

The SRS Systems Approach to EMG™

SRS Medical biofeedback instruments utilize a unique *Systems Approach to EMG* that maintains accuracy throughout the entire measurement process, and optimizes clinical efficacy by ensuring that measurements are clearly correlated to audio and visual feedback.

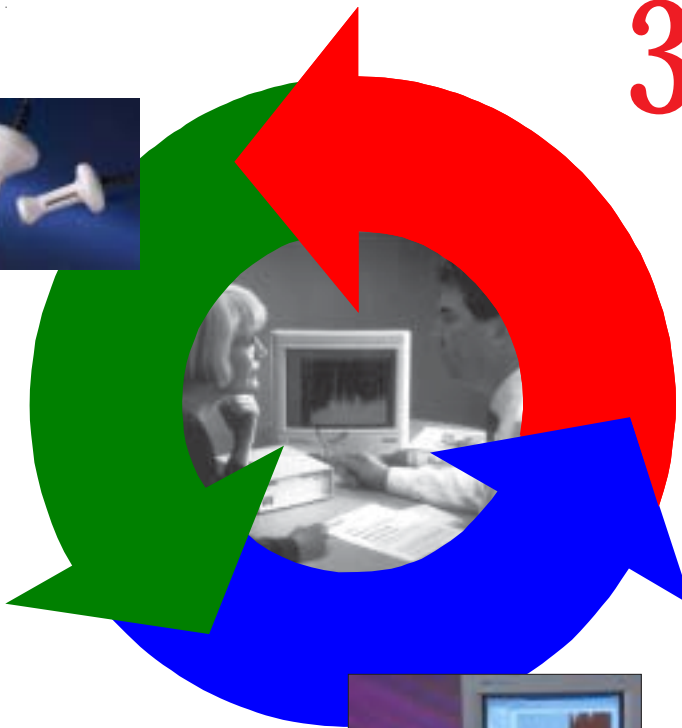
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Signal Detection



Internal electrode assemblies such as the SRS SenseRx™ Vaginal & Anal Sensors make the most direct measurements of pelvic muscle activity and should be used when possible.

The SRS SenseRx sensors are self-seating for repeatability. In addition, their individual electrodes are longitudinal (run lengthwise) rather than circular. This maintains the proper orientation relative to muscle fibers, as demonstrated by the high correlation between these sensors and fine wire (invasive) electrodes.



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Signal Processing

EMG signals are extremely small (millionths of a volt) and easily contaminated by noise or “artifacts.” SRS EMGs use a highly selective *notch* filter to reject power line interference, which is electrically similar to EMG, but 100,000 times larger. SRS EMGs also have very high common mode rejection (146 dB) to reject artifacts from other sources, such as fluorescent lights.



The measurement frequency range of SRS EMGs extends down to 30 Hz. in order to encompass the bulk of the signal energy, even when muscles are fatigued. Their high frequency cutoff extends to 500 Hz. in order to capture the high frequency myoelectric energy that results from the close electrode spacing that is inherent to internal vaginal and anal sensors.

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Display and Data Acquisition

The patient displays for SRS ControlWorks™ and MuscleWorks™ PC software programs track EMG activity in real time, even when signals increase quickly as in “flicks.” These programs provide for a number of different types of displays to suit different preferences, but screens are always uncluttered and unambiguous for maximum clarity.

ControlWorks and MuscleWorks both produce clear comprehensive reports automatically, and ControlWorks allows easy summarization of data in a variety of formats. Both programs are also designed to support your HIPPA privacy efforts.



Innovative Solutions for Incontinence

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