing (AIP) model. This model suggests that all human beings possess the innate ability to naturally integrate and assimilate many aspects of an experience. When a client experiences PTSD, however, the AIP becomes imbalanced and integrating the experience into semantic memory does not occur. As a result, the traumatic memory remains vivid and distorted (Shapiro, 2001).

EMDR treatment is believed to reactivate the natural information processing through bilateral stimulation (BLS) (Shapiro & Maxfield, 2002). The EMDR therapist guides the client with bilateral stimulation, such as eye movements following hand, tactile or auditory cues, while the client processes a distressing memory. This process facilitates resolution of the memory and allows new and more positive neuro-networks and skills to develop (Shapiro, 2001). The client shifts between the memory and being present in the office, which is referred to as dual attention. When EMDR is completed, the traumatic memory that was once vivid now appears foggy or distant (Shapiro, 2001). To learn more about EMDR, go to [www.emdria.org](http://www.emdria.org).

## CASE STUDY

A Caucasian, middle-aged female being treated for PTSD and major depression was referred to me by her primary care physician. Although the client had been prescribed an SSRI, her mental status continued to deteriorate. While working as a nurse in a local hospital she was held hostage, physically beaten,

and raped by a patient who was a prison inmate. The security guards who were responsible to monitor the prisoner's behavior abandoned her and left her vulnerable to the situation. After this assault, she was unable to perform as a nurse and was forced to take a medical leave of absence. Her treatment goals included decreasing PTSD symptoms, to reprocess the trauma experienced, and to return to work.

Based on the assessment of her symptoms she met the DSM-5 criteria for PTSD:

- + *Criterion A:* She experienced actual serious injury.
- + *Criterion B:* She continued to re-experience the traumatic event via intrusive thoughts, flashbacks, and continued emotional distress.
- + *Criterion C:* She avoided trauma-related thoughts, feelings, and reminders of the stimuli after the trauma.
- + *Criterion D:* Her negative thoughts and feelings were worsened by exaggerated self-blame, isolation, decreased interest in activities, and negative thoughts about herself.
- + *Criterion E:* Her trauma-related arousal and reactivity worsened after the trauma as she had difficulty concentrating and sleeping, and experienced hypervigilance and irritability.
- + *Criterion F:* Her symptoms persisted for several months after the traumatic injury. In fact, she did not start EMDR treatment until 3 months after the incident.
- + *Criterion G:* Her occupation and social life were impaired.
- + *Criterion H:* Her symptoms were not due to medication, substance use, or other illness.

She experienced depersonalization, as she was in shock regarding what had happened to her. She could not believe she had been taken as a hostage, beaten,

## THE DSM-5 DEFINITION OF PTSD

The American Psychiatric Association revised the PTSD diagnostic criteria in the fifth edition of its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; 1), (American Psychiatric Association, 2013) and included PTSD in a new category in DSM-5, Trauma-and Stressor-Related Disorders. All of the conditions included in this classification require exposure to at least one traumatic or stressful event as a diagnostic criterion. The following text summarizes the DSM-5 Criteria for PTSD for adults and children over the age six:

**Criterion A (one required):** The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s):

- Direct exposure
- Witnessing the trauma
- Learning that a relative or close friend was exposed to a trauma
- Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)

**Criterion B (one required):** The traumatic event is persistently re-experienced, in the following way(s):

- Intrusive thoughts
- Nightmares
- Flashbacks
- Emotional distress after exposure to traumatic reminders
- Physical reactivity after exposure to traumatic reminders

**Criterion C (one required):** Avoidance of trauma-related stimuli after the trauma, in the following way(s):

- Trauma-related thoughts or feelings
- Trauma-related reminders

**Criterion D (two required):** Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):

- Inability to recall key features of the trauma
- Overly negative thoughts and assumptions about oneself or the world
- Exaggerated blame of self or others for causing the trauma
- Negative affect
- Decreased interest in activities
- Feeling isolated
- Difficulty experiencing positive affect

*continued on page 28*

## THE DSM-5 DEFINITION OF PTSD

*(continued from page 27)*

**Criterion E (two required):** Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):

- Irritability or aggression
- Risky or destructive behavior
- Hyper-vigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping

**Criterion F (required):** Symptoms last for more than 1 month.

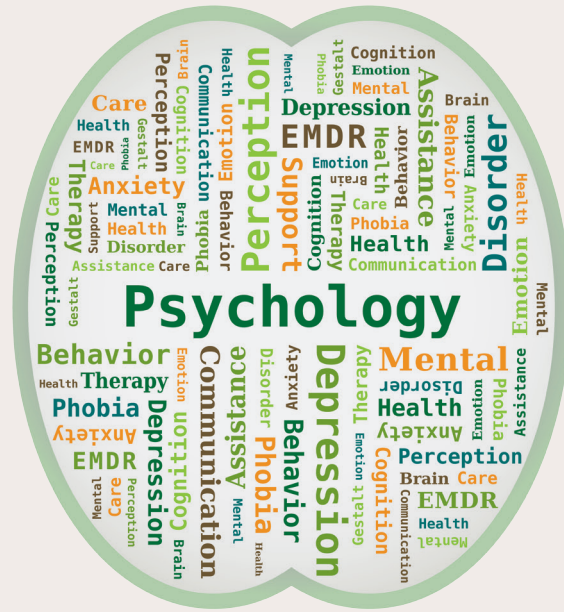
**Criterion G (required):** Symptoms create distress or functional impairment (e.g., social, occupational).

**Criterion H (required):** Symptoms are not due to medication, substance use, or other illness.

In addition (when applicable) the following two specifications must be included:

1. **Dissociative Specification.** In addition to meeting criteria for diagnosis, an individual experiences high levels of either the following reaction to trauma-related stimuli:
  - A. **Depersonalization.** Experience of being an outside observer of or detached from oneself (e.g., feeling as if “This is not happening to me” or one were in a dream).
  - B. **Derealization.** Experience of being unreality, distance, or distortion (e.g. feeling as if “Things are not real”).
2. **Delayed Specification.** Full diagnostic criteria are not met until at least six months after the trauma(s), although onset of symptoms may occur immediately.

Source: Diagnostic and Statistical Manual of Mental Disorders (DSM-5; pp. 271-274) ([https://www.ptsd.va.gov/professional/PTSD-overview/dsm5\\_criteria\\_ptsd.asp](https://www.ptsd.va.gov/professional/PTSD-overview/dsm5_criteria_ptsd.asp))



and sexually assaulted. She experienced recurring symptoms for several months.

As I described PTSD to her, she was able to understand her symptoms more clearly. Furthermore, learning that EMDR therapy could be effective treatment, she was encouraged and hopeful.

After four sessions, her symptoms were markedly decreased. Her intrusive thoughts, flashbacks, and self-blame began to be replaced with the ability to process the trauma in a healthy manner. She continued to receive EMDR therapy and medical care until she was able to return to work as a nurse. She met her treatment goals and her ability to function was greatly improved.

## THE STANDARD OF CARE

*(Moffett and Moore, 2011)*

**Intake/Assessment:** A thorough biopsychosocial assessment is the foundation of an effective treatment plan for the patient experiencing PTSD symptoms. During this first step, the therapist and client begin to develop the rapport and trust necessary for a therapeutic relationship. A sound behavioral health intake should include:

- + present complaint
- + current symptoms
- + emotional/psychiatric history
- + extended family history
- + medical history
- + substance use history
- + developmental history
- + socio-economic history

**Diagnosis:** Using the DSM-5 criteria.

**Treatment modalities:** Implementing one or a combination of the four treatment modalities described above.

**Evaluation:** Did the client meet treatment goals at the conclusion of treatment? Did symptoms decrease and allow return to a more normal level of

functioning? Are there other issues the client would like to address in treatment? Have appropriate referrals been made if indicated?

**Closure:** Was there appropriate therapist/client closure? When reviewing the treatment goals, it is beneficial for the client to note emotional and psychological improvements. Referrals to other community resources may be applicable.

## SUMMARY

Knowledge about PTSD, criteria for accurate diagnosis, treatment modalities, and evaluating result of treatment can be helpful to the LNC in a number of settings. Step-by-step analysis of a patient's diagnosis and treatment can validate whether the quality of treatment met the standard of care.

Ongoing research offers immense hope for patients who suffer from PTSD. The LNC can be a vital link in the process of clarifying whether clients who have experienced PTSD have received proper diagnosis and treatment. 🐾

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# UNDERSTANDING THE EGGSHELL SKULL RULE: The Interplay Between Liability, Damages, And Apportionment

*Lesley E. Niebel, Esq*

**T**here has long been recognition in the common law that some people are more susceptible to injury than others, but that this should not be held against them when seeking damages from a wrongdoer. This concept is commonly referred to as the “eggshell skull” or the “eggshell plaintiff” rule. This article will discuss the origin of the rule and explain its application in the law.

## LEGAL INTRODUCTION

To explain the eggshell skull rule properly it is helpful to understand its place within the broader scope of the law. Although the doctrine is applicable in both civil and criminal law, this article will focus on its application within the civil context and more specifically in the law of torts. At its core, a tort is defined as conduct that amounts to a legal

wrong and that causes harm for which courts will impose civil liability<sup>1</sup>. Many different names have emerged to call a person that commits a tort (e.g. tortfeasor, wrongdoer, or negligent actor). Regardless of the name assigned to such a person, conduct that is unreasonable under a certain set of circumstances can be considered tortious if it creates a foreseeable risk of harm to another and such harm actually results. The most



common form of remedy in the law of torts is monetary compensation to the injured party. The tort most people are familiar with is negligence, but there are other similar theories of recovering damages from the wrongdoing of others.

## EGGSHELL SKULL RULE

It is at the stage of determining the damages of the injured party and thus the monetary compensation to be awarded where the eggshell skull rule becomes the focal point of the conversation. The eggshell skull, thin skull, or “take your victim as you find him” rule holds that the defendant is liable for the injuries caused by his or her tortious conduct notwithstanding the frailty of the injured person based on a preexisting physical or medical condition or some other characteristic.<sup>2</sup> Consequently, the tortfeasor becomes responsible for damages that flow from the natural and probable consequences of the tortious conduct, even though the victim sustains damages that are much greater than would be expected.<sup>3</sup>

The name of the rule derives from a hypothetical plaintiff that has an eggshell skull.<sup>4</sup> In this hypothetical, the defendant having no reason to suspect the plaintiff has an eggshell for a skull strikes the plaintiff over

*It is at the stage of determining the damages of the injured party and thus the monetary compensation to be awarded where the eggshell skull rule becomes the focal point of the conversation.*

the head causing the plaintiff to suffer injuries.<sup>5</sup> In an average person without an eggshell skull, the defendant would have caused only slight injury, but because this hypothetical plaintiff had an eggshell skull, the defendant caused injuries much greater than that of an average person.<sup>6</sup> The rule dictates that the defendant is liable for the full extent of the injuries plaintiff suffers from the tortious conduct.<sup>7</sup>

## ILLUSTRATIONS

One of the earliest articulations of the eggshell skull rule in the United States is the 1893 case of *Vosburg v. Putney*.<sup>8</sup> In *Vosburg*, two young boys were sitting across from each other in a classroom.<sup>9</sup> During the classroom instruction, one of the boys slightly kicked the other in the shinbone.<sup>10</sup> Unfortunately, the boy who was kicked had sustained an injury

to that same leg approximately six weeks prior to the incident.<sup>11</sup> The kick caused the plaintiff to become ill and undergo surgery on his leg.<sup>12</sup> During surgery, doctors discovered the bone had degenerated to an unrecoverable state and the plaintiff lost the use of his limb.<sup>13</sup>

Since *Vosburg* the application of the eggshell skull rule has become widely accepted.<sup>14</sup> Generally, the eggshell skull rule is applied in cases where there is: (1) an activation, trigger, excitement, or flare-up of a latent, dormant, or otherwise non-symptomatic physical or mental condition;<sup>15</sup> (2) a re-activation of a condition that was previously under control;<sup>16</sup> (3) aggravation or exacerbation of a preexisting physical or mental condition or disease;<sup>17</sup> and (4) an acceleration or hastening of disability or death.<sup>18</sup>

1. See Black's Law Dictionary 1717 (10th ed. 2014) for a more extensive definition of a tort.

2. See Dan B. Dobbs et al., *The Law of Torts*, § 206, at 711-13 (2d ed., v.1 2011); Restatement (Third) of Torts § 31 (2010) (“When an actor’s tortious conduct causes harm to a person that, because of a preexisting physical or mental condition or other characteristics of the person, is of a greater magnitude or different type than might reasonably be expected, the actor is nevertheless subject to liability for all such harm to the person.”) adopted and extended version of the Restatement (Second) of Torts § 461 (1965); Black’s Law Dictionary 629 (10th ed. 2014) (defining eggshell-skull rule as the principle that a defendant is liable for a plaintiff’s unforeseeable and uncommon reactions to the defendant’s negligent or intentional act.).

3. Dan B. Dobbs et al., *The Law of Torts*, § 206, at 711-13 (2d ed., v.1 2011); N.Y. PJI 2:283 (“The fact that the plaintiff may have a physical or mental condition that makes (him, her) more susceptible to injury than a normal healthy person does not relieve the defendant of liability for all injuries sustained as a result of (his, her, its) negligence. The defendant is liable even though those injuries are greater than those that would have been sustained by a normal healthy person under the same circumstances.”).

4. Dan B. Dobbs et al., *The Law of Torts*, § 206, at 711-13 (2d ed., v.1 2011).

5. See *id.*

6. *Id.*

7. *Id.*; Restatement (Third) of Torts § 31 (2010).

8. 86 Wis. 278 (1893). Another leading case on the eggshell skull rule is *McCahill v. New York Transportation Co.*, 94 N.E. 616 (N.Y. 1911). In *McCahill*, the defendant ran onto the plaintiff, who suffered a broken thigh and injured knee. 94 N.E. at 617. In the hospital the plaintiff rapidly developed delirium tremens because of a preexisting alcoholic condition. *Id.* The plaintiff later died and the defendant was held liable for his death. *Id.*

9. 78 Wis. 84, 85 (1890).



The first category of cases where the eggshell skull rule is applied is most likely the easiest for the plaintiff to prove damages. This is because the underlying condition was latent, dormant, or non-symptomatic before the tortious conduct and became symptomatic after the tortious conduct and so it is easy to see the extent of harm. Included in this category are plaintiffs whose extent of injuries are magnified over that of an average person based on a: (1) predisposition to certain physical conditions, such as heart disease or

genetic connective tissue disorder; (2) predisposition to certain psychological conditions or disorders; or (3) presence of physical conditions, such as hemophilia or diabetes.<sup>19</sup>

Similarly, the second category of cases incorporates plaintiffs who had an injury before the tortious conduct, but that injury had fully healed or was not symptomatic at the time the tortious conduct occurred. For example, say Patty Plaintiff broke her right arm when she was ten years old. At the age of

eighteen, Patty Plaintiff's right arm had fully healed and her right arm did not limit her in any way. At this point, Patty Plaintiff is involved in a car accident where she again breaks her right arm. Here, the tortfeasor is responsible for the car accident and will be fully liable for the damages caused by Patty Plaintiff's broken right arm because the arm was healed completely at the time of the tortious conduct.

The third category of cases looks closely at the status of the plaintiff at the time of the tortious conduct. If the plaintiff was suffering from any ailments that are made worse by the tortious conduct, the plaintiff will be able to recover only for that aggravation or exacerbation under the eggshell skull rule. To simplify, if Patty Plaintiff suffered a mild level of chronic back pain before the tortious conduct, and severe back pain after, the tortfeasor would be responsible for only the aggravation of the back pain from mild to severe.<sup>20</sup>

Lastly, if the tortfeasor accelerates or hastens a disability or death the eggshell skull rule will apply. Moreover, some jurisdictions have found the eggshell skull rule to apply even when the resulting injuries would have inevitably occurred irrespective of the tortfeasor's conduct, although it might affect the

10. *Id.*

11. *Id.* at 86.

12. *Id.*

13. *Id.*

14. Restatement (Third) of Torts § 31 (2010) ("Every United States jurisdiction adheres to the thin-skull rule; more precisely, extensive research has failed to identify a single United States case disavowing the rule.")

15. See 2 Stein on Personal Injury Damages Treatise § 11:1 (3d ed.); Prosser and Keeton, Torts § 43, at 291-92 (5th ed.); *Owen v. Rochester-Penfield Bus Co.*, 304 N.Y. 457 (1952).

16. *Id.*

17. *Id.*

18. *Id.*

19. This list is by no means exhaustive. Indeed, most jurisdictions will have a plethora of cases that implicate the eggshell skull rule in this context.

20. Restatement (Third) of Torts § 31 (2010).

21. See 2 Stein on Personal Injury Damages Treatise § 11:1 (3d ed.) fn.5, 6.

22. Restatement (Third) of Torts § 31, at pg. 2 (2010) (Illustration No.3).

23. *Id.*

24. *Id.*

amount of the damages award.<sup>21</sup> One example of this would be Peter Plaintiff who is diagnosed with terminal cancer and given only three months to live. Before that three-month period, Peter Plaintiff is struck by Terry Tortfeasor and is killed. Here, Terry Tortfeasor could still be held liable for damages in accelerating or hastening Peter Plaintiff's death even though Peter Plaintiff would have eventually died from cancer.

Another context where the eggshell skull rule is applicable is when the earning potential of the injured plaintiff is greater than might be expected. For instance, take Jennifer, who was driving an automobile when the voltage regulator in the car failed due to negligent installation.<sup>22</sup> The failure caused the battery fluid to boil, which produced toxic fumes that reached the interior of the car.<sup>23</sup> The fumes caused Jennifer to suffer chronic vocal-cord dysfunction as a result.<sup>24</sup> Jennifer was a popular vocal performer who earned several million dollars each year.<sup>25</sup> All of Jennifer's lost earnings due to her vocal-cord injury are within the scope of the negligent actor's liability.<sup>26</sup>

## PRACTICAL IMPLICATIONS

The plaintiff has the burden of proving the extent of his or her damages, even in the case of an aggravation or exacerbation, by a preponderance of the evidence.<sup>27</sup> In some jurisdictions, with respect to aggravation or exacerbation, plaintiffs are required to specifically plead the aggravation of the preexisting

physical or mental injury or disease as an element of special damages before recovery is allowed.<sup>28</sup> As a result, when dealing with a preexisting physical or mental injury or disease, it is wise for both plaintiffs and defendants to pinpoint the extent of the condition or disease before and after the tortious conduct, all circumstances surrounding the condition or disease, and the duration, treatment, recovery, and any limitations of activities. Defendants should try to limit the amount of damages recoverable by arguing, if applicable, that plaintiff's preexisting injury or symptomatic disease were the proximate, or contributing, cause of the injuries and not a result of the tortious conduct. Another potential argument a defendant can make is that after the tortious conduct occurred some intervening or superseding cause by a different tortfeasor contributed to the extensiveness of plaintiff's injuries such that the original tortfeasor's responsibility for the full amount of damages should be mitigated.

At trial, if the defendant seeks to avoid responsibility for the plaintiff's injuries by asserting that a plaintiff's injuries would be less severe had the plaintiff been an average person, a plaintiff can request that the eggshell skull jury instruction be given to explain this rule to the jury.<sup>29</sup> In the event a plaintiff suffered from a preexisting injury at the time of defendant's conduct, an additional jury instruction can be given (usually requested by the defendant) in

an attempt to separate, or apportion, the damages caused by the preexisting injury from any aggravation or exacerbation of the preexisting injury caused by the defendant's conduct. If such apportionment can be made, the defendant will be liable only for the aggravation or exacerbation of the preexisting injury caused by the defendant's conduct.<sup>30</sup> If an apportionment cannot be made, however, then the defendant is responsible for the entire amount of damages.<sup>31</sup>

The eggshell skull rule seems logical and straightforward in theory, but often times its application can be complicated given the factual circumstances of different cases. To understand the rule and its application in your jurisdiction it is helpful to first read jury instructions on the topic and then to research and evaluate case law for factual scenarios related to your specific issue. ☛



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25. Id.

26. Id.

27. 3-22 N.Y. Practice Guide: Negligence § 22.05 ("New York requires that the plaintiff affirmatively plead aggravation of injuries as a prerequisite to recover of damages for such injuries."). The burden may shift to the tortfeasor, however, if the plaintiff suffers a single indivisible injury caused by more than one tortfeasor. A preponderance of the evidence means it is more likely than not that defendant is responsible for the plaintiff's injuries.

28. See 36 N.Y. Jur. 2d Damages § 218.

29. 22 Am. Jur. 2d Damages § 251; 3-22 N.Y. Practice Guide: Negligence § 22.05; see *McCahill v. New York Transportation Co.*, 201 N.Y. 221, 223 (1911) (illustrating defense of this rule cannot be extended to avoid liability completely to a plaintiff merely because he or she is more susceptible to a greater degree of injury than that of a normal person).

30. See 2 Stein on Personal Injury Damages Treatise § 11:3 (3d ed.).

31. Id.



# Digital Motion X-ray, DMX Identifying Cervical Pathologies with Movement

Evan Katz, DC

Technical Editor: Randall Clarke, RN, BSN, LNC/Nurse Paralegal

**Keywords:** Digital motion X-ray; DMX; range of motion; chiropractor; whiplash; Frye; evidence; cervical instability; static x-ray; facet gapping; imaging; cineradiography; video fluoroscopy; video radiologic imaging DMX; DMX cervical imaging admissibility; DMX cervical imaging; computerized radiographic mensuration analysis; spinal arthritis and disc diseases (SADD), chiropractic biophysics (CPB), trauma

*Digital motion x-ray (DMX) allows the practitioner to see high quality x-ray through a full range of motion to better visualize injury, unlike static x-ray, MRI, and CT. This article will give a detailed explanation of DMX, its diagnostic use, its value in the clinical setting, some pathologies it can identify, use in the legal setting, and legal acceptance precedent.*

## INTRODUCTION

Digital motion x-ray (DMX) offers numerous diagnostic benefits, especially for trauma. After injury, most injured patients will hurt more when they move. However, with conventional imaging, like static x-ray, MRI and CT scan, the patient is usually immobilized in a non-weight bearing position.

Many injuries are more accurately identified through a full range of motion. Digital motion x-ray captures 30 frames per second of low radiation x-ray producing high quality x-ray throughout the full range of motion. The image contrast is opposite of a standard x-ray, showing the bones in black, providing better visualization of compression fractures. Radiation dosage of DMX is quite low compared to CT or the basic 7-view cervical spine survey series that includes anterior-posterior, flexion, extension, obliques, and anterior-posterior-open-mouth.

Digital motion x-ray and fluoroscopy are very similar. However, DMX takes more frames per second. One of its greatest advantages is that it allows visualizing the source of pain while the patient is performing full range of motion in real time. DMX can also clearly demonstrate progression of healing over time as improved spinal biomechanics occur. DMX is also a wonderful tool to show facet gapping and capsular injury (Styler, Hausin, et al., 2014).

Having additional information on how the spine moves and a definitive diagnosis of instability can greatly change a treatment plan and influence referral choices. DMX is cost-effective compared to traditional imaging. Being able to accurately and definitively diagnose biomechanical abnormalities can save money overall as well as the patient's time and suffering.

I have used DMX in court testimony (Colorado) showing full images of digital motion x-ray and explaining the

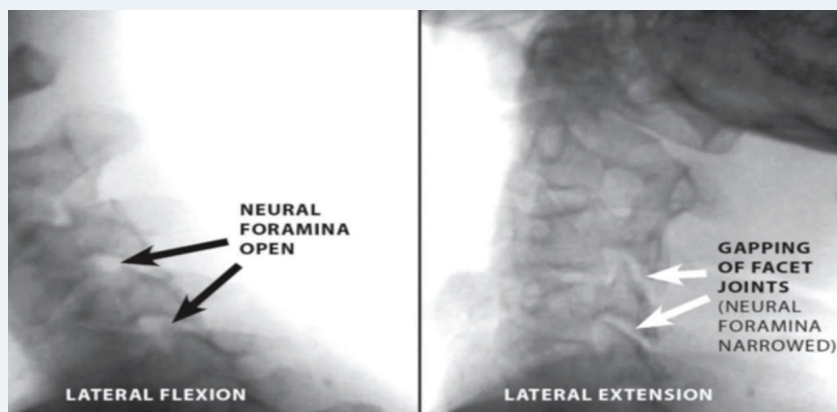


Figure 1. Digital motion X-ray demonstrating multi-level cervical instability. Neural foraminal narrowing is shown at two levels during lateral extension versus lateral flexion.

pathologies thus identified. Many of the injuries demonstrated have been related to motor vehicle crashes. These injuries can be significant sources of pain that can lead to further pathologies and disability.

Defense counsel have argued that the DMX is not accepted in the healthcare community. In fact, numerous court rulings strongly support its acceptance.

- In the landmark 1976 case, *Hughes v. Denny's Restaurant*, 328 So.2d.830 (Fla 1976), the Florida Supreme Court opined that when medical art is advanced to the point that new evidence becomes available, and the evidence was not, and could not have been, previously known, the judge may grant a modification where the modification is supported by the evidence. In the *Hughes* case the evidence was cineradiography, which is digital motion x-ray.
- In 1997, the Colorado Court of Appeals reviewed *Tran v. Hillburn*, 948 P.2d 52 to determine the admissibility of two scientific tests, one being videofluoroscopy, which is a digital motion x-ray. The appellate court found that videofluoroscopy (DMX) was accepted within the applicable scientific and

chiropractic community. In addition, the technology met the evidentiary Frye requirements, and the technology was properly admitted at trial. The court also concluded that the chiropractic profession can serve as the relevant scientific community for purposes of the Frye test. Any dispute between the chiropractic and medical profession regarding videofluoroscopy goes to the weight of the evidence, not its admissibility.

## WHO USES DMX?

Digital motion x-ray is used by many chiropractors to evaluate static states and dynamic movement. Other healthcare practitioners, e.g., neurosurgeons, physiatrists, and dentists have recommended DMX in my practice. Frank and Perrin (2015) mentioned DMX as the "new hope" for postwhiplash migraine headache patients.

## PATHOLOGY IDENTIFIED WITH DMX

**Reversal of cervical curve or cervical kyphosis** has been shown to result from car crashes (Grauer, Panjabi, et al., 1997). This pathology has been shown to lead to pain, spasms, increased arthritis, irritation of the spinal cord, and even vascular

disturbances (Bulut et al., 2016; Iyer et al., 2016; Kong et al., 2013; Shimizu et al., 2005; Moon et al., 2015).

The normal biomechanical shape of the spine is very well documented and established. An abnormal sagittal alignment of the cervical spine changes its mechanics and can increase or decrease pressure into areas that were not meant to withstand new loads. Some of the resulting physiological changes include (Wei et al., 2013):

- + decreasing vascular supply to the disc
- + increase of arthritis and pain
- + pulling of the spinal cord over the posterior vertebral bodies with irritation and abnormal blood flow
- + increased pressure on the posterior spinal ligaments leading to further instability
- + increased pressure on the facet joints

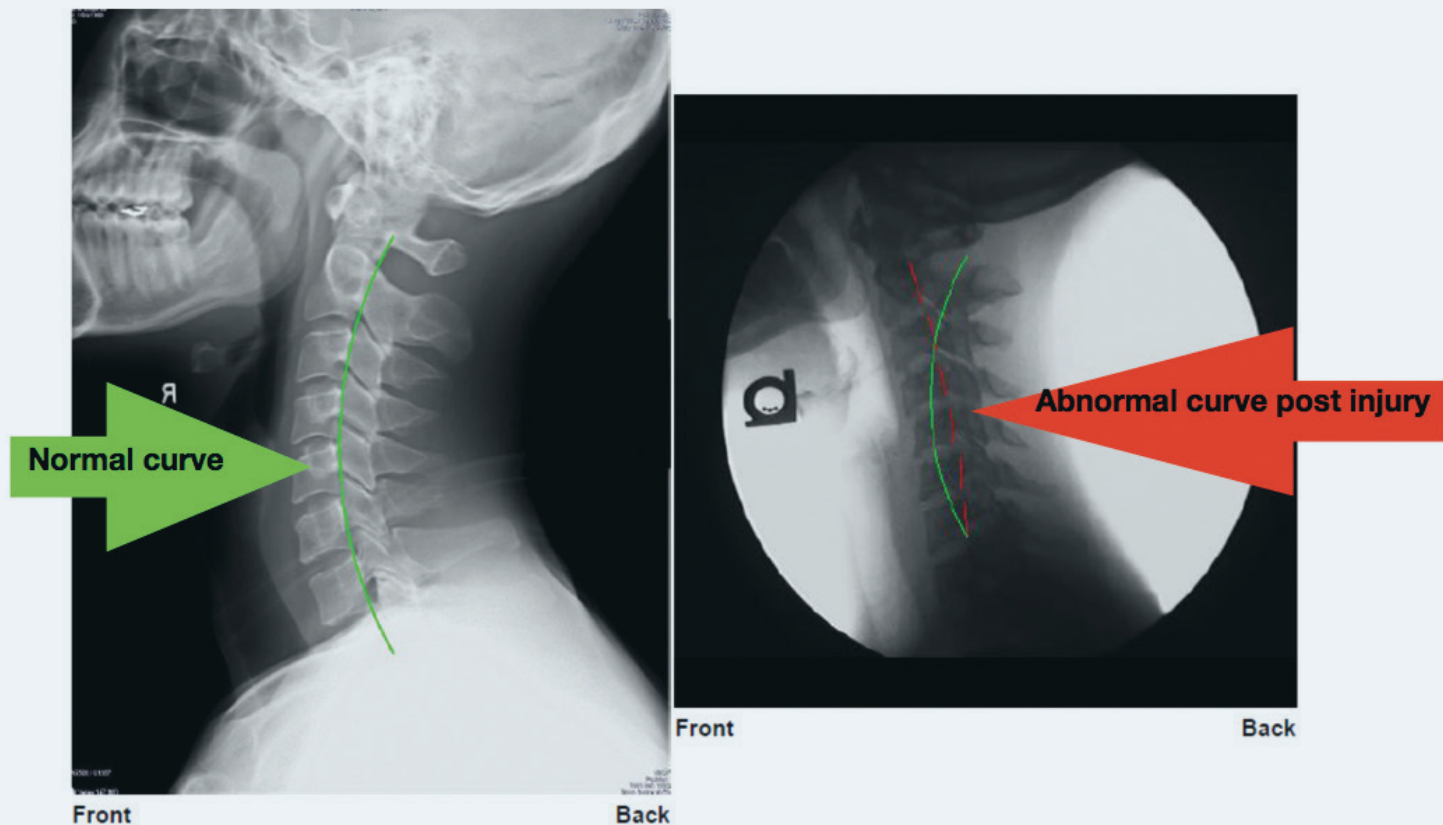
In our office we use computerized radiographic mensuration (measuring lengths, areas, volumes) analysis (CRMA) to compare an injured spine to normal mechanics. This provides objective documentation of loss of cervical curve or kyphotic angulation (Fig. 1). This way we can better treat the patient, educate on what these injuries mean, and apply the appropriate treatment to improve sagittal alignment. We have found that a particular conservative technique known as chiropractic biophysics (CBP) can restore the cervical curve.

**Cervical instability** is defined according to the American Medical Association (AMA) guidelines as an over 3.5 mm translation and/or 11° of angulation (AMA, 5th Ed.). “Clinical instability is defined as a significant decrease in the capacity of the stabilizing system of the

spine to maintain the inter-vertebral neutral zones within the physiological limits of no neurological dysfunction, no major deformity, and no incapacitating pain” (Punjabi, 1992).

DMX can determine if ligaments are holding cervical vertebrae in place, minimizing the amount of movement into the spinal canal, looking at real-time visualization of spinal stability through numerous planes, such as a nodding view, flexion/extension view, oblique flexion/extension maneuvers, and open-mouth lateral movement to analyze multiple ligaments in multiple areas of potential pathology in the cervical spine. Compare this to static images, usually just flexion extension views on the sagittal plane. (Fig. 1)

Cervical instability can be a permanent injury with increased pain and disability. As with a torn anterior cruciate liga-



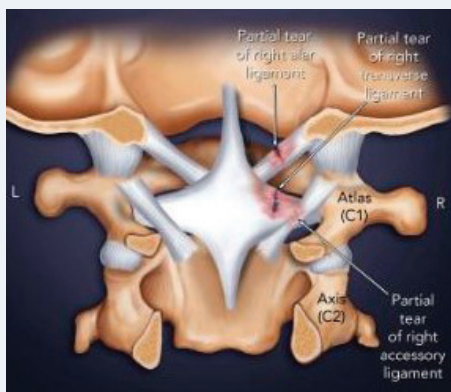


Figure 3. Open mouth view of cervical spine. Used with permission of Katz Chiropractic and Rehabilitation.

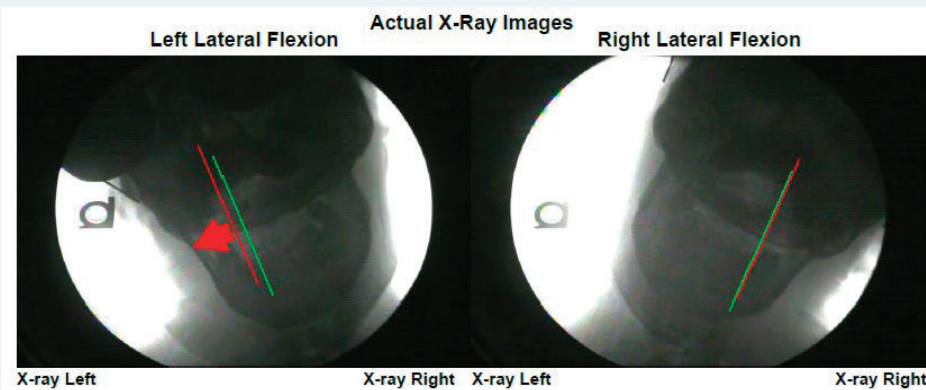


Figure 4. DMX image of cervical spine lateral motion left and right. Used with permission of Katz Chiropractic and Rehabilitation.

ment (ACL), cervical instability is the result of a soft-tissue injury. Being able to show how bones of the neck protect the spinal cord is essential for appropriate treatment and care after trauma. Using DMX in cervical injury also provides the appropriate documentation of injuries from the trauma. (Fig. 2)

**Upper cervical instability** occurs between the occiput (C0) to C2 (second cervical vertebra). These injuries can lead to dizziness, headache, spasm, pain, and disability. They can be very difficult and complicated to treat. These injuries have been well documented in the literature to occur in motor vehicle crashes (Mustafy, Moglo, et al., 2016). In fact, the position of the individual's head during impact can increase the likelihood of an upper cervical ligament injury. One of the best views to fully appreciate upper cervical instability especially at the alar, transverse, and accessory ligaments (Figure 3) is the anterior to posterior open-mouth view with lateral bending, through a full range of motion on the digital motion x-ray.

In our office, we use digitization software to measure how far the lateral mass will slide over the end of C2. We also measure the periodontal space to determine if this area is

stable, or unstable. This gives objective documentation of which ligaments may be injured and how the patient's pain and symptoms correlate to the subject of finding (Figure 4).

## CONCLUSION

Individuals who have chronic or acute pain after trauma need to be fully evaluated. The LNC should seek all the necessary documentation and diagnosis. In some cases, not utilizing DMX can result in a misdiagnosis or under-diagnosis, setting the patient up for long-term pain and disability. A diagnosis of "pain" or "whiplash injury" does not explain what injuries actually occurred from trauma. Here are a few links from our office showing injuries that were missed on static X-ray and MRI. Both individuals were in car crashes:

<https://www.youtube.com/watch?v=0RfALcPvxN4>  
(Accessed on 5/22/2017)

<https://www.youtube.com/watch?v=sgyycWhUv3E>  
(Accessed on 5/22/2017)

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# Rebutting Motions to Strike or Limit Nurse Life Care Planning Testimony: Qualifying under Daubert or Frye

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## WHAT'S A MOTION IN LIMINE?

A motion *in limine* is a motion filed by a party to a lawsuit which asks the court for an order or ruling limiting or preventing certain evidence from being presented by the other side at the trial of the case.

*limine*, Latin, "threshold," i.e., at the beginning

## INTRODUCTION

The back story is sometimes as interesting as the story itself. This started as a simple post on a life care planning listserv asking for ideas on how to help write a rebuttal to a motion *in limine*<sup>1</sup> to limit a nurse life care planner (NLCP) scope of testimony and void the majority of her plan's elements, alleging that she was not qualified to offer independent opinions.

Over thirty responses came flying back. We, all contributing respondents to the original post, offered "30 Tips in 30 Minutes" at the American Association of Nurse Life Care Planners (AANLCP) Conference in 2017 to gratifying acclaim. We publish it in this nursing journal to reach a wider audience of nurses in life care planning and those who retain them. The life care planner can use evidenced-based sources as foundation to help the attorney client draft counter-motions or rebuttals to motions to strike an expert NLCP, limit testimony, defend a Daubert / Frye challenge, structure reports, answer deposition questions, and provide effective trial testimony.

## FOUNDATION

### RN Licensure and Career

The American Nurses Association's Nursing: Scope and Standards of Practice (3rd ed.) (ANA, 2015) is the authoritative resource on RN professional role and practice. It grants RNs great powers and responsibilities that are often unfamiliar to others, explaining that nurses not only carry out interventions prescribed by other healthcare providers, but also independently establish and deliver/delegate plans of care. Its definition of nursing states,

*"Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of the human response, and advocacy in the care of individuals, families, groups, communities and populations."*

This describes exactly what nurse life care planners do when they develop a plan of care. The American Nurses Association (ANA) recognizes that "all nursing practice, regardless of specialty

role or setting, is fundamentally independent practice." (ANA Scope and Standards 2015). Emphasize that the autonomy of RN practice mandated by nurse practice acts originates with this document. Its principles are binding on all RNs regardless of jurisdiction.

### ANA Social Policy Statement

The American Nurses Association published Nursing's Social Policy Statement in 2010. This text describes professional nursing's accountability to the public, and identifies the processes of self-regulation, professional regulation, and legal regulation. (ANA, 2010).

Your education, experience, and skill level before becoming a nurse life care planner play an important role in the foundational basis for your plan provisions. Nurses are employed across the gamut of healthcare- and non-healthcare-related positions, typically working in many areas throughout our careers. We can use all this as a foundation for our recommendations, e.g., "In my clinical experience as a case manager working with persons with this condition ..." "Having cared for over 1000 burn cases in my clinical career ..."

1. A motion filed by a party to a lawsuit which asks the court for an order or ruling limiting or preventing certain evidence from being presented by the other side at the trial of the case. Latin *limine*, threshold, i.e., at the beginning.

## Credentials

Credentialing is a dynamic process that determines qualifications to perform a given responsibility safely, effectively, and legally. (CMSA, 2008).

Certification is part of credentialing, measuring education and experience against community and national standards, NPAs, and statutes. Certification is the formal recognition of knowledge, skills, abilities, judgments, and experience demonstrated by achievement of formal criteria by a profession (ANA Social Policy, 2010).

Obtaining and maintaining certification requires experience, and unlike a listing in an experts' directory, experience cannot be bought. Maintaining a credential shows you have maintained currency over time. The life care planner may be asked about the criteria and cost of certification and renewal; be sure to know.

As a NLCP, you're a nursing specialist with certification and credentials. Specialization is a mark of the advancement of the nursing profession and assists in clarifying, revising, and strengthening existing practice. This not only imposes a greater duty to act and to do so competently, but also increases our accountability. (ANA Social Policy, 2010).

## Curriculum Vitae

Your *curriculum vitae* is always part of discovery. Sometimes a CV must stand alone and speak for you because a court may not allow you to defend opinions before ruling on a motion *in limine* to exclude, so it must reflect all your pertinent expertise. In order to qualify as an expert in federal court, an expert witness must be qualified by knowledge, skill, experience, training or education (Federal Rules of Evidence, Rule 702).

Use your professional CV to make those qualifications well-known. For example, in addition to listing education and work experience, consider outlining

*The ANA Scope and Standards of Professional Nursing Practice are authoritative statements of the duties that all registered nurses, regardless of role, population, or specialty, are expected to perform competently. (ANA, 2015).*

certifications and the work required to obtain them, professional associations and any positions held, any professional awards received, and research conducted. Refer to AANLCP Journal of Nurse Life Care Planning Fall 2013 for more information on qualifying as an expert and a worksheet on outlining these qualifications in developing a CV reflective of expertise. The AALNC also has an online course with a module on expert witnessing (AALNC, 2017).

## Case Management: CCM, RN-BC

Case management is a collaborative process of assessment, planning, facilitation, and advocacy for options and services to meet an individual's health needs through communication and available resources to promote quality and cost-effective outcomes (CMSA, 2002).

Care management, a professional competency of all registered nurses since the 1900s (ANA Care Coordination, 2012), includes

- ♦ assessing functional level and impairment
- ♦ identifying an individual's needs and problems, current capacity and support
- ♦ developing a plan of care that addresses the needs and problems
- ♦ incorporating services to enhance any current support system

- ♦ identifying and arranging for coordinated service delivery
- ♦ monitoring changes in condition and circumstances, and provision of services
- ♦ reassessing the person's needs on a regular basis (NCOA, 1988).

Many case managers work in areas that address catastrophic illness and injury, providing excellent experience in the foremost foundation for life care planning. The relevant credentials for case management are the CCM (Commission for Case Management Certification) and the RN-BC (American Nurses Credentialing Center).

## CNLCP®, CLCP, LNCP-C

A life care planning credential reflects achievement of specialized knowledge, experience, skills and clinical judgment, with proficiency more advanced than basic licensure. (Nurse Life Care Planner Certification Board, 2017) This can help a nurse qualify as an expert with specialized knowledge. Depending on the state in which you testify, your expert testimony must meet either the Daubert or Frye standard for admissibility (JuriLytics, 2017) If you testify in Federal Court, Daubert applies. (Legal Information Institute, n.d.)



To meet the Daubert standard, your testimony must depend whether your methodology is scientifically-based and can be applied to the facts of the case. (Legal Information Institute, n.d.)

To meet the Frye standard, your testimony depends on whether or not the method you use to obtain your evidence is generally accepted by experts in your field. (Legal Information Institute, n.d.)

Additionally, earning and maintaining a specialty life care planning credential demonstrates a commitment to continuing education in the nurse life care planning specialty.

### Rehabilitation: CRRN

The CRRN (Rehabilitation Nursing Certification Board) credential demonstrates experience and ongoing education in rehabilitation nursing concepts and resources. When questioned about how you can make recommendations for therapies and evaluations you can say, “I have held the CRRN credential since (date). I am experienced and qualified to make rehabilitation assessments and recommendations on ...” You may be asked whether the person with catastrophic injury has reached a medical endpoint and thus will not need rehabilitation

services. Your best answer is, “Rehabilitation also addresses maintaining current level of function and preventing or slowing anticipated declines in function; as a certified rehabilitation nurse, I routinely apply these key concepts in nurse life care planning for persons with catastrophic conditions.”

### AANLCP Role Delineation Study

A Survey of Nurse Life Care Planners: A Role Delineation Study in the United States is a valuable research study for all nurse life care planners. This study is important because it rates critical components of nurse life care plans and the tasks necessary for competent job performance (Manzetti, Bate, Pettengil, 2014)

## STANDARD METHODOLOGY

Daubert requires that you demonstrate a consistent methodology. Ours is the nursing process: A good answer is to start with a brief synopsis of the nursing process as we use it:

- Assessment (of medical records, personal observation, data from collaboration with treaters, etc.)
- Diagnosis (using NANDA-I, scientifically validated)

- Planning
- Interventions / delegation / provisions
- Evaluation as appropriate

The testifying NLCP must be prepared to explain this succinctly and powerfully, and to describe its application in the case. Be prepared for questions such as, “What if you cannot do a personal assessment because you’re working for the defense?” An effective answer is that you were not asked to prepare a life care plan in that case, but to critique the plaintiff life care plan for methodology, accuracy, individualization, and appropriateness, consistent with education, experience, and the nursing process that are your bases for practice.

Part of the core competencies for all registered nurses involves using evidenced-based interventions and strategies to achieve client outcomes; refer to the ANA Scope and Standards of Practice (2015) as foundation for this. Emphasize that we use a standard assessment and uniform methodology for all clients and applications, and that the process recognizes and accommodates each individual patient’s and family’s needs.

You will be asked whether your methodology is congruent with accepted practice.

While it is “... incumbent on the life care planning professional to assure that services offered are consistent with standards of the profession and the methodologies that have been endorsed by practitioners” (Weed & Berens, 2010), NLCPs use the nursing process as our methodology. We aren’t necessarily experts in another discipline’s; another discipline’s adherents aren’t expected to know ours.

### Relying on Records/Refuting Hearsay

One common objection to life care planning is that it relies on hearsay, defined in law as the report of another’s

words by a witness, and usually disallowed as evidence. However, testifying experts should know that they are entitled to rely upon records, such as medical records, other reports, and their collaboration with other professionals to form opinions. This principle is found in Rule 803 of the Federal Rules of Evidence, Exceptions to the Rule Against Hearsay, which may be reviewed at [https://www.law.cornell.edu/rules/fre/rule\\_803](https://www.law.cornell.edu/rules/fre/rule_803).

### Nurse Life Care Plan Costs

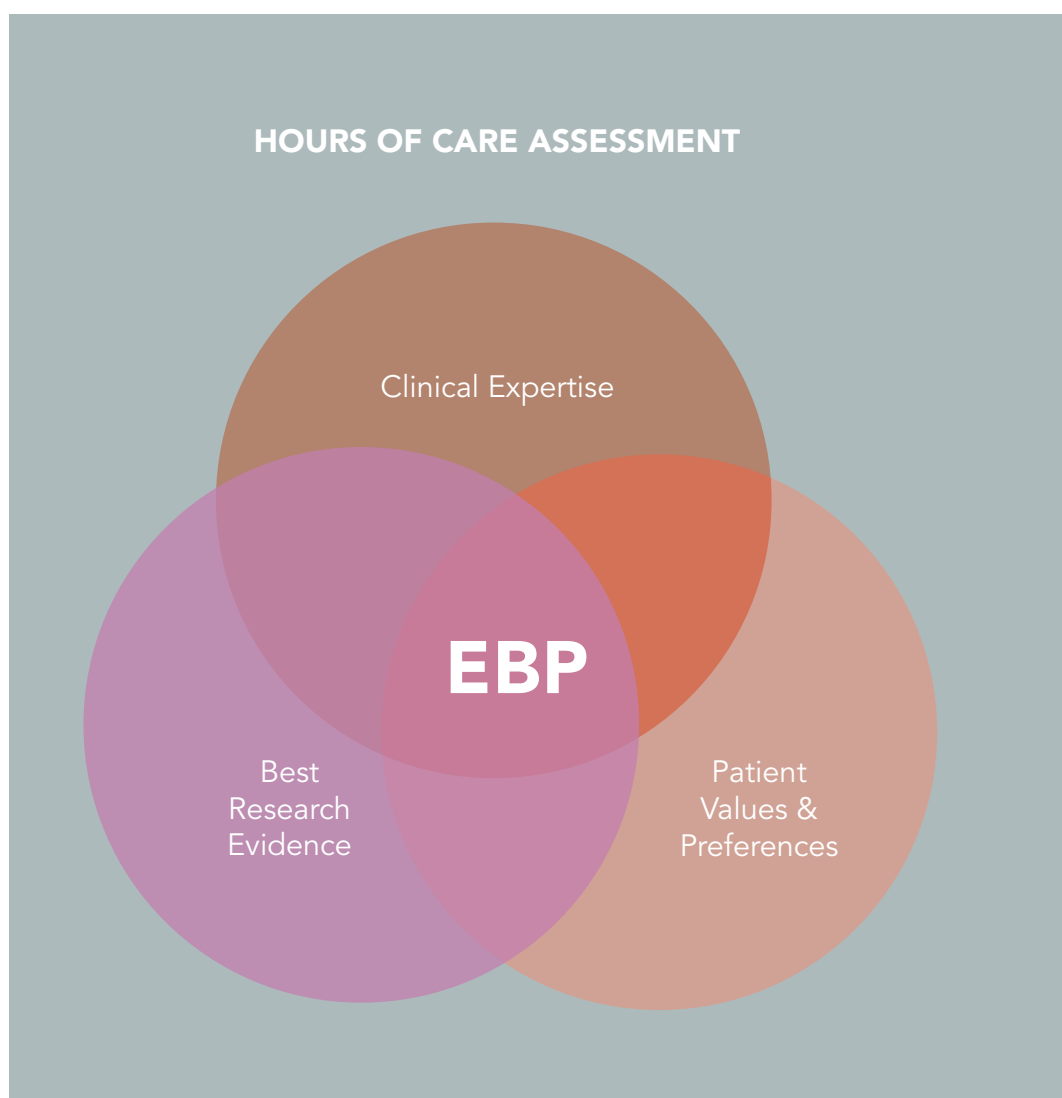
Another common objection is that LCP costs are not the same as previous billed or reimbursed costs. However, life care plans are driven by need, not cost, and are based upon private-pay rates, not negotiated rates between providers and payers. We allow for item and service frequency and duration as appropriate for the current treatment plan, national clinical guidelines, and authoritative or peer-reviewed texts/articles. We do not depend on limits imposed by collateral sources, such as preauthorizations or allowances by any insurance coverage, including Medicare and Medicaid.

When questioned about using past billing or reimbursement as a foundation for costs, remember this:

*Life care plans based upon funding considerations rather than needs of the injured may endanger both the health and well-being of patients who may require more care, equipment, or services than collateral or financial resources will allow.*

“Best practices for identifying costs in life care plans include:

- Verifiable data from appropriately referenced sources
- Cost identified are geographically specific when appropriate and available



- Non-discounted/market rate prices
- More than one cost estimate, when appropriate.” (Johnson, 2012)

Remember that collateral resources require physician prescription for many items only as a financial control mechanism. This constraint will not apply when the payment source is not an insurance plan.

Individuals with Disabilities Education Act (IDEA) provisions are free. Be aware of time or content limits if you

are providing for more services over a life expectancy. Also note that IDEA and other mandated services for children can complement anticipated care but often do not cover it well.

Be prepared to explain how you have taken into account any jurisdictional considerations or requirements for payment sources, such as IDEA. Also be aware of applicable MSA requirements for workers’ compensation and other liability obligations.

2. Every state, the District of Columbia and the US Virgin Islands have all recognized the safety and benefits of direct access to physical therapy by removing from their statutes some or all referral requirements or provisions for a physical therapy evaluation and treatment. (APTA.org; 2015) Direct access means the removal of the physician mandated by state law to allow physical therapist services for evaluation and treatment. For more information, see [http://www.apta.org/uploadedFiles/APTAorg/Advocacy/State/Issues/Direct\\_Access/DirectAccessbyState.pdf](http://www.apta.org/uploadedFiles/APTAorg/Advocacy/State/Issues/Direct_Access/DirectAccessbyState.pdf)

**Effectiveness--- Continuing Existing Effective Modalities:**

The life care planner “Identifies unwarranted or unwanted treatment and causes of healthcare consumer suffering in the current plan of care.” (AANLCP, 2015). Explain that current medical records and personal assessment findings can justify both continuing and replacing past or current medical treatments.

The most valuable plan is the one that the family will implement based on their needs and preferences. Be prepared to explain why you chose to continue current effective modalities in the plan based on your assessment, your foundational documents, and collaboration with providers.

Refer to the Scope and Standards of Nurse Life Care Planning for

detailed criteria on planning strategies, interventions and alternatives to attain projected outcomes.

**Providing for Evaluations**

Your provisions may be challenged on both medical foundation and nursing scope of practice. Emphasize that every LCP item is not medical. It is appropriate to make recommendations for items not reserved to physicians only (e.g., surgery, medications, some medical devices) or other professional scope of practice. Examples you may cite include:

- + Massage
- + Medical evaluations and diagnostic services
- + OT, PT, SLP, and other evaluations and services

- + Counseling
- + Home nursing services
- + Lawn care
- + Home maintenance

Also note that the current ANA definition of nursing includes *facilitation of healing* (ANA, 2015). Treatment to facilitate healing requires a correct diagnosis. Recommending, referring, and coordinating professional evaluations that may have been overlooked or were never done properly is a key nursing function. Remember that payers require physician prescription for many items only as a financial control mechanism. This constraint will not apply when the payment source is a settlement, not an insurance plan.

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## Home Care

Determination of skill level, amount, and duration of home care is a nursing decision supported by RN professional nursing licensure, nurse practice acts, standards of practice of both the ANA (ANA, 2015) and AANLCP (AANLCP, 2015), and are described in the AANLCP role delineation study (Manzetti, Bate, & Pettengill, 2014).

Misconceptions to the contrary stem again from payer financial control policies, largely because in the mid-1960s the AMA insisted on a medical framework in return for supporting Medicare and Medicaid (Rice, 2006). However, even though some jurisdictions require physician sign-off on life care plans, including home care provisions, physicians still lack education in making nursing decisions. Check with your attorney client on how to approach this.

## Collaboration

Collaboration is a key component in life care plans, a task function indicated in our role delineation study, and prominent in all life care planning Standards of Practice (Manzetti, Bate, Pettengill, 2014; ANA 2015; AANLCP 2015; International Association of Rehabilitation Professionals, 2009). Collaborating with the individual, the family, treating providers, experts and review of the medical records provides foundation and strengthens the rationales for recommendations. According to the role delineation study, most NLCPs collaborate but do not require physician sign-off on plans. However, some states do require physician sign-off. Check your jurisdiction.

## Include Foundation/Rationale in Tables

Motions *in limine* can result in parts of the LCP being excluded from testimony. For example, comments found below



the tables on resources, references, and other key elements may be excluded. Embedding the foundation, rationale, and references into tables may keep them in play.

Make it harder to remove these key elements. Include a physician name as a resource, reference a textbook or research article in the table or as a linked footnote, cite evidence-based practice or best practices guidelines. *Include these elements in both the narrative and the financial tables because many venues will completely eliminate the narrative report as hearsay and admit only the tables.*

## Reliable Resources to Support the NLCP: A Selection

Including good references supports your plan and adds credibility. At a minimum, know the most respected resources and review the plan for any contradictions.

**Nurse Practice Act** Read it, know it, share it with your attorney client, use it.

**ANA Scope and Standards of Nursing Practice (2015)**

**ANA Nursing's Social Policy Statement (2010)**

**ANA Position Statements** See June 2012, "Care coordination and RN's essential role."

**AANLCP Core Curriculum for Nurse Life Care Planning (2013)**

**NANDA-I Nursing Diagnoses, Definitions and Classification (2018-2020)**

The authoritative resource for making nursing diagnoses based on scientifically-validated evidence. Key quotation regarding developing a treatment plan: "... (basis of) nursing interventions, some of which are dependent, some independent, and some collaborative."

Note overlaps between medical and nursing tasks and similarities in medical and nursing diagnoses. As an example, post-traumatic stress disorder is a medical diagnosis managed in a medical plan of care; post-trauma syndrome



is a nursing diagnosis with validated defining characteristics assessed and managed by nurses.

Be prepared to explain that a taxonomy is a scientifically-validated system to classify information into related groups.

**Nursing Diagnosis Handbook, 11th ed. (Ackley, Ladwig and Makic, 2017)** Created to help nurses develop plans of care, it includes current (2015-2017) NANDA-I approved nursing diagnoses, integrates the NIC and NOC taxonomies, evidence-based nursing interventions, for multiple populations and settings.

**Pediatric Life Care Planning and Case Management (Riddick-Grisham and Deming, 2011)**

**Life Care Planning and Case Management, 3rd ed. (Weed and Behrens, 2009) (4th edition in press)**

**Journal of Life Care Planning**

**Journal of Nurse Life Care Planning**

**MD Guidelines, ODG ODG's** evidence-based guidelines are directly linked to the evidence from cited studies and references, and widely used by federal, state and local governments, insurance plans, TPAs, and allied health organizations.

**AHRQ's National Guideline Clearinghouse** A public resource for summaries of evidence-based clinical practice guidelines, organized by clinical specialty. <https://www.guideline.gov/>

**UpToDate®** Clinical decision support resources, evidence-based treatment recommendations known for improved outcomes, a comprehensive review of the literature and evidence-based treatment recommendations.

## CONCLUSION

It can be unnerving to hear that your hard work is being challenged before it even sees daylight. However, remember that this wouldn't be happening unless it was effective for your client. A motion *in limine* offers you an excellent opportunity for you to defend your qualifications, methods, and opinions. 🍷



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Check Your Answers

## Test Your Case Screening Skills Page 7

### #1 Reject

- Short period of pain & suffering
- Culpable conduct – belligerent behavior
- No permanency
- Already disabled from other conditions

### #2 Reject

- Bruising/bleeding & infection known risk of surgery
- Appendiceal stump syndrome not malpractice
- Exact nature of problem still not identified, so problematic to establish how the problem could have been prevented.
- She has had work-up – is not being ignored.

**SAVE THE DATE**



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