An EMG or electromyogram is a machine that measures the activity of the muscles to gather information about the muscular and nervous systems. The electromyogram (EMG) records the electrical activity in muscles. It can diagnose diseases of the nerves and muscles. EMG test can help determine the cause of muscle weakness, spasms, and paralysis, pain in the arms, hands, legs or face. It can detect conditions such as pinched nerves, inflamed muscles and carpal tunnel syndrome. The electrode, a tiny needle, is inserted in a muscle to record its electrical activity. It records activity during the insertion, while the, Muscle is at rest, and while the muscle contracts. An amplifier increases the strength of the electrical signal from the muscle. An oscilloscope, which

Resembles a television or computer screen, displays the image. Speakers are used so the sounds produced by the electrical signals can be analyzed. After the first muscle is tested, the electrode may be inserted into another muscle. The total testing time may range from just a few minutes to more than an hour, depending upon how many muscles are tested. After the exam, you may feel tenderness in the tested muscles. There is a slight risk of minor, localized inflammation in muscles during the test. This usually lasts only a few hours.

EMG had been also used for the treatment of tension headaches, backache, neck pain, as well as in the stress related illnesses such as asthma and ulcers.

http://www.bgsm.edu/neurology/department/diagemeuro/emg.html
http://www.minneapolisclinik.com/services.htm#EM

http://www.yourhealth.com/ahl/1539.html