

HEALING JOURNAL



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BIOFEEDBACK: ACHIEVING MIND-BODY AWARENESS AND CONTROL

~ by Mark Roa, MA, LP, certified biofeedback therapist

Biofeedback is a mind-body therapy that helps patients control their response to stress, pain, injury and disease.

During a biofeedback session, information about the body is "fed back" to the patient, allowing him or her to change undesirable responses that contribute to unhealthy conditions. Sensors placed on the body measure particular aspects of physiology, such as blood pressure, brainwave activity, heart rate, breathing patterns, muscle tension, skin conductivity and sweat gland activity. This information is displayed on a computer screen, which typically uses graphic images to reflect changes in the physical responses being measured.

Biofeedback *therapy* is the process of learning to use the feedback, with the guidance of a biofeedback therapist, to become more aware and in control of physical responses. The therapist helps the patient develop a variety of skills to regulate responses. Over time, these skills become internalized so the patient no longer needs external feedback (the computer screen) to achieve the desired response.

What conditions does biofeedback treat?

People who benefit most from biofeedback are those whose problems are made worse by or create greater stress and tension. Conditions that often respond well to biofeedback include muscle tension and spasm, fibromyalgia, tension and migraine headaches, high blood pressure, cardiac arrhythmias, TMJ (jaw joint) disorders, insomnia, gastrointestinal disorders, essential tremor, Raynaud's disease (painfully cold hands or feet), epilepsy, partial paralysis, movement disorders, anxiety, phobias and chronic pain conditions. Biofeedback often is used in combination with other therapies.

What happens during biofeedback?

Biofeedback works by raising a person's awareness of his or her physical state of tension and stress. With visual and auditory feedback, and with guidance from the biofeedback therapist, people can learn to minimize tension and enhance relaxation. Nearly all biofeedback patients report an increased sense of control over their responses to problem symptoms.

Most biofeedback therapy is relaxation oriented. Depending on the training and orientation of the provider, patients may be instructed in various forms of relaxation, including progressive muscle relaxation, mindfulness meditation, breathing techniques, imagery or self-hypnosis. Some

patients move on from relaxation skills to participate in posture, movement and ergonomic awareness training.

Practicing learned skills at home is recommended, and patients may be given recorded relaxation guidance. The therapist works closely with patients to incorporate their increased self-awareness and self-regulation skills into daily life.



Biofeedback helps patients gain experience in practicing self-care. When someone is dealing with a challenging condition, perhaps with new limitations in physical function, the skills of mental and physical self-calming are central to the adjustment process. Biofeedback helps the patient learn to be gentle and calm in the midst of frustrating health conditions.



For more information, contact Mark Roa, MA, LP, certified biofeedback therapist, 612-863-5327, or mark.roa@allina.com.

UNDERSTANDING THE WHI FINDINGS ON LOW-FAT DIETS AND RISK OF BREAST CANCER

~ by Carolyn Denton, MA, licensed nutritionist

The Women's Health Initiative (WHI) was a major 15-year research program to address the most common causes of death, disability and poor quality of life in post-menopausal women – cardiovascular disease, cancer and osteoporosis.

One portion of the WHI, the Dietary Modification Trial, assessed the impact of a low-fat diet on disease development. It has long been thought that a low-fat diet could reduce the incidence of breast cancer and other diseases. Many people were understandably confused when the results of the study were announced earlier this year because the study concluded that among post-menopausal women, a low-fat diet did not significantly reduce invasive breast cancer.

Dietary Modification Trial

The Dietary Modification Trial examined the effect of diet modification on heart disease, breast cancer and colorectal cancer in nearly 49,000 post-menopausal women. The participants were divided into two groups and followed for an average of 8.1 years. One group was asked to reduce their dietary fat to 20 percent of total calorie consumption while the comparison group did not make any dietary changes.

Findings

During the study, there were 1,727 cases of invasive breast cancer in Dietary Modification Trial participants. Although breast cancer rates were 9 percent lower in the low-fat diet group, this difference was not statistically significant. As announced in the Feb. 8, 2006 issue of the *Journal of the American Medical Association*, the researchers concluded that the findings were not clear enough to recommend a low-fat intake for most women to prevent breast cancer. This seemed to contradict well-established recommendations about dietary fat.

Study Limitations

A closer review of the study and its limitations may help explain the confusing findings.

- ❖ **The low-fat diet group never achieved the recommended dietary fat intake (20 percent of total**

calories from fat). By the end of the first year, the low-fat diet group averaged 24 percent of calories from fat and by year six, the low-fat group was consuming 29 percent of calories from fat. The greatest reduction in breast cancer was found in women who had the greatest reduction of fat intake from the onset.

- ❖ **The study focused on reducing total fat but did not differentiate between healthy fats (from plant sources) and unhealthy fats (from animal sources and in many processed foods).** Now, 15 years later, data shows that fats in some foods like olive oil and avocados may actually be beneficial. In fact, nutritionally based physicians and nutritionists have been advocating for years that the quality, not the quantity, of fat is of greatest significance.

- ❖ **Diseases such as cancer can take decades to develop and may have multiple causes.** Examining the effect of a low-fat diet in post-menopausal women does not account for factors that may contribute to disease prior to the beginning of the study.

- ❖ **The same group of women who participated in the Dietary Modification Trial may have simultaneously participated in the WHI Post-Menopausal Hormone Therapy Trials.** In 2002, researchers stopped the hormone replacement study prior to its completion because early results showed a greater risk of breast cancer, stroke and heart disease in women who took estrogen. This simultaneous participation may have affected the development of subsequent invasive breast cancer.

While we cannot expect total fat reduction alone to reduce the risk of disease, making changes in our fat consumption may be helpful. This includes reducing fats from animal products, increasing fats from plant sources and including healthy fats in our diets at younger ages. ☘

For more information, contact Carolyn Denton, MA, licensed nutritionist, 612-863-6259, or carolyn.denton@allina.com.





FITNESS CORNER

News from our exercise physiologist

MAKING THE MOST OF THE HOME EXERCISE VIDEO

~ by Jeana Beberg, MA, RCEP

There are many options for exercising: walking, running, biking, dance classes, strength training, fitness classes and more. But what about those times when you cannot make it to the gym? Or it is too rainy for your usual run? Sometimes it is more convenient to exercise in the comfort of your home, and an exercise video can help you do it.

With an exercise video, it is easy to transform your living room into a home gym. You can purchase exercise videos, rent them at a movie rental store or borrow them from your local library. While some exercise videos may be boring or hard to follow, others are well produced by seasoned professionals and can be very motivating. Here are some tips for incorporating exercise videos into your fitness routine.

- ❖ Before you rush out and buy a stack of videos, make sure that video exercise appeals to you. If being in a class with others is what motivates you, doing exercise videos may not be the best choice.
- ❖ If you are new to exercise or have had a long break from regular exercise, look for videos that are for beginners. Using an intermediate or advanced level tape before you are ready may cause frustration and lead you to discontinue your program.
- ❖ Shop for a video that features an experienced instructor. The routine should include a warm-up and a cool-down. Avoid videos that use celebrities as the main selling feature, especially if they are teaching the routines without the support of a trained fitness professional.
- ❖ Be wary of any videos that make outlandish claims (“lose 20 pounds in two weeks” or “get firm with five minutes a day”). Just as in a gym or on the walking path, exercise takes consistency and time to achieve benefits. Quick fixes or gimmicks do not work.
- ❖ Videos that modify exercises to adjust to different abilities and fitness levels are great for new exercisers, seniors or those who may have physical limitations. Listen to your body. If something is painful, then modify the movement or back off on intensity. If it feels too easy, then increase the intensity.
- ❖ Check to see if any equipment is necessary to use during the video. It may require a set of dumbbells, an exercise ball, a stretch rope or a chair. Make sure you have everything ready when you begin.
- ❖ No matter what style of exercise video you choose (step, yoga, kick-boxing), work toward building your collection for a well-balanced fitness program. Look for videos that include components of strength, aerobic conditioning and stretching – these are essential for a well-rounded program.



For more information, contact Jeana Beberg, MA, RCEP, exercise physiologist, 612-863-5178, or jeana.beberg@allina.com.





**May/June
2006**

INSTITUTE FOR HEALTH AND HEALING: *MARK YOUR CALENDAR*

Registration is required for all classes unless otherwise noted. To register or for more information, call 612-863-3333.

Series Programs

Chair Yoga

- ❖ 6-week series, beginning May 25
- ❖ Thursdays, 4-5:15 p.m.
- ❖ \$79

Beginning Yoga

- ❖ 6-week series, beginning May 25
- ❖ Thursdays, 5:30-6:45 p.m.
- ❖ \$79

Restorative Yoga

- ❖ 6-week series, beginning May 1
- ❖ Mondays, 5:30-6:30 p.m.
- ❖ \$79

Continuing Yoga

- ❖ 6-week series, beginning May 3
- ❖ Wednesdays, 5:30-6:30 p.m.
- ❖ \$79

Lunch Yoga

- ❖ 6-week series, beginning May 25
- ❖ Thursdays, noon-1 p.m.
- ❖ \$79

T'ai Chi

- ❖ 8-week series, beginning May 17
- ❖ Wednesdays, 7:30-9 p.m.
- ❖ \$99

Weight-Loss Surgery Education

Stress and the Art of Self Care

- ❖ Thursday, May 18, 1-2 p.m.
- ❖ 1 CEU for nurses
- ❖ \$10

Changing Body Image

- ❖ Wednesday, June 21, 1-2 p.m.
- ❖ 1 CEU for nurses
- ❖ \$10

One-Time Classes

Nutrition for Acid Reflux

- ❖ Tuesdays, May 16 and June 6, 1:30-3 p.m.
- ❖ 1.5 CEUs for nurses
- ❖ \$20

Community Drum Circle

- ❖ Thursdays, May 18 and June 15, 7-8 p.m.
- ❖ \$5

Nutritional Support for Fibromyalgia

- ❖ Tuesday, May 9, 6:30-8 p.m. or
Tuesday, May 30, 1:30-3 p.m.
- ❖ 1.5 CEUs for nurses
- ❖ \$20

Nutrition and Cancer Prevention

- ❖ Tuesdays, May 23 and June 13, 1:30-3 p.m.
- ❖ 1.5 CEUs for nurses
- ❖ \$20

Heart Health and Nutrition: Cholesterol and Beyond

- ❖ Tuesdays, May 2 and June 20, 1:30-3 p.m.
- ❖ 1.5 CEUs for nurses
- ❖ \$20

Couple's Massage

- ❖ Tuesdays, May 30 or June 27, 6:30-9 p.m.
- ❖ \$40 per couple

