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## **Pelvic Floor Biofeedback - Female**

### **Definition**

**Biofeedback** is the visual and/or auditory response of a machine programmed to measure changes in the human body's physiological activity. Biofeedback is primarily used to teach people new physical responses which were previously considered automatic and not within the person's conscious control.

One example, which we all consider to be out of our control, is blood circulation. It has been found that through the use of biofeedback, people can learn to elevate the temperature of their hands through increased blood circulation. This has proven effective in the treatment of migraine headaches.

Biofeedback techniques have been used in connection with Kegel exercises to treat women with urinary stress incontinence. Stress in this context does not refer to physiological stress, but rather to the rise in intra-abdominal pressure brought on by such activities as coughing, sneezing, jogging or lifting.

Biofeedback-based continence training has also proven effective with urge incontinence (the urgent need to pass urine and the inability to get to the toilet in time), and overflow incontinence (the spilling over of small amounts of urine when the bladder is full).

Biofeedback can also be used to learn to relax the pelvic floor muscles. Similar to "muscle-contraction" headaches, excess tension in the pelvic muscles can cause painful intercourse, frequent urination, difficulty with initiating urination, pelvic pain and even the inability to urinate. Learning to voluntarily relax the muscles through the use of biofeedback has been very beneficial.

Although most women have heard of Kegel exercises, many are confused about how to do them, primarily because they cannot locate and exercise the correct muscles. The three mistakes most often made when learning the Kegel exercise are the irrelevant contractions of the gluteal (buttocks) muscles, the tensing of the abdominal wall muscles, and the contraction of the abductor muscles of the legs.

The contracting of the abdominal wall muscles increases bladder pressure and thus the likelihood of incontinence. Biofeedback can eliminate these mistakes by helping the person locate the correct muscles to exercise.

## **Procedure Description**

A device called a perineometer is inserted into the vaginal chamber. This small monitor measures muscle contractions. The monitor is connected to a machine outside the body which can be viewed and heard.

Depending upon the contraction's strength, a visual display will change and a tone of varying pitch and volume is sounded. Visual and/or audio response allows the patient to know when the correct muscles have been located and the correct intensity of pressure needed to strengthen them.

Once the patient has learned to recognize and correctly exercise the exact muscles, the biofeedback monitor is no longer necessary. The patient can continue with the exercise therapy on her own. While there is nothing difficult about learning or doing these exercises, persistence is a requirement.

Like any other part of the body, muscle strength is not maintained without continued exercise. These exercises are to be continued for the rest of the person's life.