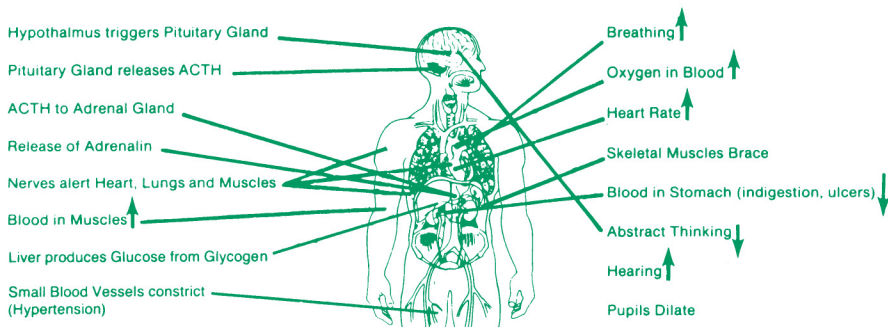


The Mind/Body Bridge

Listen to your body. It has a lot to tell you if you choose to pay attention. First, consider what goes on in your body when you experience stress. When the body's stress response is triggered:



- Heart rate speeds up
- Blood pressure rises
- Breathing speeds up
- Blood moves to major muscles
- Muscles tense
- Sweating occurs
- Blood sugar increases for energy

The stress response is the way your body and mind react to change or any increased demand. It is a good response which helps your productivity. Staying too long in this state, however, can result in damage to your body through accident or illness. What if you could help the body return from the stress response? You can, through the use of biofeedback!

Biofeedback is the process of getting information (feedback) about your biological (body) functions. Simple examples of everyday biofeedback devices include a mirror, a thermometer, and a scale. A thermometer provides feedback on your body temperature. A scale gives you feedback on weight loss or gain. A mirror could show you if you are pale or flushed.

Training with biofeedback instruments teaches voluntary control over some bodily responses which are associated with stress.

Examples of Clinical Biofeedback Devices Include the Following:

EEG – Electroencephalograph detects brain wave activity and records it on graph paper. Alpha brain waves are present when a human being is relaxed. Through training, an individual learns how to make more Alpha brain wave patterns.

EKG – Electrocardiograph measures the rate and pattern of heartbeats. During the stress response, heart rate is increased. The EKG lets us see on paper when the heartbeat decreases during efforts to relax.



EMG – Electromyogram is used to detect and measure muscular tension. A light or an auditory signal can be used to show when there is a reduction in muscle tension. We know the skeletal muscles brace during the stress response. The lower the amount of muscle tension, the more relaxed a person usually feels.

GSR – Galvanic Skin Response is a measurement of the moisture produced by the body at times of excitement or agitation. The greater the moisture, the more excited or agitated a person generally feels. It is usually measured on the hands and feet.

These are reliable methods which can be used to measure the physical response of the body to stress. They also have many other uses in medicine. The results need to be read and interpreted by trained technicians.

Portable biofeedback tools also exist. They are designed for everyday use. Such biofeedback tools can help us to teach ourselves to relax and recover more quickly from everyday stress.

Personal Biofeedback Training Tools

Pulse Rate. Taking your pulse can be a biofeedback method. It is not as accurate, but it works like a portable EKG device. On your wrist, gently trace with two or three fingers from the base of your palm toward your thumb where a bone generally protrudes. Your fingers will gently slide into a slight groove where you should feel a pulse beat. Count the number of heart-beats in 10 seconds. Multiply that figure times six and you will have your pulse rate per minute. Take your pulse before and after administering a relaxation technique. You should see a lower pulse rate after successfully completing relaxation exercises.

PMT – Perceived Muscle Tension. This is a self-measurement of muscle tension using a subjective scale. The technique involves asking yourself, “Where do I feel tension?” “Where do I feel relaxation?” This relaxation and tension inventory provides you with a recognition of the difference between tension and relaxation in your own body. It links a bodily feeling to the words tension and relaxation. The answer you give to these questions is your feedback.



You may even use a number to describe your feeling of tension in a body part. An example of a scale may be:

- +3 = extremely relaxed
- +2 = very relaxed
- +1 = more relaxed than normal
- 1 = more tense than normal
- 2 = very tense
- 3 = extremely tense

The Touch Test. Let your left arm hang loose at your side. Feel your biceps with your other hand. Now flex your left arm and feel the biceps again. Flexing shows tension much like the way our skeletal muscles brace when the body experiences tension. Muscle hardness can be associated with body part tension, whereas muscle softness can be associated with body part relaxation. This is a general statement that will vary according to your musculature; however, if a body part is tense, it will feel harder than if relaxed. Many people experience neck and shoulder tension. Reach back and get a sense of muscle hardness or tension by gently touching or pressing. It may seem difficult to sense at first, but it can be an excellent method for checking relaxation or tension.

Stress Control Card or Stress Dot. A card you hold or a dot that sticks to the skin measure the temperature of the hand. The colors black, brown, and red report cold temperatures and indicate moderate to high levels of stress. When you are more relaxed, the circulation to your hands and feet returns to normal and your hands should be warmer. Your stress card or dot should report green, blue, or violet type colors. Use of this card before and after a relaxation technique can give you feedback as to how well the technique is working for you. The exact colors are not as important as being able to modify a color. This shows you have made a connection between your mind and body.

