Vaginal Sensor (Pelvic Floor Muscle PFM Probe)

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Technology description

Description
Urinary incontinence affects almost 20 million people in the United States alone and almost 200 million worldwide.Women are twice as likely as men to experience incontinence with over 40% having stress incontinence (SI) and 45% having mixed incontinence (stress/urge).Most cases of stress incontinence in women are due to weakened pelvic floor muscles.An important part of first-line treatment for SI can be the training of these pelvic floor muscles.This can be accomplished by a number of methods including biofeedback training.
Current biofeedback sensors are large and uncomfortable.These devices, due to electrode placement, produce inaccurate EMG signal due to motion artifact and the involvement of non-pelvic floor muscles.Furthermore, it is necessary to use these devices in a supine position precluding them from effective urodynamic studies.Our sensor is a small device that gently adheres to the vaginal wall.This design allows for reduced motion artifact and is more pelvic-floor muscle selective producing a more accurate EMG signal.In addition, it allows women to sit/stand to void – making it potentially very useful for urodynamics and could replace needle electrodes or perianal surface electrodes.

Application area

-treatment for SI by biofeedback training
-enhanced urodynamics in neurological patients in place of needle EMG

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