

## The A. I. M. Meditation CD

The AIM Meditation CD uses brain entrainment to help the individual to quickly gain the skills of advanced meditators to to develop the ability to use their whole brain and to live in a more balanced state characterized by brain synchronization and whole brain functioning. The following report is a discussion on how and why the use of brain entrainment works to bring about improved health, improve our capacity to learn, be creative, memorize, be in charge of our moods, lower stress, resolve unwanted behaviour patterns, and a multitude of other advantages,

Neuro-chemist **Candace Pert** of the National Institute of Mental Health commented: *"There's a revolution going on. There used to be two systems of knowledge: hard science chemistry, physics, biophysics on the one hand, and, on the other, a system of knowledge that included ethnology, psychology and psychiatry. And now it's as if a lightning bolt had connected the two. It's all one system -- neuro-science... The present era in neuro-science is comparable to the time when Louis Pasteur first found out that germs cause disease."*

The phenomenon of entrainment was discovered in approximately 1665 by a Dutch scientist named Christian Huygens.

He had a room with a number of pendulum driven clocks in it, and he observed that over time the pendulums of all the clocks fell into synchronization with each other. Even if he deliberately started them swinging at different times, he would inevitably return to find they had resynchronized themselves with each other. *He called this synchronization tendency "entrainment".*

Scientific research has proven that advanced meditators develop the ability to use their whole brain and to live in a more balanced state characterized by brain synchronization and whole brain functioning. Some of the most brilliant scientists, technologists and artists throughout history had a high degree of "whole brain synchronisation".

Director of the Institute for Advanced studies in behavioural medicine, **Dr. Charles Stroebel, Ph.D., M.D.**, carried out a sequence of experiments on meditators in the 1970s.

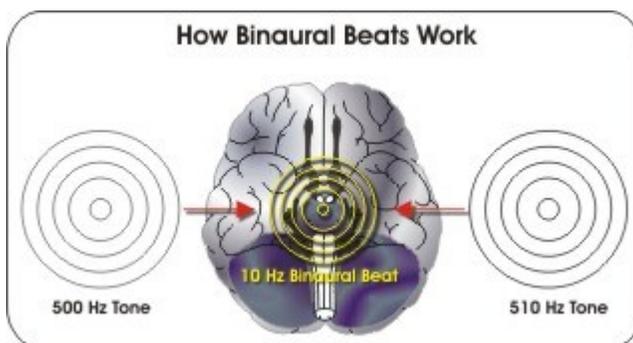
He discovered that during stages of deep meditation the [brain wave](#) patterns of

meditators altered and [both hemispheres of the brain](#) were working in harmony together. When these same people were not meditating, one hemisphere was alternately dominant over the other and they were not working in harmony.

In October of 1973 a remarkable report “Auditory Beats in the Brain” by Dr. Gerald Oster of the Mt. Sinai Medical Center was published in the Scientific American.



It explained, when tones of different frequencies were presented separately to each ear, pulsation's called binaural beats occurred in the brain.



This resulted in the whole brain becoming entrained to the internal beat and resonating to that frequency.

Science ushered in a new era in our capacity to *learn, be creative, memorize, be in charge of our moods, lower stress, resolve unwanted behaviour patterns, and a multitude of other advantages*, with the publishing of this remarkable paper in which **Dr. Gerald Oster's** report discovered a technique called "entrainment" of brain wave patterns.

At the same time, **Robert Monroe** of the Monroe Institute of Applied Sciences was also studying binaural beats. In countless experiments, using an EEG machine to observe the subject's electrical brain wave patterns, Robert Monroe confirmed that he could without a doubt entrain brain wave patterns using binaural beats.

He also noted that the response did not only occur in the area of the brain accountable for hearing, or only in one or the other of the hemispheres, but rather the whole brain resonated, the wave forms of **both hemispheres becoming identical in frequency, amplitude, phase, and coherence**. Many other researchers have also verified this phenomenon.

Language and speech pathologist **Dr. Suzanne Evans Morris, Ph.D.**, says:

*"Research supports the theory that different frequencies presented to each ear through stereo headphones...create a difference tone (or binaural beat) as the brain puts together the two tones it actually hears. Through EEG monitoring the different tone is identified by a change in the electrical pattern produced by the brain.*

*For example, frequencies of 500 Hz and 510 Hz produce a binaural beat frequency of 10 Hz. Monitoring of the brain's electricity (EEG) shows that the brain produces increased 10 Hz activity with equal frequency and amplitude of the wave form in both hemispheres."*

Research by **Dr. Lester Fehmi**, director of the Princeton Behavioral Medicine and Biofeedback Clinic, and possibly the principal authority on hemispheric synchronization in the brain, also confirms that hemispheric synchronization and brain entrainment can be induced by binaural beats.

In a paper entitled "*Tests of the Sleep Induction Technique*" **Dr. Arthur Hastings, Ph.D.**, describes the effects of individuals listening to a cassette tape specifically engineered to create binaural beats in the brain. In this particular case, the sounds on the tape were designed to slow the brain wave patterns from a normal waking "beta" brain wave pattern to a slower "alpha" brain wave pattern, then to a still slower theta pattern (the brain wave pattern of dreaming sleep), and finally to a delta pattern, the slowest of all, the brainwave pattern of dreamless sleep.

Hastings says: We were able to test the effects of the sleep tape on brain waves with an EEG machine through the courtesy of the researchers at the Langley-Porter Neuropsychiatric Institute, part of the University of California Medical School in San Francisco.

**Dr Joe Kaniya**, Director of the Psychophysiology of Consciousness Laboratory, monitored the *brainwave frequencies* of one subject as he listened to the sleep tape. The chart recording showed a typical sleep onset pattern: initial alpha waves, then a

slowing of the brain waves with sleep spindles, and finally a pattern of stage 2 and 3 sleep brain waves in the low theta range...the patterns in the various stages suggested that the tape was influencing the subject's state.

**Dr. Bill D. Schul** also refers to this brain entrainment phenomenon:

Phased sine waves at discernible sound frequencies, when blended to create 'beat' frequencies within the ranges of electrical brain waves found at the various stages of human sleep, will create a frequency following response (FFR) within the EEG pattern of the individual listening to such audio waveforms. The FFR in turn evokes physiological and mental states in direct relationship to the original stimulus.

With the availability of this means, it becomes possible to develop and hold the subject into any of the various stages of sleep, from light Alpha relaxation through Theta into Delta and in REM (dreaming)." His conclusion was that "Binaural beat-frequency stimulation creates a sustaining FFR that is synchronous in both amplitude and frequency between the brain hemispheres.

**The ability to entrain brain wave patterns opens up an exciting world of endless and incredible possibilities. Many neuroscience researchers have expressed their excitement.**

"It's difficult to try to responsibly convey some sense of excitement about what's going on," said UCLA neurophysiologist **John Kiebeskind**. *"You find yourself sounding like people you don't respect. You try to be more conservative and not say such wild and intriguing things, but damn! The field is wild and intriguing. It's hard to avoid talking that way... We are at a frontier, and it's a terribly exciting time to be in this line of work."*

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## Longevity & Beneficial Hormones Released During Meditation.

In certain brain wave frequencies the brain releases numerous highly beneficial substances, including (HGH) *human growth hormone*.

As we become older, the brain creates lesser quantities of these beneficial substances and we therefore develop various ageing symptoms and diseases.

Recent research performed by Dr. Vincent Giampapa, M.D., a prominent anti-aging researcher and past-president of the American Board of Anti-Aging Medicine, revealed that *regular deep meditation dramatically affects production of three important hormones related to increased longevity, stress, and enhanced well-being: cortisol, DHEA, and melatonin.*

At the slower Alpha and Theta brainwave patterns, production of DHEA and melatonin increases significantly.

One study noted an increase in DHEA of as much as 44%.

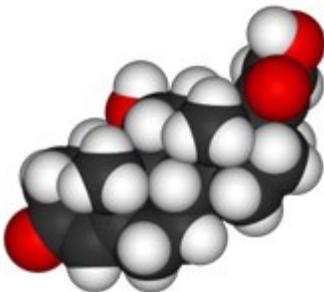
Some even had DHEA increases of up to 90%.

Melatonin increases were even more astounding, with average increases of 98% recorded. Many participants even had increases of up to 300%.

On the other hand, cortisol levels declined by an average of 47%. Of course, not all study participants showed the same results, but about 70% of the study participants recorded the above improvements.

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### Cortisol

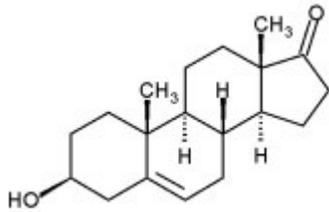


Cortisol is a hormone naturally produced by the adrenal glands. According to Dr. Giampapa, cortisol is the major age-accelerating hormone. It also interferes with learning and memory and is, in general, bad news for your health and your well-being.

Cortisol is the "stress hormone," and the more of it you have, the more stressed you feel...the more vulnerable to disease you are and the faster you age!

**DHEA is extremely important.**

## DHEA



Another hormone, DHEA, is also produced by your adrenal glands. DHEA is a precursor, or source ingredient, to virtually every hormone your body needs.

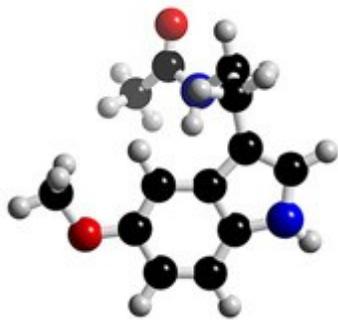
DHEA level is a key determinant of physiological age and resistance to disease. When levels are low, you're more susceptible to aging and disease; when they're high, the body is at its peak—vibrant, healthy, and able to fight disease successfully.

DHEA acts as a buffer against stress-related hormones (such as cortisol), which is why as you get older and make less DHEA you become more susceptible to stress and disease.

A study published in the New England Journal of Medicine (December 11, 1986) found that a 100 microgram per deciliter increase in DHEA blood levels corresponded with a 48% reduction in mortality due to cardiovascular disease—and a 36% reduction in mortality for any reason!

## The benefits of Melatonin

### Melatonin



Melatonin is a hormone produced by the pineal gland and helps to create restful sleep. The inability to sleep soundly can dramatically decrease the quality of your life and greatly speed up the aging process. The production of this important hormone rapidly declines with age.

New research also reveals that Melatonin is a powerful antioxidant. In truth, it is yet more powerful than Vitamin E. Meditation increases the levels of melatonin in the

body.

## Serotonin

Meditation increases the production of serotonin which is a calming neurotransmitter in the brain.

## Human Growth Hormone

It is within delta that our brains are triggered to release great quantities of healing hormones, one of which is human growth hormone (HGH) which we make less of as we age, resulting in many symptoms and diseases associated with aging.

Hollywood stars pay up to \$20,000 a year for synthetic human growth hormone injections, because it brings back youthful energy, looks, and stamina. And I agree, the effects of HGH are dramatic:-

Greater muscle tone,  
Stronger bones,  
Less fat,  
Increased brain function and younger-looking, tighter skin!

HGH is one of the reasons kids have endless energy—their pituitary glands spew out heaps of the stuff!

Unfortunately, your body produces less HGH as you get older—as much as 50% less by our late 50s.

And it shows!

But HGH injections are dangerous, expensive and can cause frightening side effects!!

**Now you know you can produce HGH and many other healing hormones, naturally and safely with a little daily AIM meditation.**

*“By quieting the mind, which then quiets the body, and the less turbulent the body is, the more the self-repair healing mechanisms get amplified. In fact, scientists have shown that the better your DNA, your genetic machinery is at healing itself, the longer you live. That’s how meditation lowers biological age.” Deepak Chopra*

By Michael Mackenzie 😊