

Biofeedback and Research results

The **New England Journal of Medicine** in 2008 stated, "managing the physiological responses to stress is critical to survival."

The results of long-term stress or chronic stress can manifest itself in many ways:

- chronic fatigue;
- headaches and migraines;
- insomnia;
- anxiety and depression;
- pain;
- addictions;
- weight issues;
- allergies; and
- digestive disorders

In fact almost any health condition can be related in some way to chronic stress exposure.

In teaching the mind and body how to relax and reduce exposure to chronic stress, many great traditions have emerged from the past such as yoga, tai chia a wide range of martial arts as well as all of the variations of contemplative practice under the heading of **meditation**.

An abundant amount of scientifically validated studies show a regular practice of meditation enables one to relax the mind and body, providing significant life enhancing benefits, if we simply make the time.

Another approach gaining considerable currency is the application of biofeedback training. [See current feedback](#).

Biofeedback

Biofeedback utilises computer software to retrain our minds and bodies into a stress reduction response.

Biofeedback utilises computerised electrode dermal responses to stress and pain; it is a management system used to re-educate muscles including the heart muscle, for wellness enhancement.

This means most biofeedback devices use wrist and ankle straps or finger attachment with perhaps a headband, and are connected to a device through which the computer sends multiple frequencies (signals) and awaits the body response.

Once the body responds, the amount of resistance to a specific frequency is measured and by determining which frequency is out of balance (stressed), it feeds back specific frequencies until the body responds to relieve the stress (homoeostasis).

The body then moves from a state of stress to a state of relaxation and, over time, becomes able to recognise its own responses and to change how it responds.

Researchers emphasise the evidence for autonomic nervous system dysfunction in depression and the power of [HRV \(heart rate variability\) biofeedback](#) to enhance autonomic nervous system function.

Another area researchers are excited about is the area of heart disease and neurological trauma.

Biofeedback is showing promising results in the challenging problem of post traumatic stress disorder (PTSD).

Biofeedback along with lifestyle changes, dietary and supplemental support can be used to mediate just about any physical and emotional stress, from allergies to chronic illness.

Together with a significant lifestyle change such as a daily practice of meditation, one can look forward to a less tension driven, healthier and longer life.

Power spectral analysis of heart rate variability after biofeedback training.

[Power spectral analysis of heart rate variability after biofeedback training.](#)

Heart rate variability biofeedback to enhance heart rate control

[Heart rate variability biofeedback as a behavioral neurocardiac intervention to enhance vagal](#)

Biofeedback treatment for coronary artery disease

[Biofeedback treatment increases heart rate variability in patients with known coronary artery](#)

A study on Biofeedback treatment for Post Traumatic Stress Disorder (PTSD)

<http://www.springerlink.com/content/e23w57825kw1258/>