Improving diagnostic certainty

By David Marcarian, MA

Another major benefit of the test is that you are performing two tests in one period of time, allowing for billing two studies have shown how combining both tests increase sensitivity and specificity.

You can see clearly how far a patient was bending when muscles were firing, and you can further see clearly that the patient’s dynamic surface EMG data correlate highly with the findings of the range of motion test. Numerous research studies have shown combining both tests increase sensitivity and specificity.

What makes it a foolproof method of measurement from an attorney’s standpoint, is that no one can question the natural response to pain in motion, or muscular “bracing and/or guarding.” The dynamic surface EMG is a measure of this guarding response.

Dynamic surface EMG adds greater objectivity to range-of-motion measures by assessing effort and the body’s natural response to pain in motion, or muscular “bracing and/or guarding.” The dynamic surface EMG is a measure of this guarding response.

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Until the development of simultaneous measurement of dynamic surface EMG and range of motion, it was nearly impossible to establish the presence of soft tissue injury and expose the symptom magnifier.

In this state, the muscles should brace and guard as a natural defense mechanism to the pain they would experience when range of motion is limited. Surface EMG effectively measures the muscular bracing and guarding.

By simultaneously measuring and recording range of motion along with dynamic surface EMG, you can see the anatomical limitations of motion along with the physiological response to this motion.

The principle is simple: A truly injured patient would demonstrate limited range of motion. In this state, the muscles should brace and guard as a natural defense mechanism to the pain they would experience when range of motion is limited. Surface EMG effectively measures the muscular bracing and guarding.

Conversely, if muscular bracing and guarding occurred concurrently with limited range of motion, this would support the patient may be a symptom magnifier.

If there is little or no muscular bracing and guarding as measured with the surface EMG, it would lead the examiner to conclude the patient may be a symptom magnifier.

By simultaneously measuring and recording range of motion along with dynamic surface EMG, you can see the anatomical limitations of motion along with the physiological response to this motion.

Dynamic surface EMG adds greater objectivity to range-of-motion measures by assessing effort and the body’s natural response to pain in motion, or muscular “bracing and/or guarding.” The dynamic surface EMG is a measure of this guarding response.

What makes it a foolproof method of measurement from an attorney’s standpoint, is that no one can question the validity of either test.

You can see clearly how far a patient was bending when muscles were firing, and you can further see clearly that the patient’s dynamic surface EMG data correlate highly with the findings of the range of motion test. Numerous research studies have shown combining both tests increase sensitivity and specificity.

Another major benefit of the test is that you are performing two tests in one period of time, allowing for billing two codes in the same period of time.

When you consider that the entire test from start to finish (minus setup) is less than 6 minutes, it becomes clear that the test not only provides better and more data, but that it is financially feasible for any clinic to implement.

To add to this, there is a CPT code for dynamic

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With a significant increase in audits as insurers and Medicare attempt to cut healthcare costs, the use of objective data through physiologic measures is crucial to properly document the patient's condition throughout care.

Not only does it protect you, it also provides a powerful manner of developing a personal injury-based practice while keeping patients focused on their function instead of symptoms.

There is nothing more powerful to an attorney than a piece of solid evidence which is objective and not subject to personal bias or skewed by opinion.

Due to numerous court cases where dynamic surface EMG data was established — and now allows judges to admit it as evidence and have it considered by the court or jury when making a decision — cases are settling much faster by having this objective data.

In this data-driven society, patients are beginning to demand technology in their healthcare professional’s office. Which doctor would you rather see?

The one with the high-tech, objective computer-based tools to show you what is happening inside your body, or the one that palpates your spine and tells you what he believes to be wrong?

David Marcarian, MA, is the founder of Precision Biometrics and a former NASA researcher who invented the MyoVision Systems. He won one of the largest personal injury awards in U.S. history, and established the validity of surface EMG in a major State Superior Court Decision in Florida. He can be reached at 800-969-6961, info@myovision.com, or through www.myovision.com.

• For an example of normal and abnormal dynamic surface EMG, visit www.ChiroEco.com/sEMGexample.

References

There are two resources for information on the validity of surface EMG:


• Entire docket including court testimony and judges decision in the Florida case, Merrit vs. Case #04-1149RX (for the lower court decision), and Case #1D05-729 (for the Superior Court Decision).