

# EMG SOLUTIONS NEWSLETTER

Edition 4

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## Patient Case Report - Long Thoracic Injury

For this case report, the patient was a 22-year-old male carpenter who reported shoulder pain after an unassuming day of work. He told me that he was not sure of a particular injury that workday but was awakened that night by sharp shoulder pain. The following days and weeks he noticed that it had not improved and went to see an Orthopedic doctor for advice. In his evaluation with the Orthopedic doctor and

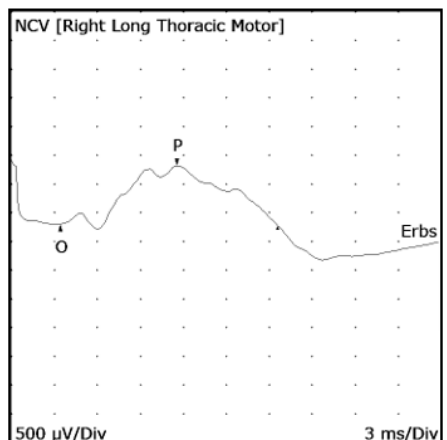
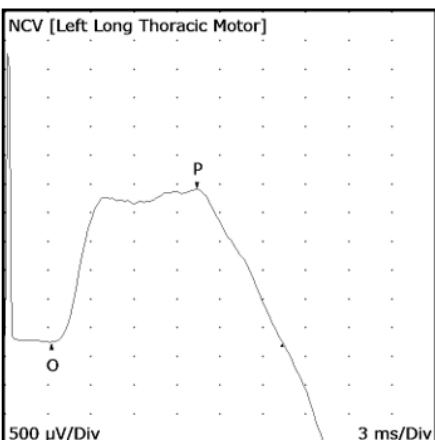
myself there was noticeable winging of the scapula which can be a sign of an issue with the long thoracic nerve which innervates the serratus anterior. This is not a common pathology and requires extra testing to help diagnosis.

Interestingly enough, through nerve conduction study and needle EMG there were marked impairments present in the long thoracic nerve. When looking at the NCS study of the serratus anterior, there was >60% difference in amplitude for the response on the affected side when compared to the contralateral side and needle EMG further confirmed an issue that was affecting the axons of the right long thoracic nerve.

*Interestingly enough, through nerve conduction study and needle EMG there were marked impairments in the long thoracic nerve.*

Discussion with the doctor who referred this patient after the test revealed that the patient will be treated conservatively with Physical Therapy and potentially injections (should the patient desire) over the next year. He was also referred out for an MRI to ensure that there was not something like a tumor present which could also affect this nerve. The goal would be to see improvements over this time because the referring doctor does not generally recommend surgery for this condition.

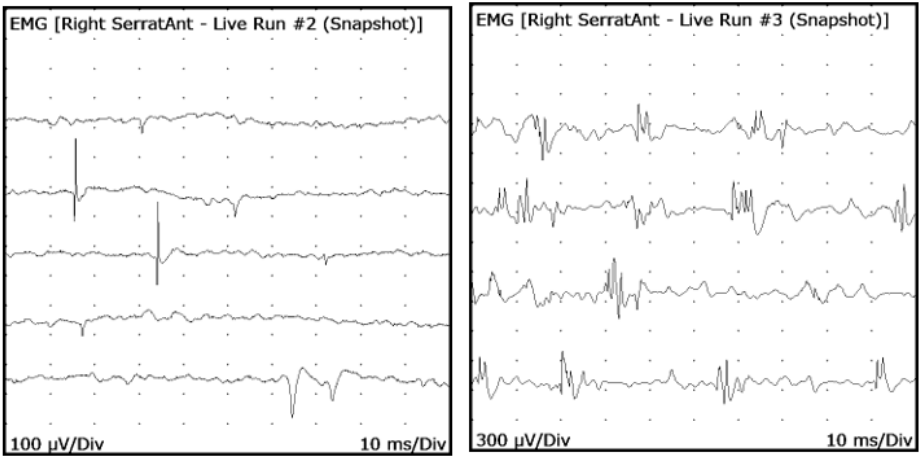
**Below are the wave forms from the abnormalities found in this case**



**Note the much smaller response and change in waveform morphology for the affected (right) side compared to the nonaffected**

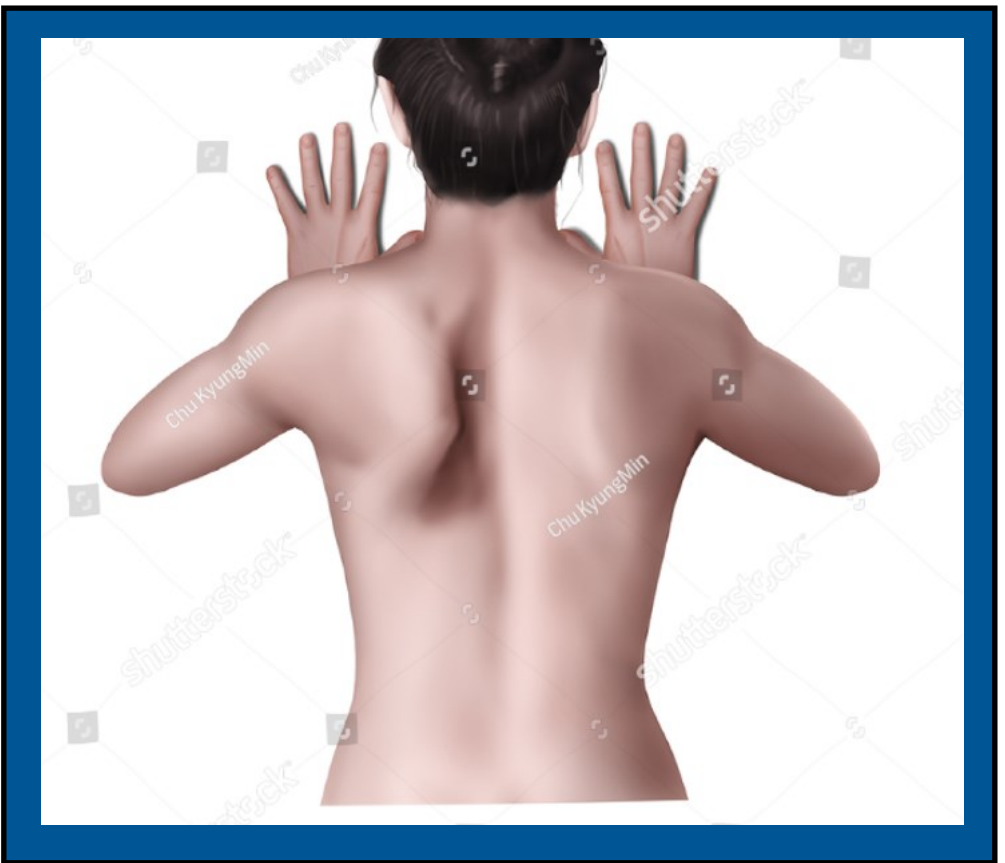
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## Continued Long Thoracic Nerve Case Study:



There are signs of active axon loss through increased spontaneous activity (waves at 100 uV/div) and signs of recovery via nascent polyphasic waveforms (waves at 300uV/div)

### Physical Presentation



'Images capture by shutterstock'

In this image, the scapula on the left is displaying scapular winging where in an individual with no deficits of the serratus anterior, would be able to maintain close proximity of the scapula with the rib cage (such as the right scapula in this image).

This long thoracic nerve case study submission was completed by Addison Davis, PT,DPT. He currently lives in Chattanooga TN and joined the residency in October of 2023. Addison has been a great addition to the EMG Solutions family and keeps us all laughing! He is a lifelong learner and desires to further the physical therapy profession by investing in students. Learn more about Addison and his path to joining the EMGS residency in the RESIDENCY SPOTLIGHT!

# Resident Spotlight



## Addison Davis, PT, DPT Resident



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## Residency Spotlight Questionnaire

- ◆ Where did you receive your DPT degree and what led you to the PT profession?

I graduated from South College with my DPT. My path to becoming a PT was quite a windy road. I began undergrad thinking I wanted to be an engineer to make prosthetics. At the same time, I was in a band that was doing well so I did the only logical thing a 19-year-old can do and tanked my grades so I couldn't return in the fall. The band was great until I realized that all the other bands I thought had "made it" were also eating Taco Bell for every meal. I ended up working at a Starbucks barely affording rent and living off end of day leftover pastries. My dad met with me, knowing that I was struggling and thought it might be best if I moved from Wisconsin to Tennessee to live with my grandfather and work in a factory until I get my feet back under me. I ended up making truck tires for about 5 years and met my amazing wife at that time. I happened to run in a Wounded Warrior Race and there was a veteran with bilateral lower extremity prosthetics. It sparked the part of my brain that was interested in helping people and getting them back to being active. I ended up taking classes at a community college with many long nights getting my grades up. I was able to transfer and move to UT-Chattanooga and finished my bachelor's there. The rest is history.

- ◆ When did you first learn about clinical electrophysiology offered as a specialty for Physical Therapists.

After practicing as an acute care PT through the pandemic I found myself looking for a way to continue learning and growing within the profession. I was doing research on the APTA website regarding specialization and came across clinical electrophysiology at that time.

- ◆ At what point did you become interested in EMG and NCSs?

I have always enjoyed trying to find answers to issues patients have that they have not been able to reach a meaningful conclusion that would lead to them getting relief. While shadowing Randy Hulet, I realized fairly quickly that there were patients getting answers to questions that had plagued them for months or even years.

- ◆ What made you decide to go the Residency route vs. independently completing study and earning mentor hours?

The thought of attempting to tackle this on my own without expert guidance through residency seemed to be a huge task that I don't think I was prepared for. Also, hearing about the way that the team at EMG Solutions will bounce ideas off of each other on a day to day basis really made me convinced this was the place for me.

- ◆ What have you loved most about the residency?

As I mentioned earlier, I really enjoy getting the answers to questions that patient's have when they haven't been able to figure out why they are having pain or numbness. Additionally, if we are being honest, this isn't always the most comfortable test to have done. I really enjoy getting to the end of a test and having the patient feel like the test was better than they had imagined or even heard from their friends.

◆ Is there anything you have disliked about the residency?

There is a fair amount of travel which can be hard. Also, like any healthcare practice the documentation can be daunting at times. Documentation gets better as you get more reps, but initially it can be pretty scary.

◆ What is the most interesting case you have tested and what did you learn?

There have been a few cases of long thoracic nerve injuries with winging present. It was neat to be able to put data into something I would see from time to time in traditional practice.

◆ What are words of advice you would like to share with potential or future residents?

Shadowing can be a great way to connect with the team and see what we do. I'd highly recommend that.

◆ Has the residency met your expectations? How?

Yes, it's been great to work with multiple mentors and get different perspectives on cases that we see.

◆ Is there anything else you would like to share with potential residents or those considering the EMG Solutions Residency?

I think ideally you would come into this ready to learn and have consistent feedback that will ultimately refine you into a better clinician.

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Thank you Addison for taking the time to answer these questions. We appreciate having you in the EGMS family and grateful for your hard work and dedication to excellence!

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## WELCOME OUR NEWEST RESIDENT



Marshall Lassiter, PT, DPT

Marshall comes to our residency from William Carey University. He recently graduated May 2024 and has been following the EDX SIG meeting virtually for the past couple of years to learn more about the people and the landscape of clinical electrophysiology practice among physical therapists. Marshall also invested time to shadow with our clinicians and completed his NPTE in July 2024. Marshall joined our residency and team on August 19, 2024!

Help me not only welcome Marshall to the team, but congratulate him on his Wedding Celebration this August as well!!!

**Congratulations Marshall and Welcome to the Team!**



A BIG Thank You goes out to our readers that send feedback about the Newsletter. I am happy to hear that it is beneficial to read about our residents. Each resident comes from different backgrounds and regions, but most importantly they provide a snapshot of the EMG Solutions residency as well as how our team functions to promote success, excellence, and belonging!

We are also excited about accepting Physical Therapy students for clinical rotations that may consider the residency for clinical electrophysiology as a future path. Our clinical rotation will provide clearer insight to the specialty practice of EMG and most certainly boost your differential diagnosis skills!!

Please contact us if your school is interested in guest lectures and/or labs for EMG/NCS!



The EMG Solutions residency is a great path to consider if becoming board certified in the specialty of electrophysiology is your goal. This residency is a paid, 13 month, fully immersive program that sets residents up for success with one-on-one mentorship, and a time-line to prepare and pass the board exam. The EMG Solutions residency has a 100% first time pass rate and retains most graduates for employment. EMG Solutions also offers a tuition forgiveness plan over 3 years of employment, and bonus earning potential after achieving ECS. Learn more or apply to our residency at: [emgsolutions.com/residency-program/](https://emgsolutions.com/residency-program/).



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If you have any questions or need direction for submitting your application, please contact me at [cathy.digiacom@emgsolution.com](mailto:cathy.digiacom@emgsolution.com)

I am here to help you reach your goals!

## Eufaula Physical Therapy + Wellness is HIRING!



A sister company of EMG Solutions is hiring for a Physical Therapist position in Beautiful Eufaula, Alabama. If you love the outdoors and lake living, this is the place for you! This outpatient clinic is the physical therapy hub of this great town and provides quality services from Sports Medicine to Certified Hand Therapy. Other services include: Vestibular Care, Amputee care, MSK US, EMG/NCS, manual therapy, and more!

Contact me if you or someone you know may be interested in this position. [Cathy.digiacom@emgsolutions.com](mailto:Cathy.digiacom@emgsolutions.com)