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## Electromyography



### How does it help me?

You are able to see the graph of subluxation areas, if any, and monitor your progress over time by comparing the sEMG readings from the repeated sEMG scans during treatment sessions with your Chiropractic Doctor. By using the results from the sEMG scans, your Chiropractor is able to provide you with more effective treatment & also provide more useful documentation to other healthcare providers, quickly and efficiently.

## Electromyography

### Electromyography Based Chiropractic Care

#### What is Electromyography?

As the name suggests, "electromyography" measures electrical activity from a muscle or a group of muscles. Two systems have been developed for accomplishing this objective. One is to insert a needle into a muscle to measure the electrical activity from a single muscle fiber or a limited number of immediately adjacent fibers. This procedure is most often used to evaluate for such things as disease within muscle itself, peripheral nerve entrapment damage (e.g. carpal tunnel syndrome) and for nerve root involvement. A second procedure, and the one used here, is to measure the electrical signal as it reaches the surface of the body from the muscle or muscle under the area being evaluated. The primary purpose of this latter process to evaluate muscular imbalance and dysfunction. Such dysfunction is often the result of trauma and accompanied by pain.

The electrical current in muscles is designed to do basically two things: 1) cause bones to move (body motion), and 2) enable the muscles to resist unwanted motions such as that caused by gravity or involuntary movement of the body. That is, there is a constant electrical current which maintains the muscles in a state of limited activity at all times. This activity is often referred to as the resting muscle "tone". Without such "resting tone", the joints of the body would not, for example, be able to maintain their proper position and



relationship. The most important muscles designed to protect against involuntary movement of the joints are those muscles next to the spine from the base of the skull to the bottom of the low back. The examination in this case involved the assessment of this "resting tone" by measuring the electrical activity of the muscles on both sides of the spine (paraspinal) at various points top to bottom. Such as examination is often referred to as a static paraspinal (scanning) assessment.

The function aspects of muscles activity can also be measured while the muscles are in motion. Such an examination is referred to as a "dynamic assessment" and can be done with respect to muscles or groups of muscles at various locations within the body. However, as previously indicated, this report relates to a static paraspinal (scanning) assessment.

**Why use sEMG Scan?**

A Surface Electromyography (sEMG) scan is an innovation in medical technology that allows your Chiropractic Doctor to quickly determine the presence of elevated muscle activity or imbalance that may be associated with spinal subluxations.

**How does it help my Chiropractor?**

This technology is based on the latest advances in medical devices from NeuroDyne Medical.

It uses normative databases & statistical analysis along with minute muscular activity measurements to provide your Chiropractor with an image of the back. Your Chiropractic Doctor is able to see:

Elevations in Muscle activity along the spine.

Imbalances in Muscle activity across the spine.

Actual sEMG values.

Your Chiropractic Doctor can also print out a report in color for you as well as provide you with computer based autonomic charts.

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