



Presents

An introduction to Heart Rate Variability.  
A measure of health and change.

By

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For more information visit [www.infinite-mind.co.uk](http://www.infinite-mind.co.uk)

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## Note to readers

Whilst all due care and attention has been given to the content of this article, I wish to point out that nothing in this report should be taken as medical advice.

If you have any questions or concerns regarding your own health please seek the appropriate medical advice or consult your doctor.

Heart Rate Variability is a massive subject with extensive research being conducted all the time around the world. The information here is intended as an introduction to the subject.

More information is available on [Infinite Mind's Accredited TFT Training](#).

## Overview

In searching for the most effective ways to help people achieve greater success, health and happiness in their lives, I began to study the people and techniques that achieved the most favourable and speedy results.

During this time I was lucky to train and work with some of the leaders and developers of the main techniques I use; the ones that work!

Some of the techniques I use in resolving peoples problems may seem very different from what some people are used to. To me that's a good thing. In many cases what they tried in the past didn't work. My main aim is to resolve the problem as quickly and effectively as possible and in doing so test that all is better.

In my early days as a therapist, testing relied on my clients expressing how much better they felt after a treatment and being able to do things that before treatment they couldn't do. It was not until I learnt about Heart Rate Variability and began to use the analysis equipment that I could prove the positive changes my clients were achieving.

Now I offer all my clients Heart Rate Variability Analysis to diagnose potential problems and most importantly to witness the dramatic improvements treatment can make.

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## What is Heart Rate Variability (HRV)?

Heart Rate Variability (HRV) is a measurement of the time intervals between consecutive heartbeats measured in milliseconds. It has been recognised that for good health these intervals should vary in what appears to be a random and chaotic manner.

There are different methods of evaluating HRV. The two most common as recommended by the Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology are Time Domain Methods and Frequency Domain Methods.

Of the different methods of recording HRV, the most stable and the measure of variability itself is SDNN; Standard Deviation of Normal to Normal Heart Beats. Throughout this article all references to HRV measurements are the SDNN.

**Note: HRV is not your pulse rate or blood pressure.**

For example, two people may have exactly the same pulse rate however one may have a healthy variation in the intervals between beats while the other may have regular intervals between beats. Research indicates that the more regular these intervals are, the closer you are to death.

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In The Sprit of Science, Professor Brian Goodwin writes;

**“Nothing is more orderly than the rhythmic beating of your heart as you sit reading this, you might think. It is a paradigm of physiological regularity on which your life depends in a most immediate way. However, combined with this order there is a subtle but apparently fundamental irregularity: in health individuals... the interval between heartbeats varies in a disorderly and unpredictable way. If the inter-beat interval is regular – either constant or itself rhythmic – then this is a sign of danger.”**

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## Background Information About Heart Rate Variability?

HRV originally comes from the field of obstetrics where it became common place in maternity wards. In the past, where there was reason to be concerned about the health of an unborn child, doctors would monitor the heart of the foetus by attaching electrodes to the head. Although it was believed that heart rhythm should be even, it was discovered that unborn infants with near perfect rhythm in the intervals between heartbeats were born dead. Unborn infants with a lot of variability in their heart rhythms were born healthy.

Later, HRV tests were done in hospitals to see if the same results applied to adults. It was found that as death approaches adults, the intervals between the heartbeats continue to get more even until they die.

Since these early days in the 1960's, HRV, according to many scientists, has become known as, **"the most powerful predictor of all cause mortality; it predicts more powerfully than any other measure or combination of measures."**

Research shows that the risk of death is not just due to heart problems but can be due to cancer, infections, diabetes or almost any other condition including psychological conditions such as stress, fears and anxieties.

## What Effects Heart Rate Variability?

There are many internal and external factors that can affect HRV. For years some scientists have believed that there is a link between your psychological thoughts and your physical body and health. This is now being proven with HRV analysis.

Stress, both physical and psychological, can negatively affect your HRV measurements. If you are feeling 'under the weather, less than perfect or a bit rough,' no matter what the reason, the chances are that your HRV will be negatively affected. Research has shown that individuals HRV can also be negatively affected by certain foods, alcohol, smoking, drugs (both prescribed and elicit) and all manner of products, some of which are supposed to promote health.

**(Read Infinite Mind's article on [Toxins](#).  
Toxins can have a dramatic effect on your health and HRV)  
[www.infinite-mind/shop](http://www.infinite-mind/shop)**

At times we all experience stress of one kind or another. In most cases people just get on with their lives hoping that things will improve or work themselves out. If this stress (whatever it may be) is short lived, then the body's natural ability to heal itself will resolve most problems and there will be no dramatic changes in HRV.

If the stress is long term, then there is an increased risk of physical and emotional fatigue which will be observed with HRV analysis.

As an example, stress and fear, be it real or perceived, is experienced by an increase in heart rate. Left unchecked a person can adapt to this dysfunctional pattern and fatigue (mentally and physically) and emotional distress can occur. Consequently, hormonal and neurological overwork occurs and causes a decrease in life satisfaction and individual performance. Long term exposure to these processes can cause illness and disease such as cardiovascular disease, adult onset diabetes, anxiety, depression, panic disorders and so forth.

## What can be done to change Heart Rate Variability?

“When I trained at Harvard Medical School I participated in some HRV research and found HRV to be extremely interesting. However, since nothing could be done to improve it, I lost interest in it.”

Anonymous doctor

Up until recently there was little that could be done to improve HRV. As you have discovered, doctors would tend to monitor HRV only as a predictor of death.

There has been some hope in increasing HRV measurements. Most people now agree of the benefits in becoming a non-smoker. One of these benefits appears to be an increased HRV measurement. Research has shown that ex-smokers who stop smoking for twelve months increased their HRV by up to 20%.

A similar study has shown that by participating in a regular exercise programme (for six months) can increase HRV measurements to the same degree.

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As an indication to the benefits of improved HRV, a research study published in the American Journal of Cardiology (Bilchick et al) states that **“... each increase of 10 milliseconds in HRV, gives a 20% decrease in risk of mortality ...”**

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It is known in cardiology research that depression can be especially dangerous for patients who suffer with heart disorders. In a very dramatic study measuring the effectiveness of different therapies in treating depression, HRV was used to evaluate change.

Of the therapies tested, Cognitive Behavioural Therapy (CBT) came out the worst. As a result of up to 16 sessions, the patients reported some improvements in how they felt however their HRV did not improve at all, declining by a small amount. The drug Sertraline was also tested in this study and also came out poorly. After taking this drug for 22 weeks, patients HRV increased but only by a small amount, approximately 5%.

These are incredible findings because the two most common ways to treat depression in the UK are CBT and drug therapy. These methods, if they work, take time and in the case of Sertraline have common side effects including nausea, diarrhoea, tremor, insomnia and dry mouth.

There was however one therapy that stood out above the others in this study. Not only did it eliminate depression, it also increased HRV on average by 80%. This was achieved with no negative side-effects and completed in a single session, often within minutes. The therapy was called Thought Field Therapy.

## **Dramatic improvements in Heart Rate Variability (HRV)**

Ten years ago two independent doctors began to use Thought Field Therapy (TFT) to help their patients'. As they did they got a surprise, this new therapy had caused dramatic improvements in their patients' health as well as unprecedented increases in HRV measurements.

One of the doctors, a practitioner in Norway and a manufacturer of HRV equipment, thought that his HRV equipment must have been faulty such was the powerful effect of TFT. He measured the HRV changes on separate equipment and was reassured when all was working perfectly. TFT had increased HRV.

The founder of Thought Field Therapy, Dr. Roger Callahan, was unaware of the dramatic affects his therapy was having on HRV until one of the doctors mentioned above, Dr. Royal, an expert in HRV, called him to share his findings.

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**“...I can tell you that the effect on the autonomic nervous system is nothing short of phenomenal.”**

**“Heart Rate Variability is the only test known that will not respond to a placebo effect. You can't fool the autonomic nervous system.”**

Dr. Fuller Royal.

Taken from **Tapping the Healer Within** by Dr. Roger Callahan.

Available from: [www.infinite-mind.co.uk/shop](http://www.infinite-mind.co.uk/shop)

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Since these initial telephone calls Dr. Callahan has completed much research into the effects of TFT on HRV, some of which are in his book, Tapping the Healer Within.

**(Keep reading to discover more about TFT.)**

As this article is meant as an introduction to HRV, how important it can be in evaluating your health and what can produce a change, I strongly recommend reading Dr. Callahan's book for more information.

If you wish to learn more please visit [Infinite Mind](http://Infinite Mind) and view our TFT training courses.

## What is Thought Field Therapy (TFT)?

As you have already learned, TFT was developed by Dr. Roger Callahan, a leading figure in Psychotherapy for over 50 years. Although Dr. Callahan was very successful in his private practice, he was becoming increasingly disappointed with the results he was achieving with conventional therapies.

In searching for better, faster more effective ways to help his clients Dr. Callahan studied various other therapies and techniques before discovering TFT. With a success rate over 98%, TFT became the only therapy Dr. Callahan would use in helping his patients however he believes the other techniques were instrumental in his discovery.

Mary, a patient of Dr. Callahan's, had been receiving conventional therapies for a severe water phobia. After 18 months there had been little improvement in her condition and Dr. Callahan was at a loss as to what to do next. As Mary spoke of her fear and the churning feeling she experienced in her stomach, Dr. Callahan asked her to tap with her fingers under her eyes, the acupuncture meridian for the stomach. As she did something changed. The fear vanished.

This was only the beginning. As Dr. Callahan tried the same thing with other phobic patients only a few of them gained relief. Luckily over the coming years Dr. Callahan discovered that there were other points that could be tapped and importantly, specific tapping sequences, that could eliminate all negative emotions and help with physiological conditions.

TFT is still growing around the world with thousands of people learning how it can help with various problems and conditions. Several high profile people such as Paul McKenna now use TFT as well as doctors from many disciplines. As of 2007 TFT has been recognised by the British National Health Service.

TFT is a drug-free method of literally tapping into the body's energy with information to allow healing without using acupuncture needles, drugs or any other invasive means.

With TFT you do not need to believe it will work to benefit. It does nothing to change your core beliefs and it is possible to treat young children. As well as psychological problems many TFT Practitioners all over the world (including myself) are also treating physical problems and speeding up the healing process.

**Training courses in TFT are available through Infinite Mind as is Dr. Callahan's book, Tapping the Healer Within.**

[www.infinite-mind.co.uk/shop](http://www.infinite-mind.co.uk/shop)

## What Happens in a HRV Test?

There are several ways to measure HRV. They all involve recording the heart beat for a period of time and a sophisticated computer program which analyses all the information received to give information about the autonomic nervous system.

Although some versions of HRV take measurements over a 24 hour period, most tend to rely on either 5 or 10 minute recordings.

All that is involved for the person being tested is that they sit down in a normal, straight backed chair and have an ear clip attached to them. During a 5 minute trial they may be asked to relax or to think about a specific problem they want help with.

On completion of the trial information is available immediately. If a client receives treatment for a particular problem the trial can be run again to witness any changes. There is no limit to how many recordings can be done.

## Final Words

There are different methods of recording HRV, the most stable and the measure of variability itself is SDNN; Standard Deviation of Normal to Normal Heart Beats.

This is important to know as there are products and therapists that claim to measure HRV and yet omit SDNN. For example I have met with several psychologists that measure changes in their clients HRV through using breathing techniques. Although breathing techniques may help a person feel a little better whilst doing the exercise it does little to improve the SDNN.

If you are to use or buy HRV equipment, check that it conforms to the suggestions made by the Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology.

Not many people have heard about Heart Rate Variability probably because in the past there was little that could be done to improve poor scores. Now improvements can be made quickly, HRV is no longer something to worry about with predictions of mortality but a measure of health and change.

If after reading this you wish to check your HRV, please contact [Infinite Mind](#).  
With a donation to charity we will gladly check your HRV for you.

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