

Chronic Musculoskeletal Pain

“Chronic musculoskeletal pain is often due to a dysfunction of the sensorimotor system. Probably the most effective tool at objectively quantifying sensorimotor dysfunction is through surface EMG.”

-Phil Page, MS, PT, ATC, CSCS
Benchmark Physical Therapy
Baton Rouge, LA

CONDITION

Chronic Musculoskeletal Pain (CMSP) usually occurs in the low back, neck, shoulder or knee region that lasts for more than a few months, or keeps reoccurring. It is generally not associated with any structural problem, such as a torn muscle or ligament; instead, CMSP is related to a change in the function of the musculoskeletal system.

Phil Page, PT, MS, ATC, CSCS from Benchmark Physical Therapy in Baton Rouge, Louisiana treats patients who suffer from CMSP based on the teachings of the late Vladimir Janda, MD. Dr. Janda taught that the central nervous system and muscular system function as one system, commonly referred to as “The Sensorimotor System.” The “Janda Approach” focuses on finding and treating functional injuries rather than structural injuries as the cause of chronic pain.

SITUATION

CMSP is a very difficult diagnosis to manage and can be very costly, according to Page. There is no real “structural” solution, such as surgery that can be used to assist with this situation. Conservative treatment is the only effective solution.

Page was interested in finding a tool that would help him “see” the functionality of muscles, thus a window to “The Sensorimotor System” for evaluating and treating CMSP through the Janda Approach. Dr. Janda used Noraxon surface EMG to quantify muscle firing patterns and evaluate muscle balance. “Dr. Janda believed that you could have the strongest muscle in the world, but if the muscle does not turn on or off at the right time, you have dysfunction,” said Page. “We use surface EMG to quantify those patterns that are difficult to see.”

SOLUTION

Page believes that therapists can use EMG data to dramatically improve patient outcomes. “Surface EMG is a non-invasive tool that is fast, easy and painless to connect to patients,” explains Page. “With EMG, we are able to obtain a visual representation of exactly what is going on with the neuromuscular system that you can’t otherwise see. This helps both the therapist and the patient understand the problem, enabling the therapist to make a better, more thorough and accurate diagnosis. It can confirm a physical evaluation with valid data and drive a more effective treatment regimen.”

Phil Page chose Noraxon’s SEMG products based upon their reputation in the field, and the quality and reliability of their technology. “We continue to rely on Noraxon to deliver responsive customer support and technical service. Their commitment to serving our needs is excellent.”

RESULTS

Page has integrated surface EMG into the “Janda Approach” and educates practitioners on how to use EMG data to validate their therapy techniques through workshops and seminars. It has become an important tool when treating patients with CMSP. It enables the identification of muscle symmetry and firing patterns to validate a physical evaluation and prescribe appropriate treatment.

“We found that SEMG helps to ‘diagnose’ problems quicker and thus more effectively direct our treatment.” Page concludes, “By using surface EMG in clinical practice, therapists can become better clinicians by providing a more accurate diagnosis to direct a more effective treatment plan.”

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