Biofeedback and Stress

Stress is known to cause many illnesses and diseases in the body. In her book *Five Weeks to Healing Stress*, Valerie O’Hara, Ph.D., states: “Research has shown that prolonged emotional stress and anxiety produce actual tissue changes and organ dysfunction.” Dr. O’Hara indicates that many studies show that stress is the leading cause of the following conditions:

| Susceptibility to colds and flu | Nausea          |
| Headaches                        | Heart attacks   |
| Anxiety attacks                  | Sleep disorders |
| Colitis                          | Irritable Bowel Syndrome |
| Mononucleosis                    | Herpes          |
| Inhibited immune resistance      | Psychosomatic illness |
| Weight Gain (Belly Fat)          | Sugar Cravings  |
| Hair Loss                        | Adrenal Fatigue |

It is estimated that over 65% of all doctors' visits have an underlying somatic response caused by some underlying emotional or psychological distress. Successfully managing stress can have a significant positive affect on one’s overall health and well-being. An important but often underrated tool in this management process is **biofeedback**.

By definition, biofeedback is a non-invasive modality providing real-time responses from the body to determine conditions of stress and to isolate specific stresses to the organism, in order to influence conditions in a favorable way that will increase vitality and facilitate adaptation within the organism. Biofeedback is closely related to “psychophysiology”.

Psychophysiology has become one of the most important sciences of our age. It measures brainwaves and skin resistance, and aids a person’s ability to change physiology with the mind. Psychophysiology provides information regarding the methodologies and processes that can be best used to aid the body in its capacity to adapt to its environment. The methods used to enhance adaptation include not only mind and muscle training, but also include the use of herbs, homeopathy, music, nutrition and nutritional supplements, relaxation, lifestyle changes, restructuring belief and thought patterns, identifying environmental stressors, and potentially removing them from the immediate environment.

Psychophysiology provides a holistic approach to recovering balance and harmony within the body. It focuses on understanding the current stress status of the individual and the proper selection of the best modes of therapy for the elimination of stressors. Stress reduction through training, lifestyle changes and nutritive therapies focus on the body’s stress priorities to increase the effectiveness of its efforts to maintain harmony. The practitioner has the assurance that when testing, these therapies combine synergistically to promote balance throughout the organism. These therapies provide the best holistic solution for the client’s benefit using biofeedback as a method to determine where stress is most focused in the body. Guesswork is thus eliminated.

Victor Maslow once stated: “If the only tool you have is a hammer, you will always be looking for a nail.” Biofeedback is a multi-dimensional tool that can bring the multi-dimensional results required for true healing to take place. Using biofeedback responses, the practitioner can determine if there are herbs, vitamins, lifestyle changes etc., which will help people adapt to their individual circumstances, reducing the need to “nail” everyone with a single common solution.

Practitioners using psychophysiology instrumentation stand at an open doorway to the biodynamic science known as **bio-energetic testing**—non-cognitive biofeedback stress testing. Although the principles of bio-energetic testing were formulated in Germany over fifty years ago, as a practical
science it is still fairly new. Bio-energetic testing is a complex bioelectrical life science involving all life sciences; it integrates advanced computer technology with holistic medicine, biology, anatomy, physiology, molecular biology, biochemistry, psychology, dentistry, nutrition and stress management. Testing the psychophysiological responses of the body and recording it with the computer can measure thousands of responses to the various digitized signals. Practitioners with a good working knowledge of these multidisciplinary relationships, and the means and skills for measuring the biodynamic responses within the body, will be able to provide their clients with a solid foundation for a holistic approach to optimal wellness. Through your own research and continued experience you will undoubtedly find yourself on a path of continued learning and awe regarding the miraculous machines that our spirits inhabit.

Overview of Bioenergetics

Bio-Energetic testing is prevalent in England, greater portions of Eastern and Western Europe, and Canada. Despite its successful history overseas, it remains an emerging industry in the United States. Originally designated as "Electro-acupuncture According to Voll," or EAV, the method is sometimes referred to as "Electro-Dermal Screening" (EDS). The test procedure itself is often called "point testing" or "meridian stress testing." In foreign countries where doctors diagnose patients with this type of procedure, it is considered a medical method. In the United States, however, it is classified as biofeedback, which means that it is officially neither a medical procedure nor a legal diagnostic tool. In this country, only a licensed medical doctor can diagnose or treat any disease, as these are considered medical practices. Consequently, acceptance of EAV by the medical community has been slow.

Scientific developments in recent years, especially in the field of quantum physics, support the idea that there is a way to tap into or "eavesdrop" on the body's communication system, and to analyze the complex systems of the body. Years of clinical experience confirm that there are data pathways within the body that correlate significantly with the ancient Chinese acupuncture meridians. The modern science and technology of bioenergetics confirm that there is a secondary information network within the body that runs throughout the mesenchymal tissue. This network is similar to, yet distinctly different from, the nervous system. Instead of chains of nerve cells and neurons moving information "on demand", the mesenchymal tissue, found just below the skin, is bathed in cellular fluid, which forms a continuous and constant communication system throughout the body. It is believed that not only do all cells of the body communicate, but that specific meridian flows within the mesenchymal tissue correlate with juncture points on the skin's surface known as acupuncture or acupuncture stress acupoints. These acupoints provide us with access to the mesenchymal information without the need to penetrate the skin. Hence, the process of electroacupuncture is considered non-invasive.

The concept of bioenergetics is to access and measure the flow of energy and information that is carried by this secondary circuit. In so doing, a biofeedback "loop" is created—a simple electrical circuit between the human and the machine, where the energy and information sent out by the device is processed with other energy and information being sent back by the body. It is by noting any changes in the pattern of the returning energy that we are able to "eavesdrop" on this conversation. If we then alter the input signal by bringing various substances into the loop, the differences in the output signals may provide us with clues as to what things might be needed to balance the flow of energy circulating through the body. In theory, a balanced flow of energy will
allow for the most efficient use of the body's available resources; thus, a balanced body has the greatest chance of restoring and maintaining health.

**Bionetics**

We are living and breathing human beings. We are not static. We are alive, vibrant, and dynamic. The body that houses our spirit is a complex compendium of multi-faceted and integrated systems including biochemistry, physiology, electrochemistry and psychology. They are all interrelated and function within a self-contained, metabolically controlled, self-regulating feedback system. The dynamics of our bodily organization and its study of the 'mind' behind life makes psychophysiology truly a "life" science.

The body seeks to maintain homeostasis within its dynamic environment. It has daily, weekly and monthly cycles and rhythms. At times external or internal stresses inhibit one or more of the regulating systems such as physiology, causing them to mal-function or mal-adapt. This can create a "stress cascade" as various secondary and tertiary internal support systems are called upon to aid the general organism. If there is continued or added stress upon the organism, it may not be able to adequately adapt to its environment resulting in maladaption and illness.

Victor Maslow once stated: "If the only tool you have is a hammer, you will always be looking for a nail." Today, you will be able to find value to an additional tool that can bring the multidimensional results required for true healing to take place. Using **biofeedback responses**, one can determine if there are herbs, vitamins, lifestyle changes etc., that will help people adapt to their individual circumstances, reducing the need to "nail" everyone with a single common solution. Bionetics recognizes that everyone has unique challenges to face, and their own path toward health and wellness to follow.

Deepak Chopra believes that healing is like the awakening to our potential of infinite possibilities, having the awareness that we are infinite beings. A holistic approach to wellness must include Body, Mind and Spirit. It must make the individual aware and enhance their capacity for optimal health. Bioenergetics provides a foundation of principles that teach responsibility for one's own health. We need to know what to put into our bodies and be willing to accept responsibility for the outcome. Everything we encounter in life—from the environment we live in to the foods we ingest to the thought patterns we hold dear—will have some impact on our total overall wellness.

Our goal is to provide practitioners with a good working knowledge of measuring the biodynamic responses within the body, which will provide the foundation of a holistic approach to optimal wellness. Through your own research and continued experience you will undoubtedly find yourself on a path of continued learning and awe regarding the miracle that our spirit inhabits.

Practitioners using the psychophysiology instrumentation stand at an open doorway to the biodynamic science known as bionetics—computerized non-cognitive biofeedback stress testing. Although the principles of bionetics were developed in Germany over fifty years ago, as a practical science it is still fairly new. Bionetics is a complex bio-electrical life science involving all life sciences; it integrates advanced computer technology with holistic medicine, biology, anatomy, physiology, molecular biology, biochemistry, psychology, dentistry, nutrition and stress management. By testing the psychophysiological responses of the body and recording it with the computer, thousands of
responses to the various digitized signals can be measured.

The responses to the digitized signals representing common substances (foods, chemicals, toxins, herbs, homeopathics, etc.) help the practitioner to see exactly how well the body is adapting to its environment. The equipment is sensitive enough to isolate the body's response to each ‘stressor’ and prioritize the focus of stress—the causal factor, or causal chain—that might be disrupting homeostasis. The testing is a way of isolating the “squeaky wheel” in a complex set of gears, that is slowing or even shutting the whole system down.

Because the body is a complex organism, the stress responses can also help identify the potential solution to restoring homeostasis, and the most effective means of supporting it on a continuing basis. Bionetics is not a science of reaction as much as it is a science of interrelations. It is a science designed to bring back meaning, balance and harmony into our lives.

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