

John C Coates ND CHt  
Melbourne Victoria Australia  
Biofeedback Practitioner  
Hypnotherapist  
Naturopath  
Herbalist  
Kinesiologist

Telephone: 0402 309 534  
Email: [coates.john1@gmail.com](mailto:coates.john1@gmail.com)

Drug Free Stress Management  
using  
Biofeedback  
by  
John C Coates ND CHt



# Contents

STRESS

HEART RATE VARIABILITY TRAINING

RESONANT FREQUENCY BREATHING

BIOFEEDBACK

HOW CAN BIOFEEDBACK HELP ME?

## De-Stress Naturally and Drug Free

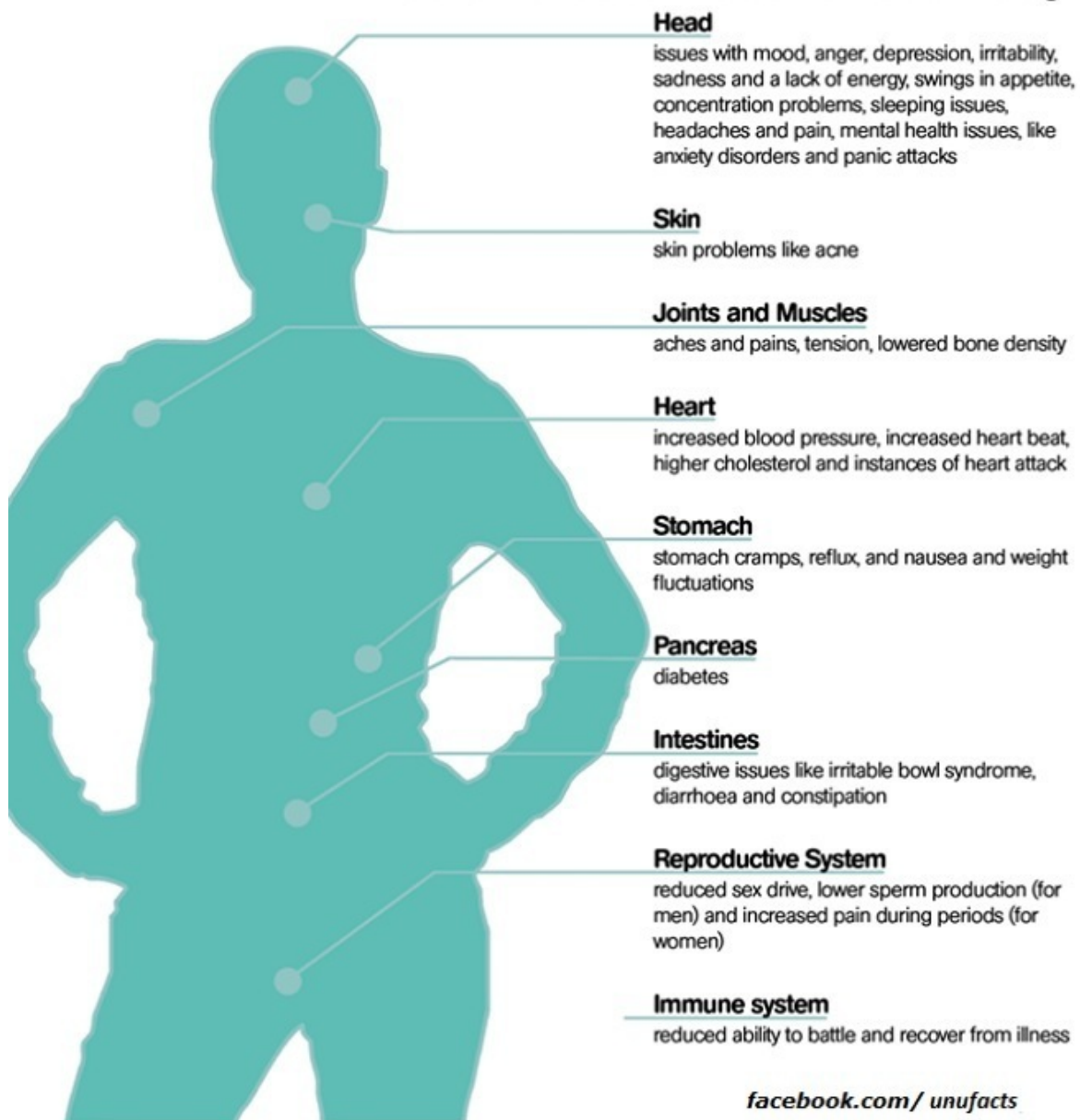
Today, stress is responsible for about 60% of all visits to a GP. Stress impacts on us from many sources: Our jobs, driving, relationships, illness, physical trauma, emotional issues, financial problems, loss or bereavement of a loved one or pet and moving house to name just a few.

Brian Tracey, in one of his books , mentions a little formula  $E + R = O$ . Where E is an EVENT in our life, usually beyond our control. R is our REACTION or RESPONSE to that event and O is the OUTCOME.

The only thing we can really influence is our RESPONSE.

Controlling our RESPONSE will change the OUTCOME. The DRUG FREE approach discussed in this Ebook, can positively influence your response to events in your life and can be achieved with HEART RATE VARIABILITY TRAINING which uses your own personal breathing rate called RESONANT FREQUENCY.

## What Stress Does to Your Body



## Heart Rate Variability & Stress

When we inhale our heart rate increase and when we exhale our heart rate decreases. This difference is called Heart Rate Variability (HRV). The change in heart rate is controlled by the Vagus Nerve and is known as Respiratory Sinus Arrhythmia.

Large differences equate to good health and well being, conversely small differences indicate poor health. As we get older and or get ill this differences decreases. Our ability to cope with life and events in our lives also decreases. By increasing your HRV it is possible to manage many of the problems caused by stress.

By learning how to breathe at a predetermined rate it is possible to increase your HRV and thus manage many issues in your life that may be of concern.

## Resonant Frequency Breathing

Resonant frequency breathing is breathing at your individual rate that gives you maximum HRV. The individual rate falls between 4.5 to 7 breaths per minute. Ideally you should practise this breathing rate twice a day for 20 minutes at a time. Alternatively four 10 minute sessions and and/or as often as you are able. As with any technique practise is essential. Once learnt it can serve you well for the rest of your life.

Breathing is an essential biological function needed to sustain life so why not learn to breathe in a way that has many healthy benefits?

It exercises stretch receptors in the major arteries that control you blood pressure. Exercising these receptors helps to control emotions and improves memory.

# Biofeedback

The idea behind biofeedback is that, by harnessing the power of your mind and becoming aware of what's going on inside your body, you can gain more control over your health.

The technique of using monitoring devices to obtain information about an involuntary function of the central or autonomic nervous system, such as body temperature or blood pressure, in order to gain some voluntary control over the function. Using biofeedback, individuals can be trained to respond to abnormal measurements in involuntary function with specific therapeutic actions, such as muscle relaxation, meditation, or changing breathing patterns. Biofeedback has been used to treat medical conditions such as hypertension and chronic anxiety.

The American Heritage® Science Dictionary Copyright © 2005 by Houghton Mifflin Company. Published by [Houghton Mifflin Company](#). All rights reserved.

During a biofeedback session, electrodes are attached to your arms, fingers and a belt around the abdomen. These electrodes send signals to a computer, and displays graphs that show your heart and breathing rate, skin temperature, skin conductance, breathing rate and muscle activity.

When stressed your heart rate can speed up, your muscles contract, your blood pressure rises, you start to sweat, and your breathing rate increases and your peripheral temperature falls. These changes immediately visible on the computer screen. You are trained to overcome these changes by **RESONANT FREQUENCY BREATHING**.

Breathing at your Resonant Frequency not only increases your HRV but also balances two branches of the Autonomic Nervous System (ANS), the Sympathetic branch (flight or fight) and the Parasympathetic branch (relaxation).

Biofeedback can be used to help manage a number of conditions and health problems, such as:

- Anxiety or stress
- Breathing disorders
- High blood pressure
- Headaches and migraines
- Preparing for surgery and medical procedures
- Breathing disorders
- Gastrointestinal disorders (digestive disorders)
- Headaches and migraines
- Enhancing your meditation practice
- Some infertility issues
- Hyperhidrosis
- Pain
- Fibromyalgia
- IBS

For more detailed information please go to: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2939454/>



## The ProComp Infiniti 8



The ProComp Infiniti is a new 8 channel, multi-modality encoder that has all the power and flexibility you need for real-time, computerised biofeedback and data acquisition in any clinical setting.

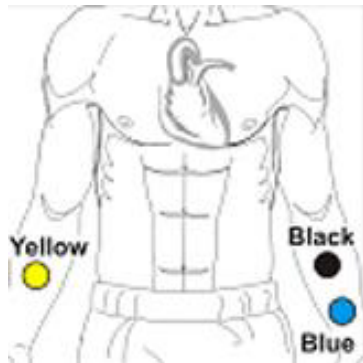
The first two sensor channels provide ultimate signal fidelity (2048 samples per second) for viewing RAW EEG, EMG and EKG signals. The remaining six channels (256 samples/sec) can be used with any combination of sensors, including EEG, EKG, RMS EMG, skin conductance, heart rate, blood volume pulse, respiration, goniometry, force, and voltage input.

ProComp Infiniti™ offers internal, user-activated calibration to ensure that you can always obtain the highest quality signal, without the costly downtime associated with factory re-calibration.

In short, the ProComp Infiniti covers the full range of objective physiological signals used in clinical observation and biofeedback.

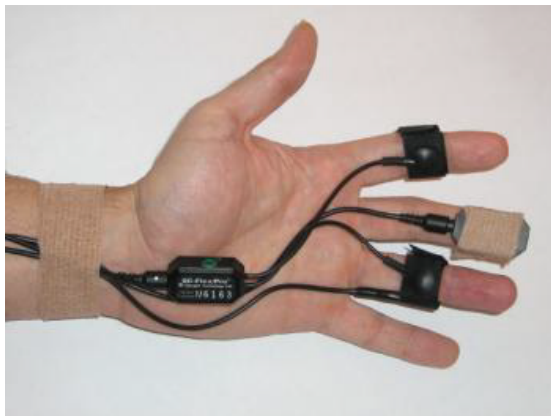
Refer Thought Technology. [www.thoughttechnology.com/](http://www.thoughttechnology.com/)

## HEART



Electrode placement for heart rate monitoring

## SKIN CONDUCTANCE & TEMPERATURE



The sensor on the middle finger measures temperature.  
The two black sensors each side pick up changes in perspiration due to stress.

## BREATHING



A velcro strap with a small diameter flexible rubber tube measures expansion and contraction of the abdomen when breathing abdominally.