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## Institute of HeartMath® feeds food for thought with science of Thanksgiving gratitude

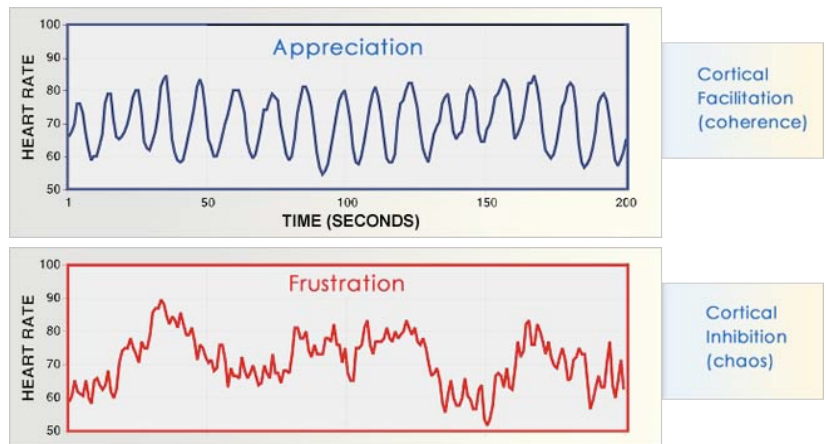
**BOULDER CREEK, Calif., DATE ##, 2010** – Measuring someone’s gratitude is quite literally possible with today’s cutting-edge science and technology. So how exactly do you measure gratitude – scientifically?

Offering some food for thought this Thanksgiving – apart from turkey and mashed potatoes – the [Institute of HeartMath®](http://www.heartmath.org) (IHM), a recognized leader in researching the physiology of emotions, is serving up a belt-buster when it comes to the latest understanding of gratitude.

The institute has been studying human emotions for nearly 20 years, among them gratitude and appreciation, emotions that are at the heart of an American holiday whose roots date back to 1621.

According to research at IHM, true feelings of gratitude, appreciation and other positive emotions can synchronize brain and heart rhythms, creating a bodywide shift to a scientifically measurable state called *coherence*. In this optimal state, the body’s systems function more efficiently, generating a greater balance of emotions and increased mental clarity and brain function.

The level of coherence you experience during feelings of appreciation can be measured by sensitive instruments. Coherence also can be measured using heart-rate variability (HRV) – the naturally occurring beat-to-beat changes in heart rate, which can be seen in an electrocardiogram (ECG).



This method of measuring appreciation is much more precise than attempting to guess by observing how much someone is smiling. Measuring coherence can accurately show heart, brain and nervous system interactions that are sensitive to changes in emotions.

While an individual – smiling or not – is experiencing coherence, the heart rhythm appears as a smooth wave-like pattern on an HRV graph. Contrast coherence with *incoherence*, created by negative emotions such as frustration and anger, and this can often disrupt the synchronization of the body’s systems and create jagged or chaotic patterns on a graph.

Advanced research at the Institute of HeartMath and other elsewhere has provided evidence that gratitude is not simply a nice sentiment or feeling. Sustained feelings of gratitude have real benefits, including the following:

- **Biochemical changes** – Favorable changes in the body’s biochemistry include improved hormonal balance and an increase in production of DHEA, the “anti-aging hormone.”

- **Increased positivity** – Daily *gratitude exercises* can bring about a greater level of positive feelings, according to researchers from the University of Miami and the University of California, Davis who studied this process in 157 individuals over 13 days.
- **Boost to the immune system** – The IgA antibody, which serves as the first line of defense against pathogens, increases in the body.
- **Emotional “compound interest”** – The accumulated effect of sustained appreciation and gratitude is that these feelings, and coherence, are easier to recreate with continued practice. This is because experiencing an emotion reinforces the neural pathways of that particular emotion as it excites the brain, heart and nervous system. The downside is that you also can reinforce negative emotions.

Thankfully, gratitude and appreciation can create their own positive psychophysiological holiday in your body – without the necessity of a feast.

For some this holiday, the appreciation equation might be something like gobble + gobble = thank you and naptime. Sincere self-evoked feelings of gratitude and appreciation, however, are the only ingredients needed, as explained by IHM founder Doc Childre and Director of Research Dr. Rollin McCraty in the e-book, *The Appreciative Heart: The Psychophysiology of Positive Emotions and Optimal Functioning*.

This publication, which can be downloaded from a special link (<http://www.facebook.com/InstituteofHeartMath>) by *liking* IHM's Facebook fan page, explains how emotions are reflected in heart rhythms and creating a change in those rhythms can result in quick and substantial changes in whatever emotional state you may be experiencing.

The Institute of HeartMath is helping more people experience the benefits of the sincere feelings Thanksgiving celebrates by providing the following helpful exercise:

#### Appreciation Exercise

- **Instructions:** Take a few short appreciation breaks during the day. During each break take one or two minutes to breathe deeply through the area of the heart. While doing so, try to hold a sincere feeling of appreciation in your heart area. This can be appreciation for a family member, friend who helped you with something or even a wonderful vacation, etc.
- **Why it works:** The exercise of activating a positive feeling like appreciation literally shifts our physiology, helping to balance our heart rhythms and nervous system, and creates more coherence between the heart, brain and rest of the body.

Gratitude is a simple and effective practice and the benefits are real and attainable, thanks to modern science. Gratitude creates a healthier, happier and more fulfilling state of being for anyone who takes a few moments to *feel* and reflect on it.

You can follow the Institute of HeartMath on [Facebook](#), [Twitter](#) and [YouTube](#) for more resources and updates. The institute also offers free tips and tools for parents, teachers, caregivers and those who work with children on its *HeartMath My Kids!* Facebook page (<http://www.facebook.com/HeartMathMyKids>).

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#### **About the Institute of HeartMath:**

The Institute of HeartMath, [www.heartmath.org](http://www.heartmath.org), is a 501(c)(3) nonprofit research and education organization dedicated to teaching the principles of heart-based living around the world and promoting global coherence by inspiring people to connect with the intelligence and guidance of their hearts. IHM has been conducting scientific research on the physiology of emotions and the science of the heart for nearly two decades. A world leader in stress reduction and emotion-management research, IHM was founded in 1991 by Doc Childre. Through its research and education divisions, the institute has developed practical tools, education programs and services – collectively known as the HeartMath System – for the mental, emotional and physical benefit of children through seniors without regard to their social, economic or

cultural status. IHM's research has been published in numerous peer-reviewed journals, including *American Journal of Cardiology*, *Stress Medicine* and *Preventive Cardiology*.