



Celeste De Bease, PhD/Widener University's Institute of Graduate Psychology

SURPRISING BENEFITS OF BIOFEEDBACK -- MONITORING BODY RESPONSES CAN HELP CONTROL MANY CHRONIC HEALTH PROBLEMS

The 1970s are forever associated with bizarre fads and funky ideas like the Pet Rock. Those disappeared quickly but at least one idea that seemed weird then not only had staying power, but in retrospect proved visionary. Mood rings, made with liquid crystal that changes color based on body temperature, were marketed as a tool to gauge state of mind -- but actually, these were an early form of biofeedback. Biofeedback was being studied in the 1970s, with research continuing even now, and it has become a highly sophisticated therapy for a host of different health challenges. In fact, even the American Cancer Society acknowledges biofeedback can help improve cancer patients' quality of life and certain associated health conditions.

I spoke with Celeste De Bease, PhD, the former chair of the Biofeedback Certification Institute of America, who has taught biofeedback therapy for many years and practices it in Bala Cynwyd, Pennsylvania.

ARE YOU "OVER-REACTIVE?"

Dr. De Bease explains that ideally the alarm or arousal levels people experience should be appropriate to the situations they encounter, but that's often not what happens. Many people chronically over-respond to stress and others go through daily life on "high alert" even when nothing particularly stressful is happening -- Dr. De Bease calls this having a "hyperactive idling speed." Though they may have no clue that this is happening, they pay a high price in stress-related fatigue

and illnesses. Through biofeedback, says Dr. De Bease, such people can learn to "uncouple the primitive and physically taxing survival response of fight or flight from situations that do not call for it."

Biofeedback is used for a wide swath of disorders, many associated with some degree of stress, including Raynaud's disease, urinary incontinence, ADHD, fibromyalgia, anxiety, epilepsy, high blood pressure, migraine and other headaches, sleep disorders, IBS and tinnitus. Treatment usually starts with a psycho-physiological stress test in which people are exposed to stress-inducing situations, such as recounting a stressful experience or hearing a sudden loud noise. They are hooked up to equipment that measures the physical responses to determine their individual levels of reactivity and how long it takes them to recover afterward. Machines used in biofeedback therapy measure muscle tension, blood flow, heart rate and skin temperature, as well as sweat gland activity -- all are extremely sensitive to thoughts and feelings. Additional equipment identifies brain activity (neurofeedback), which includes alpha waves (calm relaxation), beta (alert), theta (meditation and light sleep) and delta waves (deep sleep).

LEARNING A BETTER WAY THROUGH BIOFEEDBACK

Once problems are identified, the therapist uses various techniques to retrain clients to improve their physiological responses. One area of change centers on releasing muscle tension. This is the easiest biofeedback goal to achieve, says

Dr. De Bease, because we control many of our muscles voluntarily. Then the work moves on to learning control of the autonomic nervous system, which affects vasoconstriction. For example, people who have Raynaud's disease often have cold hands, caused by constriction in the blood vessels leading to them. Biofeedback teaches them to focus on learning how to uncouple this subconscious response and pay attention to what triggered it.

Another key diagnostic area centers on heart rate. *To explain:* Normally the heart beats faster on inhalation and slows with exhalation (variability), but that pattern can be disrupted in people who are chronically stressed and whose hearts remain at a fast-paced "ready" rate. People can learn to normalize this heartbeat with breathing exercises, which Dr. De Bease explains is "a great bridge for helping people to balance the influences from the two components of autonomic nervous system function -- sympathetic (preparing for attack) and parasympathetic (calm and relaxation)." Eventually people learn to consciously make changes that can affect their autonomic responses, including heart rate and perspiration. Rather

Daily Health News interviewed Celeste De Bease, PhD, former chair of the Biofeedback Certification Institute of America, a biofeedback therapy teacher and therapist in Bala Cynwyd, Pennsylvania, www.bioneurofeedback.com. She is associate clinical professor at Widener University's Institute for Graduate Clinical Psychology.

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than becoming inappropriately stressed yet again, you can learn to modify your response to fit the situation.

THE BODY-MIND LINK

Dr. De Bease observes that using the body to calm the mind is exactly the opposite of the usual path in the Western world, where many believe that if you “think it, you can make it so.” Biofeedback works in reverse, she says: “Change your body and it will change your mind.” It’s a tactic that reminds me of being told to smile when upset or angry -- however silly you feel with a grin on your angry face, it does seem impossible to stay mad.

Much of the stress in our culture comes from time constraints and attempts to multitask, thinking about several things at once, says Dr. De Bease. When you find yourself overstressing because of commitments or distractions or fear of not getting everything done, slow down and regulate your breathing. Breathing slowly in and out will help balance the function of the parasympathetic and sympathetic nervous system, allowing for a more appropriate autonomic response to external stressful stimuli.

Biofeedback can help all sorts of health problems -- and is generally considered safe. You can find a practitioner near you by going to the Web site of the Biofeedback Certification Institute of America (www.bcia.org). Most biofeedback sessions run about 45 minutes and cost in the same range as psychotherapy. Insurance generally pays at least part of the cost -- sometimes all, depending on your health condition. Don’t expect to solve your problems in one visit, however. Most people require a session a week for 20 weeks or so and some may continue even longer.