

# Binaural Beats

## Video Presentation

<http://www.youtube.com/watch?v=OX7QsXAvyhs>

## Introduction

### What Are Binaural Beats?

Binaural beats are auditory brainstem responses which originate in the superior olivary nucleus of each hemisphere. They result from the interaction of two different auditory impulses, originating in opposite ears, below 1000 Hz and which differ in frequency between one and 30 Hz (Oster, 1973). For example, if a pure tone of 400 Hz is presented to the right ear and a pure tone of 410 Hz is presented simultaneously to the left ear, an amplitude modulated standing wave of 10 Hz, the difference between the two tones, is experienced as the two wave forms mesh in and out of phase within the superior olivary nuclei. This binaural beat is not heard in the ordinary sense of the word (the human range of hearing is from 20-20,000 Hz). It is perceived as an auditory beat and theoretically can be used to entrain specific neural rhythms through the frequency-following response (FFR)--the tendency for cortical potentials to entrain to or resonate at the frequency of an external stimulus. Thus, it is theoretically possible to utilize a specific binaural-beat frequency as a consciousness management technique to entrain a specific cortical rhythm.

## **The "frequency-following response" effect.**

The binaural-beat appears to be associated with an electroencephalographic (EEG) frequency-following response in the brain(3). Many studies have demonstrated the presence of a frequency-following response to auditory stimuli, recorded at the vertex of the human brain (top of the head). This EEG activity was termed "frequency-following response" because its period corresponds to the fundamental frequency of the stimulus (Smith, Marsh, & Brown, 1975). Binaural-beat stimulation appears to encourage access to altered states of consciousness.

## **Various Uses Of Audio With Embedded Binaural Beats**

Uses of audio with embedded binaural beats that are mixed with music or various pink or background sound are diverse. They range from relaxation, meditation, stress reduction, pain management, improved sleep quality, decrease in sleep requirements, super learning, enhanced creativity and intuition, remote viewing, telepathy, and out-of-body experience and lucid dreaming. Audio embedded with binaural beats is often combined with various meditation techniques, as well as positive affirmations and visualization.

## **Resonant entrainment of oscillating systems**

Resonant entrainment of oscillating systems is a well-understood principle within the physical sciences. If a tuning fork designed to produce a frequency of 440 Hz is struck (causing it to oscillate) and then brought into the vicinity of another 440 Hz tuning fork, the second tuning fork will begin to oscillate. The first tuning fork is said to have entrained the second or caused it to resonate. The physics of entrainment apply to biosystems as well. Of interest here are the electromagnetic brain waves. The electrochemical activity of the brain results in the production of electromagnetic wave forms which can be objectively measured with sensitive equipment. Brain waves change frequencies based on neural activity within the brain. Because neural activity is electrochemical, brain function can be modified through the introduction of specific chemicals (drugs), by altering the brain's electromagnetic environment through induction, or through resonant entrainment techniques.

## **The Discovery Of Binaural Beats**

Binaural beats were discovered in 1839 by a German experimenter, H. W. Dove. The human ability to "hear" binaural beats appears to be the result of evolutionary

adaptation. Many evolved species can detect binaural beats because of their brain structure. The frequencies at which binaural beats can be detected change depending upon the size of the species' cranium. In the human, binaural beats can be detected when carrier waves are below approximately 1000 Hz (Oster, 1973). Below 1000 Hz the wave length of the signal is longer than the diameter of the human skull. Thus, signals below 1000 Hz curve around the skull by diffraction. The same effect can be observed with radio wave propagation. Lower-frequency (longer wave length) radio waves (such as AM radio) travel around the earth over and in between mountains and structures. Higher-frequency (shorter wave length) radio waves (such as FM radio, TV, and microwaves) travel in a straight line and can't curve around the earth. Mountains and structures block these high-frequency signals. Because frequencies below 1000 Hz curve around the skull, incoming signals below 1000 Hz are heard by both ears. But due to the distance between the ears, the brain "hears" the inputs from the ears as out of phase with each other. As the sound wave passes around the skull, each ear gets a different portion of the wave. It is this waveform phase difference that allows for accurate location of sounds below 1000 Hz(9). Audio direction finding at higher frequencies is less accurate than it is for frequencies below 1000 Hz. At 8000 Hz the pinna (external ear) becomes effective as an aid to localization. In summary it's the ability of the brain to detect a waveform phase difference is what enables it to perceive binaural beats.

### **How It Works On The Brain**

When signals of two different frequencies are presented, one to each ear, the brain detects phase differences between these signals. "Under natural circumstances a detected phase difference would provide directional information. The brain processes this anomalous information differently when these phase differences are heard with stereo headphones or speakers. A perceptual integration of the two signals takes place, producing the sensation of a third "beat" frequency. The difference between the signals waxes and wanes as the two different input frequencies mesh in and out of phase. As a result of these constantly increasing and decreasing differences, an amplitude-modulated standing wave -the binaural beat- is heard. The binaural beat is perceived as a fluctuating rhythm at the frequency of the difference between the two auditory inputs. Evidence suggests that the binaural beats are generated in the brainstem's superior olivary nucleus, the first site of contralateral integration in the auditory system (Oster, 1973). Studies also suggest that the frequency-following response originates from the inferior colliculus (Smith, Marsh, & Brown, 1975)" (Owens & Atwater, 1995). This activity is conducted to the cortex where it can be recorded by scalp electrodes.

### **Altered States**

Binaural beats can easily be heard at the low frequencies (< 30 Hz) that are characteristic of the EEG spectrum (Oster, 1973). This perceptual phenomenon of binaural beating and the objective measurement of the frequency-following response (Hink, Kodera, Yamada, Kaga, & Suzuki, 1980) suggest conditions which facilitate

entrainment of brain waves and altered states of consciousness. There have been numerous anecdotal reports and a growing number of research efforts reporting changes in consciousness associated with binaural-beats. "The subjective effect of listening to binaural beats may be relaxing or stimulating, depending on the frequency of the binaural-beat stimulation" (Owens & Atwater, 1995). Binaural beats in the delta (1 to 4 Hz) and theta (4 to 8 Hz) ranges have been associated with reports of relaxed, meditative, and creative states (Hiew, 1995), and used as an aid to falling asleep. Binaural beats in the alpha frequencies (8 to 12 Hz) have increased alpha brain waves (Foster, 1990) and binaural beats in the beta frequencies (typically 16 to 24 Hz) have been associated with reports of increased concentration or alertness (Monroe, 1985) and improved memory (Kennerly, 1994).

Passively listening to binaural beats may not spontaneously propel you into an altered state of consciousness. One's subjective experience in response to binaural-beat stimulation may also be influenced by a number of mediating factors. For example, the willingness and ability of the listener to relax and focus attention may contribute to binaural-beat effectiveness in inducing state changes. "Ultradian rhythms in the nervous system are characterized by periodic changes in arousal and states of consciousness (Rossi, 1986;

Shannahoff-Khalsa, 1991; Webb & Dube, 1981). These naturally occurring shifts may underlie the anecdotal reports of fluctuations in the effectiveness of binaural beats. External factors are also thought to play roles in mediating the effects of binaural beats" (Owens & Atwater, 1995). The perception of a binaural beat is, for example, said to be heightened by the addition of white noise to the carrier signal (Oster, 1973), so white noise is often used as background. "Music, relaxation exercises, guided imagery, and verbal suggestion have all been used to enhance the state-changing effects of the binaural beat" (Owens & Atwater, 1995). Other practices such as humming, toning, breathing exercises, autogenic training, and/or biofeedback can also be used to interrupt the homeostasis of resistant subjects (Tart, 1975).

## **Brain Waves and Consciousness**

Controversies concerning the brain, mind, and consciousness have existed since the early Greek philosophers argued about the nature of the mind-body relationship, and none of these disputes has been resolved. Modern neurologists have located the mind in the brain and have said that consciousness is the result of electrochemical neurological activity. There are, however, growing observations to the contrary. There is no neurophysiological research which conclusively shows that the higher levels of mind (intuition, insight, creativity, imagination, understanding, thought, reasoning, intent, decision, knowing, will, spirit, or soul) are located in brain tissue (Hunt, 1995). A resolution to the controversies surrounding the higher mind and consciousness and the mind-body problem in general may need to involve an epistemological shift to include extra-rational ways of knowing (de Quincey, 1994) and cannot be comprehended by neurochemical brain studies alone. We are in the midst of a revolution focusing on the study of consciousness (Owens, 1995). Penfield, an eminent contemporary neurophysiologist, found that the human mind continued to work in spite of the brain's

reduced activity under anesthesia. Brain waves were nearly absent while the mind was just as active as in the waking state. The only difference was in the content of the conscious experience. Following Penfield's work, other researchers have reported awareness in comatose patients (Hunt, 1995) and there is a growing body of evidence which suggests that reduced cortical arousal while maintaining conscious awareness is possible (Fischer, 1971; West 1980; Delmonte, 1984; Goleman 1988; Jevning, Wallace, & Beidenbach, 1992; Wallace, 1986; Mavromatis, 1991). These states are variously referred to as meditative, trance, altered, hypnogogic, hypnotic, and twilight-learning states (Budzynski, 1986). Broadly defined, the various forms of altered states rest on the maintenance of conscious awareness in a physiologically reduced state of arousal marked by parasympathetic dominance (Mavromatis, 1991). Recent physiological studies of highly hypnotizable subjects and adept meditators indicate that maintaining awareness with reduced cortical arousal is indeed possible in selected individuals as a natural ability or as an acquired skill (Sabourin, Cutcomb, Crawford, & Pribram, 1993). More and more scientists are expressing doubts about the neurologists' brain-mind model because it fails to answer so many questions about our ordinary experiences, as well as evading our mystical and spiritual ones. The scientific evidence supporting the phenomenon of remote viewing alone is sufficient to show that mind-consciousness is not a local phenomenon (McMoneagle, 1993).

If mind-consciousness is not the brain, why then does science relate states of consciousness and mental functioning to brain-wave frequencies? And how is it that audio with embedded binaural beats alters brain waves? The first question can be answered in terms of instrumentation. There is no objective way to measure mind or consciousness with an instrument. Mind-consciousness appears to be a field phenomenon which interfaces with the body and the neurological structures of the brain (Hunt, 1995). One cannot measure this field directly with current instrumentation. On the other hand, the electrical potentials of brain waves can be measured and easily quantified. Contemporary science likes things that can be measured and quantified. The problem here lies in oversimplification of the observations. EEG patterns measured on the cortex are the result of electroneurological activity of the brain. But the brain's electroneurological activity is not mind-consciousness. EEG measurements then are only an indirect means of assessing the mind-consciousness interface with the neurological structures of the brain. As crude as this may seem, the EEG has been a reliable way for researchers to estimate states of consciousness based on the relative proportions of EEG frequencies. Stated another way, certain EEG patterns have been historically associated with specific states of consciousness. It is reasonable to assume, given the current EEG literature, that if a specific EEG pattern emerges it is probably accompanied by a particular state of consciousness.

As to the second question raised in the above paragraph, audio with embedded binaural beats alters the electrochemical environment of the brain. This allows mind-consciousness to have different experiences. When the brain is entrained to lower frequencies and awareness is maintained, a unique state of consciousness emerges. This state is often referred to as hypnogogia "mind awake/body asleep." Slightly higher-frequency entrainment can lead to hyper suggestive states of consciousness. Still higher-frequency EEG states are associated with alert and focused mental activity needed for the optimal performance of many tasks. Perceived reality changes depending on the state of consciousness of the perceiver (Tart, 1975). Some states of consciousness provide limited views of reality, while others provide an expanded awareness of reality. For the most part, states of consciousness change in response to

the ever-changing internal environment and surrounding stimulation. For example, states of consciousness are subject to influences like drugs and circadian and ultradian rhythms (Rossi, 1986; Shannahoff-Khalsa, 1991; Webb & Dube, 1981). Specific states of consciousness can also be learned as adaptive behaviors to demanding circumstances (Green and Green, 1986).

### **Synchronized brain waves**

Synchronized brain waves have long been associated with meditative and hypnogogic states, and audio with embedded binaural beats has the ability to induce and improve such states of consciousness. The reason for this is physiological. Each ear is "hardwired" (so to speak) to both hemispheres of the brain (Rosenzweig, 1961). Each hemisphere has its own olivary nucleus (sound-processing center) which receives signals from each ear. In keeping with this physiological structure, when a binaural beat is perceived there are actually two standing waves of equal amplitude and frequency present, one in each hemisphere. So, there are two separate standing waves entraining portions of each hemisphere to the same frequency. The binaural beats appear to contribute to the hemispheric synchronization evidenced in meditative and hypnogogic states of consciousness. Brain function is also enhanced through the increase of cross-collosal communication between the left and right hemispheres of the brain.

### **Resetting Your Brains Sodium/Potassium Ratio In Theta**

Your brain cells reset their sodium & potassium ratios when the brain is in Theta state. The sodium & potassium levels are involved in osmosis which is the chemical process that transports chemicals into and out of your brain cells. After an extended period in the Beta state the ratio between potassium and sodium is out of balance. This the main cause of what is known as "mental fatigue". A brief period in Theta (about 5 - 15min) can restore the ratio to normal resulting in mental refreshment.

## ***What you Will Need***

- **Stereo Headphones (REQUIRED)**

- **A Program to Generate Binaural Frequencies** (I use a program called Brainwave Generator), it can be downloaded here - <http://bwgen.aday.net.au/bwg.rar> (This file comes with every preset ever Uploaded onto their site, you will need a crack to make it Full Version, and Registered to you, you can change the name to yours, simply by opening the "Register" file on Notepad, and changing the name, then saving it. Here is the Crack file - <http://www.mediafire.com/?irbzglzd4yw>

**TIP: If you arent sure which preset to try once the program is installed, a really good one to try is "Feeling of unity with everything" this one is very relaxing, it makes you feel clear headed**

**afterwards, and it Reduces the amount of sleep that you need, I use it everyday**

- **A Nature Sound Generator** (This is Optional of course, but does make the experience more enjoyable ( I use Natura Sound Therapy 3, it can be downloaded here - <http://www.blissive.com/content/view/33/> here is the Serial Number for the program - URKL-W3K8-O2L5-L2N8

- **Another great Nature Sound Generator Program** is "Atmosphere Deluxe 6.0" and it can be downloaded here - [http://www.brothersoft.com/d.php?soft\\_id=18293&url=http%3A%2F%2Ffiles.brothersoft.com%2Fdvd\\_video%2Fvideo\\_tools%2FAtmosphere\\_Deluxe\\_18293.exe](http://www.brothersoft.com/d.php?soft_id=18293&url=http%3A%2F%2Ffiles.brothersoft.com%2Fdvd_video%2Fvideo_tools%2FAtmosphere_Deluxe_18293.exe)

Download the Crack Here - <http://www.mediafire.com/?yumwyzgwnyi>

- **If your looking for a great way to play White, Pink, or Brown Noise, while listening to Binaural Beats, check out - [www.simplynoise.com](http://www.simplynoise.com)**

***That's It!***

# ADDITIONAL INFORMATION ABOUT BRAINWAVES

## Brain Waves in Meditation

The measurement of brain waves in meditation is a relatively recent development, as scientists strive to discover how this ancient practice of meditation can reduce stress, increase feelings of well being, and benefit overall health, among other advantages. It is of specific use to help one increase alertness, relaxation and reflection even in “waking” states. Brain waves in meditation are predominantly those discussed below, while those in normal consciousness are of the beta type. Each type, as discussed below, has specific benefits.

Brain waves in meditation shift through various stages. The most common brain waves in meditation are alpha waves. These alpha brain waves in meditation basically promote changes in the autonomic nervous system that calm it. Regular contemplative practice of this type reverses the roles of the sympathetic and parasympathetic nervous systems so that the normally dominant sympathetic nervous system takes a back seat to the normally secondary parasympathetic nervous system. This lowers blood pressure and heart rate and lowers the amount of stress hormones in the body, as well as calming the mind. One of these stress hormones is cortisol, incidentally, which has been shown to encourage weight gain when it is elevated over the long term.

Gamma brain waves in meditation also greatly increase. Gamma waves denote intense focus and are usually weak and transient in normal brain activity. In experienced meditation practitioners, it was particularly noted that gamma brain waves in meditation were especially high in the left prefrontal cortex of the brain. This is an exciting finding, since this area is often associated with decreased anxiety and fear, positive emotions, and a decrease in depressive feelings or symptoms.

Theta brain waves in meditation are said to help open the “third eye” for practitioners. This “etheric eye” is said to be the channel through which practitioners gain illumination wisdom via vibrations received through the third eye. In practical terms, theta brainwaves in meditation also invoke a deep sense of relaxation and also encourage creativity and make problem solving and memorization easier. Most people have also experienced a theta state, for example, in the condition known as “highway hypnosis,” wherein drivers can perform driving tasks so automatically that they don’t remember making the drive home from their office. Theta waves also present themselves for most people when they do any task that is automatic or nearly so, such as folding clothes, washing hair, etc.

Finally, delta brain waves in meditation are the slowest of all. Everyone experiences delta waves in deep sleep, but delta brain waves in meditation are said to help experienced practitioners access the unconscious mind. Their existence may also be part of the reason that newly learned skills may be best integrated if one “sleeps on them,” since they are associated with people's



ability to integrate newly learned tasks.

## The Following is a list of what Brainwaves will help what types of things

<b>Musicians</b> -	Helps develop Relative Pitch and Perfect Pitch.
<b>Insomniacs</b> - will wake up fell energized.	Delta Waves will help you relax very quickly and fall asleep. You
<b>Artists</b> -	Theta waves can make you more creative. Alpha waves make
colors look more vivid, objects sharper, smells keener	
<b>Daydreamers</b> -	Theta waves can help with guided imagery.
<b>Hypnosis</b> -	Theta and Alpha waves can put you in a hypnotic trance.
<b>Meditate</b> - state.	Theta Waves help you to relax and concentrate in a trancelike
<b>Athletes</b> -	Alpha waves help you to relax in competitions while providing
you with an energy rush and better circulation. You will play "in the zone."	
<b>Depression</b> - brain and body.	Alpha waves release serotonin, dopamine, and endorphins in the
<b>Manic Depression</b> - euphoric state.	Alpha waves can put you in a manic, hyperactive, energetic,
<b>Partygoers</b> - inhibitions.	Alpha waves help you become more social, lowering your
<b>Philosophers</b> - had.	Alpha waves give you insight you never thought you
<b>Social Anxiety Disorder</b> -	Alpha waves help you to relax and socialize.
<b>Time Warp</b> - extremely slow.	Days after listening to Alpha waves, time feels like it is going
<b>ADD, ADHD</b> -	Beta waves can help you concentrate and calm down.
<b>Geniuses</b> - Ginkgo Biloba.	Beta Waves help you to Concentrate without Ritalin, Ginseng, or
<b>Martial Arts</b> - threshold.	Alpha waves speed up muscle reflexes and lowers your pain
<b>Students</b> - your thoughts.	Beta waves can help you concentrate, remember, and organize

Lower brainwaves (Delta, Theta, and low Alpha) may cause stupor and sleepiness. They tend to release serotonin while higher frequencies (Beta and Gamma) release more dopamine. Beta frequencies organize thoughts, helping you to remember things and concentrate. Withdrawal from

Alpha Waves makes you remember childhood memories. Alpha waves relax the body and helps blood flow to extremities.

Pseudo Drug				
Mimics effects of Drug	Delta	Theta	Alpha	Beta
	$\Delta$	$\Theta$	A	B
Adaptogenic			X	
Analgesic	X	X	X	
Anaphrodisiac	X	X		X
Anesthetic	X	X		
Antianxiety		X	X	
Antidepressant			X	
Antispasmodic			X	
Antipsychotic			X	
Aphrodisiac			X	
Bitter			X	
Cardiotonic			X	
Causes Hypertension				X
Circulatory Stimulant			X	
Depressant	X	X		
Diaphoretic		X		
Hallucinogenic		X		
Hypnotic	X	X	X	
Hypotension	X	X	X	
Mydriatic	X	X		
Narcotic	X	X	X	
Nervine	X	X	X	
Photosensitive			X	
Rubefacient			X	
Sedative	X	X		
Spasmolytic	X	X	X	
Stimulant				X
Vasoconstrictor				X
Vasodilator			X	

## **Slower brain waves can keep us healthier: mentally and physically**

Utilizing brainwave entrainment consistently can definitely yield many health-related benefits. Using alpha brain waves can result in calmness, peacefulness, and relaxation - which helps block stress from crippling our immune system. Boosting theta brain waves can improve our health by making us feel younger, giving us more energy, and improving our immune system. And finally, delta brain waves allow us to produce anti-aging hormones, they boost our immune system, and allow our body to replenish itself. Each of those “slower brain waves” sound like they can produce wonderful health benefits. It definitely sounds wonderful that these “slower brain waves” are able to do such a phenomenal job at keeping us healthy.

## **Powerful relaxation and better overall wellbeing**

A common benefit to increasing the amount of slow brain waves [i.e. alpha, theta, delta] in your brain is feeling deeply relaxed. Scientists have found that when the brain is in slower brain wave states [like alpha and theta], it produces specific hormones and “neuropeptides.” These hormones and neuropeptides that are produced have been linked to boosted memory, creativity, and ability to learn.

Each time you lower the baseline frequency of your brain waves, the more you will feel the healthy anti-stress, anti-aging hormones and neuropeptides. These naturally boost your overall level of relaxation and wellbeing. What the slower brain waves also do is increase the amount of beneficial neurotransmitters and endorphins in the brain. For example: using alpha and theta brain waves will increase your overall level of relaxation by increasing the production of serotonin in the brain. Serotonin is an extremely helpful neurotransmitter that has been linked to both mental and physical relaxation. Also, certain slower brainwave frequencies produce endorphins which make us feel good - like a “natural high.”

For these reasons, virtually any time you utilize brainwave entrainment, neurofeedback, meditation, or even yoga, you are able to feel more relaxed and peaceful. What do all of the mentioned exercises have in common? Though they may all be “different forms” of exercising your brain, in the end, they will all slow down your brain waves.

## Why you feel “a natural high” after running

Though you may not know it or remember it, you've likely experienced “a natural high” - also known as, your body being flooded with the production of endorphins. Each time that you go for a run or do any form of hard cardiovascular exercise, endorphins are released. Most people have experienced the benefits of endorphins; whether it be after a long run, basketball game, or other sporting event.

Though you will usually feel very exhausted and were very sweaty after a hard workout, you will also usually feel very good. After working out we naturally feel physically relaxed [and tired], plus - we feel mentally relaxed and calm. Though I highly recommend exercise to increase your overall level of wellbeing, it is not the only activity that will make you feel good by producing endorphins. Any time you utilize brainwave entrainment, neurofeedback, meditation, or yoga, in order to slow your brain waves, you will probably feel the same endorphins [“natural high”] that you did after a strenuous workout.

## How endorphins boost our cognition [i.e. memory and learning]

Though you already know that endorphins allow our bodies to feel a natural high, you may not have known that each time we enter an alpha or theta brain wave state, specific endorphins kick-in that actually boost our overall cognition; they improve our memory and ability to learn. Scientific research has proved that in rats that were injected with endorphins had improved memories - they also were able to run through mazes more quickly. Research has also shown that the production of endorphins can actually reverse amnesia - [a condition in which memory is disrupted].

Researchers have also thought that the parts of the brain that are involved in the production of endorphins, are the exact same areas that are involved with memory and learning. One study even proposed that each time we learn - our brain releases endorphins to reward itself and to help us store our memories. This is why memorizing and ability to learn are boosted each time we have increased production of endorphins in our brains.

Increased endorphins in our brain has been linked to theta and alpha brain wave states of consciousness. Think about it: each time we are able to slow our brain waves to the alpha and / or theta range, it is naturally easier for us to drop our old beliefs and literally “learn” new beliefs. This is why you may have heard that slowing your brain waves down to theta and alpha ranges allows you to re-program your beliefs.

## **How alpha and theta brain waves boost our learning abilities**

Catecholamines, acetylcholine, and vasopressin, are three [among many] of the beneficial hormones and other helpful neuropeptides that are produced in slower brain wave frequencies. Studies have shown that acetylcholine is vital for long term memory. They have also found that when acetylcholine production [in the brain] is high, we experience boosts in our long-term memory. More studies have found that when individuals take supplements that boost the production of acetylcholine in the brain, they are better at learning and have improved memories.

Individuals who have lower levels of acetylcholine usually struggle with tasks involving learning and memory. Individuals with the devastating Alzheimer's disease usually have very low levels of acetylcholine. Theta brain waves have been specifically linked to the production of the neuropeptide vasopressin - a neuropeptide which improves reaction time, ability to learn, and ability to remember. Theta brain waves also have the ability to produce catecholamines which aid once again in our learning process and memory.

## **Boosted attention and alertness**

It is not only our production of neuropeptides that allows us to learn more effectively in slower brainwave patterns. Because theta and alpha brain wave states are linked to relaxation, we experience decreased blood pressure, heart rate, and our entire body feels relaxed. This boosts the overall oxygen level in our brains and maximizes bloodflow to our cortex. This naturally boosts our attention span and level of alertness. Boosted attention and alertness makes it much easier to memorize and learn new things.

## **Slower brain waves and feeling young again**

Are you a person that wishes you could get back some of the same energy you had when you were a kid? Though there are many products on the market to help you: look younger, feel more

energetic, happier, and healthier, many do not work. Why? Because they don't target your brain waves! Research has found that patterns of delta brain waves, theta brain waves, and alpha brain waves, positively affect the production of the hormones: melatonin, DHEA, and cortisol. These three brain wave patterns are able to slow aging, boost relaxation, and increase our overall wellbeing.

In the alpha and theta brain wave ranges, the amount of melatonin and DHEA is significantly boosted in our brains. Research has discovered that DHEA can increase over 50% in certain cases! Even more impressive were the studies on melatonin. Researchers found that slower brain waves boosted the production of melatonin by 300% in some cases! Average melatonin increases were nearly 100%... On top of all the other benefits, the production of cortisol - [a stress hormone usually produced by high-beta brain waves], declined by nearly 50%!

## Increase anti-aging hormones

As mentioned earlier, the hormone "cortisol" is a powerful stress hormone that has potential to actually kill brain cells. It has been linked to sped-up aging, health problems, anxiety, and stress. Because of the problems associated with cortisol, it can have a significantly negative impact on our memory, ability to learn, and our overall wellbeing. It is definitely not favorable to have high levels of cortisol floating around in your body.

With that said, DHEA is a hormone that you want to have plenty of in your body. Like cortisol, it is produced by our adrenal glands. Usually, in your twenties, DHEA production will reach its maximum. In your thirties, DHEA production declines and as you age - it continues to decline. Individuals who are over 70 have roughly 1/5th the amount of DHEA as an individual in their twenties. When our DHEA levels drop low, we are more susceptible to developing disease, getting sick, and aging quickly. The higher we keep our levels of DHEA, the less likely we are to get sick, become stressed out, or speed up our aging process.

Lastly, we notice significant improvements with the hormone melatonin. Melatonin has been linked to better, more restful sleep. You already know that sleep is very beneficial for replenishing the brain and body with vital neurotransmitters and hormones. Each time we get a quality night's sleep, we help ward off the aging process. When we get poor quality sleep, we speed up our aging process. Like DHEA, the amount of melatonin produced in our bodies declines as we get older. For this reason, it is important to lower our brain waves to the alpha and theta rhythms and boost our melatonin levels.

## **Why slower brain waves release helpful neurotransmitters**

Hopefully, you now fully [or better] understand that when you increase your alpha, theta, and delta brain waves [slower brain waves] your brain naturally increases the production of beneficial hormones. This is why many people [including researchers] consider activities such as: brainwave entrainment, meditation, and yoga to be beneficial. Have you ever questioned why the brain produces these helpful hormones and neurotransmitters in the slower brainwave frequencies?

Well, according to scientific research, neurons [“brain cells”] are electrochemically triggered to produce certain neurotransmitters, neuropeptides, and certain hormones at certain brainwave frequencies. Neurons are almost “activated” to produce certain neurochemicals when they are interacting with certain brainwave frequencies. Think of brain waves as communication in the brain. The neurons and the brain communicate by sending specific brainwave frequencies.

This is why each time your brain waves are slowed to the alpha range or theta range, they produce different, more helpful neurochemicals than they would in the beta range. Slowing your brain waves with entrainment is comparable to sending a direct message to your brain cells to start creating helpful neurochemicals. The concept is easy to understand too. Each time you get a quality night’s sleep, your brain shifts to the lower theta and delta ranges.

When you wake up, you usually feel like your energy supply has been replenished... That’s because your energy supply was replenished by the delta and theta brain waves. They produced many helpful, healing hormones and neurotransmitters while you were asleep! Though slower brain waves tend to have a lot of health-related benefits, you should never rule out your beta brain waves. Each brain wave has something helpful to offer / bring to the table.

## **Master your brain with all 4 types of brain waves**

It’s very important for you to understand that though theta brainwaves can be very beneficial and helpful - they are not the most important brainwave pattern. In fact, none of the 4 basic brain wave patterns (beta, alpha, theta, delta) are considered “most beneficial” or “best brainwave.” All brain waves are of equal importance and serve their intended purpose. They all have certain benefits and drawbacks in certain situations.

The key is to cultivate a good combination of each of the 4 brain waves [beta, alpha, theta, delta] in order to take full control of your mind and life. This can be accomplished via meditation or neurofeedback. Both activities allow you to take “conscious” control over your brain wave patterns and consciously “shift” to an optimal brainwave for any given situation. This makes life much easier for us to live because we are able to optimally deal with any situation.

When you are able to incorporate theta brain waves in your life, you may feel peaceful and blissful during a session of meditation, but you may not even be able to remember it! Why? Theta brain waves involve the subconscious mind and if we don't have any alpha brain wave activity to transfer this “subconscious information” to our conscious mind (beta waves) - you'll believe that you know something on a deeper level, but aren't sure what because you cannot remember it!

Accessing alpha, but not being able to tap theta waves will allow you to feel relaxed, more internally aware, but will not have the emotional intensity, creative insights, or the spiritual-connection that can only be accessed through theta waves. This is why being able to tap both the theta brain waves, while also having access to alpha waves, allows our brains to transfer important information, emotions, and insights to our conscious mind [because alpha bridges the gap between the “subconscious mind” (theta waves) and “conscious mind” (beta waves)]. This allows us to actually use the information that our theta range can provide.

Hopefully that last paragraph helped you understand why all four patterns of brainwaves are needed to master the brain. And in case you were wondering about delta brain waves - just think of them as one stage deeper than theta brain waves. In order to transfer information from the delta brainwave range to your “conscious mind,” you need to utilize “theta” (receives information from delta) - “alpha” (receives information from theta) - and “beta” (receives information from alpha). This allows us to be consciously aware of even the deepest universal knowledge and truths.

As you may have already guessed, mastering your brain waves will allow you to live the life of your dreams and consciously create your reality. However, it takes work - and, most people don't put in work... Which is why a minority of the population is able to live out their dreams! Anyways, the key is to be sure you're in an optimal brain wave state for your given situation. For more information on each of the various brainwaves, and understand which brainwave pattern is optimal, check out each of the descriptions posted below!

# DELTA



### **Delta Brain Waves ( 0.5 to 4Hz)**

- 0.5 Hz - Relaxation, helps soothe headaches
- 0.5 - 1.5 Hz - Pain relief. Endorphin release
- 0.9 Hz - Euphoric feeling
- 1 Hz - Well being. Harmony and balance
- 2.5 Hz - Production of endogenous opiates (pain killers, reduce anxiety)
- 2.5 Hz - Relieves migraine pain. Produces endogenous opiates
- 3.4 Hz - Helps achieve restful sleep
- 3.5 Hz - Feeling of unity with everything. Whole being regeneration
- 3.9 Hz - Self renewal, enhanced inner awareness
- 4.0 Hz - Enkephalin release for reduced stress
- 4.0 Hz - Allows brain to produce enkaphalins, all natural pain killer
- 4.0 Hz - Full memory scanning. Releases enkephalins
- 4.0 Hz - Vital for memory and learning. Problem solving, object naming
- 1 - 3 Hz - Profound relaxation, restorative sleep. Tranquillity and peace

### **What are delta brainwaves?**

Delta brainwaves are considered the most relaxing brainwave frequency range. Delta brainwaves are commonly associated with the deepest sleep [stages 3 & 4] and a state of unconscious awareness. Delta brainwaves are the lowest in brainwave frequency: ranging from 0 - 4 Hz, but are the highest in amplitude. Delta brainwaves, like other slower brainwave patterns, are generated in the right hemisphere, though they may be observed in widespread patterns throughout various parts of the brain. The delta brainwave range is associated with empathy, the unconscious mind, and a decreased sense of awareness.

### **Benefits of increasing delta brainwaves:**

**Release of Anti-Aging hormones** - One of the associated benefits of increasing your delta brainwaves is the release of anti-aging hormones. The delta brainwave pattern stimulates the release of melatonin and DHEA, 2 powerful anti-aging hormones. The delta brainwaves are also associated with decreased levels of cortisol - a hormone linked to stress that has been scientifically proven to speed up the aging process.

**State of empathy** - Delta brainwaves can provide you with the ability to read other people's emotions and determine their feelings at unconscious levels. In healthy amounts, delta brainwaves cause a person to have an advanced state of empathy, understanding, and compassion for others. If you are always able to relate to others and can "read other people's minds," you probably have more delta than the average person. If you find yourself getting into trouble for not being considerate enough or for "stepping on other people's toes," you may have less overall delta brainwave activity.

**Extreme bliss** - Advanced meditation practices and yogic traditions have associated the delta brainwave frequency range with a feeling of all-encompassing bliss. Since most people aren't able to consciously experience the delta brainwave state, it may be tough to feel extreme bliss from the delta waves like the yogis, monks, or advanced meditators. With that said, there have been people that have testified to feeling the bliss associated with the delta brainwave while performing extremely deep meditation.

**Advanced healing of body and mind** - The delta brainwave rhythm is known to completely rejuvenate, replenish, and heal the entire body and brain. The delta brainwave revives the body after a hard day by regenerating necessary chemicals while a person is asleep. Due to the deepest levels of relaxation that the delta brainwave provides, the body and mind are easily able to restore themselves after minor stress, a rigorous workout, or after boosting your brain power.

**Human Growth Hormone (H.G.H.) Release** - The delta brainwave is associated with the stimulation of the pituitary gland, which in-turn, is able to release human-growth-hormone — commonly referred to as H.G.H. It doesn't release enough for you to skyrocket in height and weight. The delta brainwave will not provide adults with a second version of puberty. With that said, there is evidence that it does release slight amounts of H.G.H. in certain individuals. If you are looking to increase your H.G.H., you should definitely consider using delta brainwave entrainment and evaluate how it works out for you!

**Connection with unconscious mind** - Though the alpha and theta brainwaves are capable of bridging the gap between conscious thoughts and the subconscious mind, the delta brainwave allows us to connect deeper: it allows us to connect with the deepest possible level of our consciousness. The goal of many meditation practices is to experience and consciously control the unconscious mind. The subconscious mind, or our brain's right-hemisphere, becomes activated when slower brainwaves like alpha, theta, and delta waves kick in. If you spend too much time in beta, it may feel incredible to finally relax and give yourself a chance to connect with your deepest sense of awareness.

**Deepest possible level of mind / body relaxation** - Delta brainwaves while a person is conscious or awake, are extremely rare. However, advanced meditators and infants, are 2 groups of people that are able to enjoy the deeply relaxing benefits of the delta brainwave. Remember what you felt like when you were an infant? Probably not - the delta brainwave is associated with extreme relaxation, yet completely unconscious mental processes.

**Perfect intuition** - Ever have a powerful gut-instinct that helped you make a good decision? Or a gut-instinct that you should've followed? If we get ourselves too caught up in the upper brainwave patterns of beta, our intuitiveness becomes severely damaged. As you increase your theta brainwaves and your delta brainwaves, your intuition will increase and so will your ability to recognize the feelings in your "gut." There are some disagreements as to whether or not the theta brainwave patterns are better for intuition vs. the delta brainwave patterns, but most research suggests that if you can become consciously aware in the delta brainwave state, you will have a nearly perfect sense of intuition.

**Connecting with the spiritual body** - Many consider the delta brainwave to bridge the conscious mind with higher planes of reality, the subconscious mind, and / or the unconscious mind. Advanced spiritual gurus have considered the lowest brainwave pattern, delta, one that connects their spirit and their body to a universal life energy. Becoming consciously aware of experiencing the delta brainwave frequencies has been associated with the deepest sense of spirituality, highest sense of internal awareness, and feeling directly connected to a Higher Power.

**Paranormal Experiences** - People are especially open to O.O.B.E.'s (Out Of Body Experiences), astral travel, connecting with spiritual beings (i.e. "spirit guides," "angels," etc.), E.S.P., and other phenomenon in the delta brainwave range. Though most paranormal and psychic experiences can be argued to be real or fake, there is evidence that most people tend to have them when their brain is producing higher than average amounts of delta, and /or theta brainwaves. Though spiritual experiences and phenomena are commonly experienced in the theta brainwave state, the delta brainwave state has been associated with many too!

**Boosted immune system** - Increasing your delta brainwaves can lead to a boosted immune system due to the fact that delta brainwaves are associated with age-reversal or slowing, the production of healthy hormones, and significantly decreased amounts of stress. Increasing your delta brainwaves can lead to a boosted immune system due to the fact that delta brainwaves are associated with healing and rejuvenation of the body. Stress and too much anxiety can do harm to the immune system by releasing harmful chemicals such as epinephrine (adrenaline) and too much of the hormone: cortisol, associated with the adrenaline release. The delta brainwave releases pleasant chemicals and neurotransmitters to help keep your immune system at arguably its highest rate of performance.

## Who has high amounts of delta brainwaves?

**Advanced Meditators** - The goal of many meditation practices is to increase the amount of slower brainwave patterns. Usually, after practice, meditators are able to become consciously aware in the alpha, and possibly the theta brainwave ranges. It takes a rigorous amount of meditation and dedication to become consciously aware during the delta brainwave state. After you gain a lot of meditation experience, you can eventually learn how to shift your brainwaves from the beta range, through the pleasant calmness of alpha, into the extraordinary theta range. If you get lucky, you'll eventually cultivate awareness in the delta range. Experienced meditators are able to recognize and control their state of awareness and brainwaves. Like any practice, the more you do it, the better your chances of passing through the alpha brainwave range, into theta, and from theta into the delta brainwave rhythm.

**Infants** - The delta brainwave is the dominant rhythm in infants up to 1 year of age. It would be extremely rare for an infant to display any of the upper range brainwave frequencies like beta. The delta brainwave really promotes great neural development and molding of the brain formation.

**Young Children** - Younger children tend to have extremely high levels of theta and delta brainwaves compared to adults. Most young kids display very low amounts of higher brainwave frequencies like beta brainwaves, yet display a lot of lower frequency brainwaves in the alpha, theta, and delta ranges. Though most children with A.D.D. have abnormally high amounts of theta brainwave activity, some have large amounts of delta — making it nearly impossible for them to concentrate.

**Individuals With A.D.D. or A.D.H.D.** - The majority of individuals with ADD or ADHD tend to have brains that produce too much theta brainwave activity. With that said, it is not uncommon to find an individual with ADD or ADHD that cannot concentrate because they have too much delta brainwave activity and not nearly enough beta brainwave activity. Individuals with ADD can exhibit a number of different brainwave combinations. Some people have: high amounts of delta brainwave activity or a combination of theta and delta brainwaves with virtually zero beta activity. Having too much of the delta brainwave activity explains why ADD people aren't able to concentrate well and find it impossible to stay on task. (On a personal note, I have been able to cure my ADD by staying disciplined to a set of 5 daily steps).

**People with brain damage** - People with head trauma, concussions, and other forms of brain damage, tend to have much higher amounts of delta brainwaves than other people. People in a coma, with brain tumors, or any other problem that can cause brain injury or damage usually produces many of the slower delta brainwaves or theta range brainwaves. When people say they got "knocked out," they really were "knocked out" due to the increased production of delta brainwaves as a consequence of their injury. Allowing things to kill your brain cells will not help promote a healthy delta brainwave.

**People who've had N.D.E.'s (Near-Death Experiences)** - People who have had a Near-Death Experience, tapped into their delta brainwave activity during their experience. Many times people often report a disconnection from their body, getting a glimpse of the afterlife, and / or floating sensations. Though this topic is highly controversial, most agree that the person with the N.D.E. was in the delta brainwave range.

Just like any of the other brainwave patterns, too much of a dominant rhythm can cause problems. By no means would it be recommended to increase a brainwave that you already have high levels of. In fact, you may experience some negative affects from too many delta brainwaves.

### **Problems associated with too many delta brainwaves:**

**Packing on excess "emotional baggage"** - If you've ever been told that you worry too much about the emotions of others or literally "feel what others are feeling," chances are good that you have too much delta. While some people may enjoy increased empathy, others may feel like they are too caught up in other people's emotional lives. The delta brainwave can definitely make you pack on too many extra emotions if you aren't prepared.

**Extremely unfocused mind** - Not everyone may particularly enjoy an increased amount of delta brainwaves in their waking E.E.G. The delta brainwave range has been linked to extremely unfocused, unconscious thinking, and ADD. The delta brainwave range can increase mental foginess, dreaming, and forgetfulness. If you are already extremely unfocused, increasing your delta brainwaves isn't recommended.

**Extreme sleepiness** - Since the delta brainwave pattern has been linked to the deepest stages of dreamless sleep, increasing this brainwave may make you feel more sleepy than you normally do. The delta brainwave is found in individuals that are sound asleep. Drowsiness and extreme sleepiness will occur if the delta brainwave is displayed while a person is awake. When increasing your delta brainwaves, it is extremely common to fall asleep as your brain is being trained. You will wake up feeling refreshed though. It is very difficult to stay aware in the delta state of consciousness unless you are advanced in the practice of meditation.

**Hyperactivity** - Because the brain is functioning at the slowest possible brainwave pattern, the central nervous system uses up virtually zero energy. All of the energy that you've accumulated throughout the day from eating food needs to be put to use somehow. Having too much delta brainwave activity allows your brain and CNS to get by with very little energy. Since the brain and CNS use less overall energy, the excess energy is expressed in some people through hyperactivity.

## Healthy ways to increase delta brainwaves:

**Brainwave entrainment** - As I mention a lot, brainwave entrainment is great for fine tuning your state of consciousness and awareness. If you want to easily and naturally experience delta brainwaves, I recommend trying any of the programs in my “recommended products” section. Brainwave entrainment is an easy process that involves simply listening to a tone (stimulus) and your brainwaves will automatically, naturally shift in order to match the desired frequency associated with the acoustic tone. While delta brainwave states usually occur in deep sleep, it is possible to train yourself to remain awake while experiencing the delta brainwave.

**Getting a good night's sleep** - Delta activity is present in stages 3 and 4 of sleep. Getting a good night's sleep is important for staying healthy, keeping a healthy, powerful brain. Though delta brainwaves will not increase when you wake up the next day, they are highly prevalent in your brain while you are deeply asleep. Most non-dream, deep sleep is linked to an increase in delta brainwave activity, whereas dream-sleep is mostly linked to theta brainwave activity.

**Meditation** - The goal of most types of meditation is to lower the brainwaves into the alpha-theta brainwave range. A very safe, healthy way to attempt to increase your delta brainwaves is to make the act of meditation a daily habit or start up a meditation routine. If you are already meditating, great - you'll naturally increase your flexibility to travel through the alpha brainwave range, possibly through the theta brainwave range, and into the depths of the delta brainwave range.

**Hypnosis / Self-hypnosis** - The goal of all hypnosis and self-hypnosis programs is to target the lower brainwave ranges (i.e. alpha and theta) and implant new beliefs. If you practice frequent enough, and long enough, you may find that you are able to tap into your inner delta brainwave awareness.

**Yoga** - Like meditation, yoga is yet another activity that promotes relaxation and wellbeing by shifting your brainwaves to the calming patterns of alpha, theta, and sometimes delta. The yogic phenomenon of suspended animation has been claimed to only take place in the delta brainwave range. Though there are many different types of yoga, if they are practiced correctly, they can be utilized to slow brainwaves to tap the delta awareness and insight from within.

## Unhealthy ways to increase delta brainwaves:

**Skipping sleep** - Depriving yourself of a good night's sleep or completely skipping sleep will increase the amount of cortisol (a hormone associated with stress and aging) and will flood your brain with a combination of unfocused brainwaves: mostly theta, some delta and in some cases high-beta. If you have ever pulled an "all nighter," you'll know that skipping sleep makes you feel extremely unfocused, dizzy, and confused. This is due to a combination of unbalanced chemicals, hormones, and brainwaves. Not a wise idea to skip sleep to increase your delta brainwaves.

### **Final evaluation of delta brainwaves:**

I personally think that delta brainwaves are very unique to experience and everyone has a different reaction. The deep spaced-out connection associated with delta activity can feel great. You should be the judge as to whether or not increasing delta is the brainwave you want to experiment with. If you are already experiencing many of the listed "benefits," your delta brainwave could be within it's healthiest range.

Are you already a mentally fogged person? If so, chances are good that your brain could be naturally producing some delta brainwave activity. However, most people do not have large amounts of the delta brainwave unless they are in the deepest sleep stages. If you are experiencing too many of the listed negative effects, you may want to consider speeding up your brainwaves into the beta range.

I personally recommend entraining the delta brainwave to see how you react. Most people don't produce large amounts of delta naturally. There is no evidence that the delta brainwave can even be entrained, but there are people who claim that sessions help heal the body and brain during sleep if entrained with Neuro-Programmer 2 Professional. If you purchase Neuro-Programmer 2 or any of my recommended brainwave products, you can create a customized delta brainwave session or use a specialized one that's already built into the library. The built in delta sessions are great — I've personally had success with them. If you are confused about your brainwave pattern, consider giving Neuro-Programmer 2 Professional some experimentation and seeing how your brain reacts and your reality is shifted.

### **If you'd like to experience Delta brainwaves:**

If you have ever given delta brainwaves a shot, I'd really like to hear your experience in the comments section. If you are interested in experiencing some delta brainwaves or have any questions for me, feel free to send me a message through my contact form. I appreciate when you buy products through my referral ads to help me pay for blog hosting services and the promotion of this blog! Increasing your delta brainwave pattern is definitely an experience that has potential to boost your brain power and help you connect with your deepest, spiritual sense of awareness.

# THETA

## **Theta Brain Waves ( 4 to 8 Hz)**

- 4.5 Hz - Brings about Shamanic/Tibetan state of consciousness, Tibetan chants.
- 4.9 Hz - Induce relaxation and deeper sleep
- 4.9 Hz - Introspection. Relaxation, meditation
- 5 Hz - Reduces sleep required. Theta replaces need for extensive dreaming
- 5.35 Hz - Allows relaxing breathing, free and efficient



- 5.5 Hz - Inner guidance, intuition
- 6.5 Hz - Centre of Theta frequency. Activates creative frontal lobe
- 7.5 Hz - Activates creative thought for art, invention, music. Problem solving
- 7.5 Hz - Ease of overcoming troublesome issues
- 7.83 Hz - Schumann earth resonance. Grounding, meditative, Leaves you revitalized
- 3 - 8 Hz - Deep relaxation, meditation. Lucid dreaming
- 3 - 8 Hz - Increased memory, focus, creativity
- 4 - 7 Hz - Profound inner peace, emotional healing. Lowers mental fatigue
- 4 - 7 Hz - Deep meditation, near-sleep brainwaves.

Theta brainwaves are considered extremely relaxing brainwave activity that is commonly associated with sleep and dreaming. Theta brainwaves are high in amplitude and cycle within the range of 4 – 8 Hz and are usually generated in the brain's right hemisphere. Theta waves kick in when we feel emotional, relaxed, daydreamy, unfocused, or are asleep. Theta brainwaves are generally thought of as the brainwaves that are dominant in people with A.D.D., high levels of relaxation, high levels of creativity, and random thinking. The theta brainwave is considered the brainwave pattern that is dominant in deeply relaxed, dream sleep.

Theta brain waves typically range from 4 Hz to 8 Hz. Theta brain waves are associated with the “subconscious mind” and are usually produced in the right-hemisphere of the brain - as opposed to beta brain waves, which are produced in the left-hemisphere and are associated with the “conscious mind.” The brain creates theta brain wave rhythms each time you are in “dream sleep.” Also, during R.E.M. [Rapid-Eye Movement] sleep, the brain is full of theta brain wave activity.

Nearly 3/5 of your entire time spent sleeping at night involves the production of theta brain waves in your brain. Many individuals also are able to access theta brain waves when they are: driving for a long stretch on the highway, practicing their meditation routine, using a self-hypnosis recording, or practicing other forms of deep relaxation. When you are able to consciously access the alpha brain waves state, you are just one step away from accessing the depths of theta.

What's cool about theta brain waves is the fact that they allow you to connect with your “subconscious mind.” The subconscious mind is the place where all experiences, long-term memories, natural creativity, powerful emotions, spiritual connections, and inspiration are all stored. Think of the “subconscious mind” as one big, infinite storage space for “everything” in your life. The theta brain waves are extremely helpful for healing the body of injury and the mind of diseased-states.

## Benefits of increasing theta brain waves:

**Deep levels of relaxation** - Theta brainwaves while a person is awake is extremely uncommon. However, advanced meditators and children are 2 groups of people that are able to enjoy the deeply relaxing benefits of the theta brainwave. Remember what you felt like when you were a kid? The theta brainwave is a carefree state of mind that makes you feel emotionally connected with others.

**Emotional connection** - The theta brainwave range is associated with strong, powerful emotions. The cool thing about theta brainwaves is as they increase, so does the intensity of your emotions. Often times beta brainwaves can block out our emotions or not allow us to fully experience our natural emotions. As theta brainwaves return or are strengthened through relaxation techniques or brainwave entrainment, we can learn to feel and understand our emotions better.

**Advanced intuition** - Ever have a powerful gut-instinct that helped you make a good decision? Or a gut-instinct that you should've followed? If we get ourselves too caught up in the upper brainwave patterns of beta, our intuitiveness becomes severely damaged. As you increase your theta brainwaves, your intuition will increase as well as your ability to recognize those feelings in your "gut."

**Subconscious connection** - Though the alpha brainwave is capable of bridging the gap between conscious thoughts and the subconscious, the theta brainwave allows us to deeply connect with our subconscious mind. The subconscious mind, or our brain's right-hemisphere becomes activated when slower brainwaves like alpha and theta waves kick in. If you spend too much time in beta, it may feel incredible to finally relax and allow yourself to connect with your subconscious mind.

**Peak levels of creativity** - The theta brainwave is often found in highly creative individuals. Many talented musicians, inventors, and artists are found to have extremely higher than average amounts of theta brainwaves. Musicians and artists are also able to utilize software like Neuro-Programmer 2 in order to help them increase their creativity when it runs dry. Utilizing the theta brainwave will definitely enhance your overall levels of creativity!

**Advanced problem solving skills** - The problem associated with having too much of the beta brainwave pattern is the inability to problem solve and get past "mental blocks" by thinking creatively. Ever get writer's block? Increasing your theta or alpha brainwaves will most likely help you keep "flowing" right through your paper or article without getting "stuck." I've heard cases of alpha brainwaves used to help prevent writer's block and I've also read that theta waves were very effective.

**Lower anxiety, stress, and neurosis** - Lowered levels of stress and anxiety is yet another benefit that the theta brainwave can bring to your life. Not all people with large amounts of theta waves are relaxed, but the theta brainwave band has been linked to lower levels of anxiety, stress, and neurosis. Increasing the total amount of theta brainwaves will help slow rapid thoughts and will make you feel more comfortable in your own body.

**Learning a new language** - There has been plenty of research done on language learning and development. The claim that children are able to pick up new languages so quickly is because of their increased amount of theta brainwaves. Adults and students of a new foreign language may greatly benefit from shifting their brainwaves to the theta range.

**Bridges the spiritual connection** - Many consider the theta brainwave to be a bridge between the physical body and spiritual body. The theta brainwave has been associated with deeper spirituality and a deep spiritual connection. According to some, the theta brainwave range

provides enhanced spiritual awareness and profound insight. Many spiritual experiences and phenomena are commonly experienced in the theta brainwave state.

**Ability to program subconscious mind** - There is some evidence to believe that by targeting the lower brainwave patterns and using affirmations or positive self talk, you can change some of your deepest unconscious beliefs or emotional blockages. In the theta brainwave range, the brain is extremely open to suggestion and new ideas. It is the openness of the brain in the theta frequency range that constitutes the ability to re-program the brain.

**Paranormal Experiences** - People are especially open to psychic experiences, OOBES (Out Of Body Experiences), visions, ESP, and other phenomenon in the theta brainwave range. Though most paranormal and psychic experiences can be argued to be real or fake, there is evidence that most people tend to have them when their brain is full of theta brainwaves. Psychics are supposedly able to tap the theta brainwave range in order to connect with higher spirits and the divine.

**300% boost in learning ability** - Though the alpha brainwave spectrum (8 - 12 Hz) has been associated with "super learning" abilities, the theta brainwave frequency range has been heavily linked to profound learning benefits. As your mind is able to enter the frequencies of the theta range, you will be able to retain over 300% more information than you can while in the beta brainwave state. The theta brainwave allows people to learn large amounts of information in a much quicker time than the beta brainwave state and may even be quicker than the alpha brainwave for some activities.

**Boosted immune system** - Increasing your theta brainwaves can lead to a boosted immune system due to the fact that theta brainwaves are associated with vitality and usually zero stress. Stress and too much anxiety can do harm to the immune system by releasing harmful chemicals such as epinephrine (adrenaline) and too much of the hormone: cortisol, associated with the adrenaline release. The theta brainwave releases pleasant chemicals and neurotransmitters to help keep your immune system at it's peak.

**Improved long-term memory** - As theta brainwaves increase, the ability of the brain to recall and store long-term memories increases. The hippocampus, a part of the brain involved in memory processing and storing memories, has a normalized theta brainwave rhythm passing through this area. As we become more stressed out, the beta brainwaves throw the normalized theta brainwaves of the hippocampus out of sync. This is why stressful people usually have poorer ability to recall long-term memories. Often times therapists and hypnotherapists try to slowly open up traumatized clients to the theta range in order to recall repressed memories. The therapists help the client shift to this brainwave range in order to recall the repressed memory and help talk them through the event.

**Ability to hyperfocus** - Many people with high amounts of theta brainwave activity are able to "get in the zone" and stay intensely focused and motivated with one idea. Many people with ADD or ADHD attribute their success in certain areas of life to their ability to hyperfocus. Hyperfocus is a unique phenomenon that can really only be experienced in the theta brainwave range. Some meditators have also claimed to have learned the hyperfocus ability.

**Healing of body and mind** - The theta brainwave rhythm is well-known to rejuvenate, replenish, and heal the body and mind. The theta brainwave is known to reset your brains sodium /

potassium ion ratio. When you get yourself heavily involved in the upper frequencies of the beta range, your brain's sodium / potassium ion ratio is severely thrown out of sync. Due to the deep levels of relaxation that the theta brainwave brings, the body and mind is easily able to restore itself after a tough mental or physical workout.

## **Theta brain waves: tap the subconscious**

Theta brain waves are such an important pattern of brain waves due to their ability to grant us access to our subconscious mind power. Accessing the theta rhythm allows us to influence and consciously control our "subconscious mind." How does this happen? Well, each time you are in theta, you are able to pass through your conscious mind. Passing through your "conscious mind" is often a good idea. Why? Because our conscious minds' beta-brain wave activity usually acts as a "fence" or "gate."

This "gate" often can prevent us from manipulating or changing our deep-rooted thought patterns in our subconscious mind. This "gate" can also make it very difficult for us to change our emotional state, thought patterns, limiting beliefs, and attitudes if we don't know how to pass through it. Another interesting fact is that our "subconscious mind," accepts any affirmations, incantations, or statements that you feed it. It doesn't question the statement or think about the statement, it begins to act upon the statement immediately!

For this reason, it is actually quite easy to get rid of any negative emotions or thought patterns if you are able to access this state. You can get rid of these thought patterns by implanting new beliefs into your "subconscious mind." This is why accessing the subconscious mind via hypnosis can have a powerful effect on a person. The reason hypnosis can be successful is because it allows you to pass through the "gate" and add any desirable affirmations, statements, and beliefs directly inside your subconscious mind.

## **Access your inner "Zen"**

Scientists have known that during deep meditation, the amplitude (strength) of theta brain waves will increase. The deeper you are able to go into meditation, the more powerful your theta brain waves will be. Scientists also have discovered the fact that the emotions for "bliss" and deep internal "peace," are only felt when theta brain waves are dominant on the E.E.G.

Want to amp up your spiritual life? Well, it has also been noted by researchers that it is theta brain waves that allow individuals to experience their "strongest spiritual connection." Certain scientists even believe that it is possible to speed-up the process of connecting with the spirit. After this research, many personal development products and practices were created. Many of these personal development products created lots of hype because they seemed like the quickest

way to feel “bliss” and “peace” - without spending years meditating.

They claimed to help individuals access their “inner Zen” and also claimed they would experience great health-related benefits. These products included relaxation programs, brainwave CD’s, and self-hypnosis recordings. Many of these will not work to help you access your “inner Zen,” but some definitely do. One product that I frequently use and highly recommend is Neuro-Programmer 2 Professional. Thus far, it has allowed me to have better control of my mind, state of consciousness, and emotions. I highly recommend at least giving the free 30 day trial version a shot if you don’t want to buy it!

## Theta brain waves linked to “ah-ha” moments

Though alpha brain waves have been linked to “ah-ha” moments, many individuals have experienced them in the theta brain wave range as well! Since theta brain waves are associated with the creativity, infinite data, and inspiration of the “subconscious mind,” it makes perfect sense that “ah-ha” experiences occur in this brainwave range. For this reason, you can usually hear famous musicians, scientists, writers, actors, and other creative individuals discuss how they “found inspiration.”

Many people assume that researchers only spend all day slaving away in a laboratory with little mice trying to make a breakthrough discovery. What’s interesting though, is the fact that most (if not all) of major scientific breakthroughs and / or inventions have been a result of intuitive guidance via mental imagery, dreams, and hunches that scientists received when their brains’ were in the theta brain wave range and they had some access to their subconscious mind.

These scientists were usually: relaxing, sleeping, driving home from work, and doing non-work related activities! During these “ah-ha” moments that many scientists have had, their brains’ were full of activity in the subconscious mind. The majority of the best scientists are completely aware of how the “subconscious mind” works. Just to name a few geniuses such as: August Kekulé, Thomas Edison, Albert Einstein, have all tapped the power of their subconscious mind to help them make huge breakthroughs.

As you may now understand, your ability to utilize and harness the power of your subconscious mind is an extremely important factor in determining the success of many individuals (i.e. scientists, authors, researchers, musicians, etc.). Are you currently utilizing the power of your subconscious to help you solve problems or stay inspired? If not, just take a second to think about how much more efficient and powerful you could be if you were able to ‘shift’ into theta brain waves when you felt it necessary!

Unfortunately, many people aren’t able to access this theta brain waves state of consciousness due to certain factors such as: stress and disease. For these individuals, Neuro-Programmer 2 Professional will definitely get them on the right track.

## Waking up in theta brain waves?

Each time that theta brain waves flood your brain, you are temporarily detached from your body and awareness. This is why each time you wake up when your brain is in the theta phase of your sleep cycle, you won't remember anything. If you've ever laid down to relax, ended up falling asleep, and then woke up long past your normal waking time, you've likely experienced some quality theta brain waves.

Remember, that how you feel and your entire "waking up" experience depends completely on the brainwave pattern of sleep you're in before awakening! Below is a recap of the basic brain waves that you can awaken from and what you'll likely feel like in each state.

## How you feel when waking - phase of sleep cycle

**Each brainwave state it is possible to wake up from:**

Alpha brain waves: You will feel extremely energized, pumped-up, alert, awake, and ready for whatever the day has to bring. When waking in this state, you'll also be able to completely remember most of your dreams from throughout the night.

Theta brain waves: You will feel very surprised that so much time has passed while you were asleep. You won't remember the act of falling asleep. The last thing you'll remember is laying down on your bed - before you realize it, it's already the morning! Each time you wake up in the theta brain waves state and your brain doesn't shift from: theta to alpha before going into the beta brain waves state, you won't recall any of your dreams.

Delta brain waves: It is extremely tough for any individual to wake up if their brain is producing mostly delta brainwaves. However, if you do happen to wake up during this phase of sleep, you will feel irritable, unaware, and very tired. It will take a lot of effort to get yourself out of bed! Definitely not a good phase of brain waves to wake up in!

## Who has high amounts of theta brainwaves?

**Extroverts** - Compared to introverts, extroverts have more lower brainwave patterns in the alpha and theta ranges. Extroverts with low traits of neurosis and anxiety were found to have high levels of certain theta brainwave frequencies that introverts did not.

**Meditators** - The goal of many meditation practices is to increase the amount of slower, alpha and theta brainwave patterns. After a lot of meditation experience, you can eventually learn how to shift your brain from the beta range, through the pleasant calmness of alpha, into the extraordinary theta range. Experienced meditators can recognize and control this state of awareness. Like any practice, the more you do it, the easier it will become to pass through alpha and into the theta brainwave range through meditation.

**Children** - Children tend to have extremely high levels of theta brainwaves compared to adults. Though everyone has some degree of theta activity, most adults have an extremely tiny amount. Though the theta brainwave is very mysterious, it is a relatively safe brainwave. Virtually all children and people with A.D.D. have large amounts of theta brainwave activity. As we age, the beta brain wave pattern tends to increase and dominate the other patterns. That's why many adults would definitely benefit from a theta or alpha brain wave boost more than young people.

**Individuals With ADD or ADHD** - Individuals with ADD or ADHD tend to have brains that produce too much theta brainwave activity and not nearly enough beta activity. Having too much theta brainwave activity explains why ADD people aren't able to concentrate well and have a tougher time staying on task. On a personal note, I have been able to cure my ADD by staying disciplined to a set of 5 daily steps.

**Extremely stressed individuals** - The most advanced stages of stress (i.e. being extremely stressed out for more than a few months) will cause your brain to eventually enter the theta brainwave state due to a burnout of the central nervous system. As you produce too many high beta brainwaves for longer than a few months, your brain will eventually be extremely low in alpha brainwaves, extremely low in low-beta brainwaves, and full of desynchronized theta and high beta activity.

**Just like any of the other brainwave patterns, too much of a dominant rhythm can cause problems. By no means would it be recommended to increase a brainwave that you already have high levels of. In fact, you may experience some negative affects from the theta brainwaves.**

### **Problems associated with too many theta brainwaves:**

**Inability to focus** - Like I mentioned earlier, not everyone will benefit from a theta brainwave increase. The theta brainwave range has been specifically linked to lack of focus and ADD. In most cases, theta brainwaves are associated with mental fogginess, daydreaming activity, and random thinking. If you are already extremely unfocused, increasing your theta brainwaves is not a good idea!

**Too many daydreams** - Like the alpha brainwaves, as you increase theta brainwaves, you may have too many daydreams without any control over it. Higher than average amounts of theta brainwaves is never beneficial and too many daydreams is a prime example of why you may not want to entrain theta.

**Depression** - High amounts of theta brainwaves are found in individuals' brains that have been diagnosed with clinical depression. Usually, individuals that have too many lower brainwaves tend to feel more depressed: increasing the amount of beta brainwaves will help them out! If you are depressed from being overstimulated, theta or alpha brainwaves can help your condition improve, but if you are too understimulated, I suggest staying away from alpha or theta brainwaves and sticking to beta.

**Sleepiness** - The theta brainwave pattern has been linked to dream sleep. The theta brainwave is found in individuals that are sound asleep or extremely tired. Sleepiness and drowsiness occur when theta brainwaves are found in people that are fully awake. When increasing your theta brainwaves, it is extremely common to fall asleep and wake up feeling refreshed. It is very tough to stay aware in the theta state of consciousness unless you are training through meditation.

**Lack of excitement** - Excitement is associated with beta brainwaves and the adrenaline that they produce. It is not uncommon to feel unexcited, or extreme feelings of boredom while in the theta range. If you are currently finding yourself bored with new activities, it is time to work to increase your beta brainwaves and stay away from increasing theta.

**Extreme impulsiveness** - Since a lack of conscious thought is associated with theta brainwaves, it is not uncommon for extremely impulsive people to be high in theta brainwaves. One symptom of ADD is being overly impulsive. It isn't at all a surprise that increasing the total amount of theta brainwaves correlates with higher levels of impulsive behavior.



**Hyperactivity** - Because the brain is functioning at such a slow brainwave pattern, the central nervous system is using up less overall energy. All the energy that you accumulate from food you eat needs to be put to use somehow. Having too much theta brainwave activity allows your brain and CNS to get by with less energy. Since the brain and CNS use less overall energy, the excess energy is expressed in the individual through hyperactive behaviors.

**Overly receptive mind** - In the theta brainwave state, your brain may be overly receptive to suggestions and new information. Being overly receptive isn't always a good thing and can make your subconscious more open to accepting negative suggested beliefs. Many hypnotherapists target the theta brainwave range to help you implant new beliefs into your mind.  
Healthy ways to increase theta brainwaves:

**Brainwave entrainment** - As I mention a lot, brainwave entrainment is great for fine tuning your state of consciousness and awareness. If you want to easily and naturally experience theta brainwaves, I recommend trying any of the programs in my "recommended products" section. Brainwave entrainment is an easy process that involves simply listening to a tone (stimulus) and your brainwaves naturally shift in order to match the frequency associated with the acoustic tone.

**Playing Nintendo** - Playing Nintendo literally shuts down all brainwave activity in the brain's prefrontal cortex, an area which is responsible for producing beta brainwaves to help keep you focused. As an individual plays Nintendo games, his or her brain shifts from focused thinking to the unfocused, visual, theta brainwaves. Those who play Nintendo for longer periods of time on a consistent basis tend to have much more theta activity than those who don't.

**Listening to music** - Virtually all genres of music (besides classical) target the brain's right hemisphere and increase theta brainwave levels. Ever wonder why music makes you feel more emotional or provokes an intense emotional reaction from within? Music brings emotions to the surface because when we listen, our brain naturally increases its theta brainwaves!

**Getting a good night's sleep** - Getting a good night's sleep is important for staying healthy, keeping a healthy, powerful brain. Though theta brainwaves will not increase when you wake up the next day, they are highly prevalent in your brain while you are sleeping. Most dream-sleep is linked to an increase in theta brainwave activity, whereas dreamless sleep is mostly linked to delta brainwave activity.

**Meditation** - The goal of most types of meditation is to lower the brainwaves into the alpha-theta brainwave range. A very safe, healthy way to increase your theta brainwaves is to make meditation a daily habit or start up a meditation routine. If you are already meditating, great — you'll naturally increase flexibility with to travel through the alpha brainwave range to experience the depths of theta.

**Hypnosis / Self-hypnosis** - The goal of all hypnosis and self-hypnosis programs is to target the lower brainwave ranges (i.e. alpha and theta) and implant new beliefs. Doing self-hypnosis on a consistent basis or seeing a hypnotherapist will definitely help you reduce stress by increasing your theta brainwaves.

**Creative Visualization** - Every time that you close your eyes and do creative visualization, the amount of natural theta brainwave increases. Though it is tough to maintain awareness in a brainwave state predominantly comprised of theta waves, it can be done. Creative visualization will give your theta brainwaves a nice, healthy boost while you are engaged in this eyes-closed, extremely-relaxed process. If you are the type of person that often shuts your eyes to visualize, you probably have higher than normal amounts of theta brainwave activity. Visualization can go hand-in-hand with a meditation practice, but if you'd rather only visualize, you'll still be boosting your theta brainwaves.

**Yoga - Like meditation**, yoga is yet another activity that promotes relaxation and wellbeing by shifting your brainwaves to the calming patterns of alpha and theta. There are many different types of yoga, and if practiced right, they'll definitely slow your brainwaves and allow you to experience a much greater sense of awareness and insight within the theta range. Unhealthy ways to increase theta brainwaves:

**Skipping sleep** - Depriving yourself of a good night's sleep or completely skipping sleep will increase the amount of cortisol (a hormone associated with stress and aging) and will flood your brain with a combination of unfocused brainwaves: mostly theta, some delta and in some cases high-beta. If you have ever pulled an "all nighter," you'll know that skipping sleep makes you feel extremely unfocused, dizzy, and confused. This is due to a combination of unbalanced chemicals, hormones, and brainwaves.

**Taking Valium (diazepam)** - Valium is a sedative that is commonly used to treat anxiety, stress, and panic. Taking the drug Valium will increase your brain's lower frequency brainwaves: mostly theta. The theta brainwaves are what makes a person feel tired and deeply relaxed. If you have ever taken Valium, you know what a kick of the theta brainwaves feel like.

**Drinking Alcohol** - Though drinking alcohol primarily increases the total amount of a person's alpha brainwaves, it definitely has an effect on the theta range too. In extreme cases of alcoholism and drunkenness, the theta brainwave pattern can dominate the brain and leave the individual extremely confused and impair all memory functions.

**Hallucinogenics** (i.e. Magic Mushrooms / LSD / Acid) - Hallucinogenic drugs like Magic Mushrooms, LSD, and Acid are definitely not wise to take. They are things that kill your brain cells and can cause a user to have extremely negative reactions that result in huge emotional upheavals and possible psychotic episodes. In my opinion, Magic Mushrooms are the safest of the three mentioned, but they all should be avoided. With that said, if you have ever taken them, you have entered the theta brainwave range with a drugged perspective.

## Final evaluation of theta brainwaves:

I personally think that theta brainwaves can feel awesome and are great to experience. The emotional intensity that is associated with high amounts of theta feels great. With that said, theta can be an intense brainwave to experience. If you find yourself overemotional and depressed, the

theta band is not recommended. You should be the judge as to whether or not increasing theta is best for you. If you are already experiencing many of the listed “benefits,” you probably don’t need much of an theta brainwave booster.

Are you already an overemotional person? If so, chances are good that your brain naturally produces large amounts of theta brainwave activity and you may not need a boost. If you are experiencing too many of the listed negative effects, you may want to consider speeding up your brainwaves into the beta range.

I personally don’t recommend entraining the alpha brainwave or the theta brainwave if you currently know that your brain already produces large amounts of theta. If you are going to do theta brainwave entrainment with Neuro-Programmer 2 Professional, I recommend trying the 7.83 Hz frequency. If you purchase Neuro-Programmer 2 or any of my recommended brainwave products, you can create a customized 7.83 Hz theta brainwave session or look for one that is already built into the library. If you are confused about your brainwave pattern, consider giving Neuro-Programmer 2 Professional some experimentation and seeing how your brain reacts and your reality changes.

#### **If you’d like to experience Theta brainwaves:**

If you have ever given theta brainwaves a shot, I’d really like to hear your experience in the comments section. If you are interested in experiencing some theta brainwaves or have any questions for me, feel free to send me a message through my contact form. I appreciate when you purchase products through me. It helps me pay for blog hosting services and the promotion of this blog. Increasing your theta brainwave pattern is definitely an experience that has potential to boost your brain power and help you connect with your emotions.

# ALPHA

## Alpha brain waves ( 8 to 12Hz)

- 8- 10 Hz Super-learning new information, memorisation, not comprehension.
- 8.22 Hz - Associated with the mouth. Brings creativity
- 10 Hz - Enhanced serotonin release. Mood elevation, arousal, stimulant
- 10 Hz - Provides relief from lost sleep, improves general mood
- 10 Hz - Mood elevator. Used to dramatically reduce headaches
- 10 Hz - Clarity, subconscious correlation. Releases serotonin
- 11 Hz - Relaxed yet awake state
- 12 Hz - Centering, mental stability.
- 11 - 14 Hz - Increased focus and awareness
- 12 - 14 Hz - Learning frequency, good for absorbing information passively

Alpha brain waves are considered relaxed brainwave activity. Alpha brainwaves are brainwaves that cycle within the range of 8 – 12 Hz and are usually generated in the brains right hemisphere or in a synchronized pattern between both right and left hemispheres. Alpha waves kick in when our mind and body are completely relaxed and free of stress.

Alpha is generally thought of as the normal brainwave that is dominant in people who are relaxed, creative, and have a clear mind. Alpha is considered the “normal” brainwave pattern and is dominant when people close their eyes. Children tend to have much higher levels of alpha brainwaves than adults. Alpha brainwaves are considered the healthiest brainwave range and 10

Hz has widely been accepted as the “safest” brainwave frequency to train.

Most children and younger teenagers have a dominant alpha rhythm. There isn't a single brain wave pattern is better than the others – so don't think alpha brainwaves are a “cure all.” If your brain is deficient in the alpha brainwave pattern, increasing them can feel awesome! I can personally testify based on my experience.

**An interesting factoid:** alpha brainwaves were the first brainwave group to be researched and the first group to be discovered. The alpha brain wave rhythm is also considered to be the “safest” of the brain wave frequencies to use during brainwave entrainment and neurofeedback. Why? Because out of all four groups of brain waves [beta, alpha, theta, delta], alpha waves usually yield the most benefits via entrainment and rarely produce any unwanted side-effects.

## Why alpha brain waves are called “alpha brain waves”

Dr. Hans Berger who was a psychiatrist from Austria first discovered electrical waves in the brain in the year 1908. Berger called these electrical waves “alpha brain waves” due to the fact that they were the first brain wave to be discovered. Another interesting fact about Dr. Hans Berger is the fact that he was the inventor of the E.E.G. machine, better known as an electroencephalograph. The E.E.G. machine is what allows researchers, scientists, and neurofeedback practitioners to understand brainwave activity.

It works by amplifying, recording, and creating graphs of electrical activities in the brain. After using the E.E.G., researchers quickly found other forms of brain activity. Beta waves were discovered next, then delta waves, then theta waves. After all the basic brain waves were discovered, gamma brain waves were found.

Eventually, in the 1950's, scientists discovered that it was indeed possible for individuals to learn to take full conscious control over their brainwaves. These scientists learned that meditation allowed people to slow their brain waves from the common beta range down to theta and alpha waves.

## Benefits of increasing alpha brain waves:

**Relaxed body and mind** - The alpha brainwave is associated with a completely relaxed body and mind. The brain's thought process is slowed and the mind is clear. The body is completely relaxed and free of all tension and nervousness. Boosting the alpha brain wave is a great way to enjoy the feeling of relaxation and a great way to let go of all worries and tension.

**Higher levels of creativity** - The alpha brainwave rhythm is generally associated with above average levels of creativity. Alpha brainwave levels are found to be much higher in artists, musicians, and creative thinkers. Creative problem solvers are what many employers currently need to think of new, creative, innovative ideas for their companies. If you'd like to boost your creativity, consider giving alpha brainwaves a boost. Scientists have shown that highly-creative individuals tend to have different brainwaves than normal and less creative people. In order to be creative, your brain must be able to produce bursts of alpha brainwaves: mostly in the left-hemisphere. Why? Producing them on the left hemisphere shuts down the left-brain and allows the more creative, right-hemisphere to expose new ideas!

**Improved ability to problem-solve** - The problem associated with having too much of the beta brainwave pattern is the inability to problem solve and get past "mental blocks" by thinking creatively. Ever get writer's block? Increasing your alpha brainwaves will most likely help you keep "flowing" right through your paper or article without getting "stuck."

**Balanced mood (emotional stability)** - The alpha brainwave, especially the 10 Hz frequency, is associated with a balanced mood and stable emotions. Many overanxious and hyperactive, unstable people could greatly improve their brains by increasing their alpha brainwaves. Feeling emotionally stable means not overreacting to stressful situations and being able to maintain a calm state of mind. The alpha brainwave state is associated with a very stable state of mind.

**Peak-performance** - The 10 Hz alpha brainwave frequency is commonly referred to as a "peak performance" state of mind or being "in the zone." There has been conclusive evidence from studies with professional basketball players and golfers that show alpha brainwaves increasing in their "left hemispheres" just before making a free-throw or shooting a great golf shot. In players that did not make the shot, beta brainwaves flooded their left-hemisphere. It seems that "over thinking" (beta brainwaves) or "under thinking" (theta brainwaves) are detrimental to gameplay. The study was also proved by comparing elite marksmen to novice marksmen. The elite marksmen showed a big burst of alpha in their left-brain hemisphere before their perfect shots. Professional athletes are much more likely to show the alpha rhythm, while novices and intermediate players show virtually none! It seems that the 10 Hz alpha brainwave is the best brainwave for athletes and marksmen looking to improve their performance and overall game.

**Lowered levels of stress & anxiety** - Lowered levels of stress and anxiety is a huge benefit that the alpha brainwave can bring to your life. Know anyone suffering from chronic stress or rapid, anxious thoughts? Suggest brainwave entrainment to them and have them read over this article to see whether or not they'd like to try to increase their alpha brainwaves.

**Flow state of consciousness** - A state of "flow," refers to a mental state that all events and things seem to pass without problems. You are able to deal with life's problems easily and aren't overanxious or too relaxed. You are somewhere in between overstimulation and understimulation.

In essence, your mind is “balanced” and in an optimal state of functioning.

**“Super learning” ability** - The alpha brainwave spectrum has been associated with “super learning” and being able to remember and retain information with less overall effort. The alpha brainwave state mostly improves one’s natural ability to passively absorb large amounts of information. Basically, you don’t need to make as much of an effort to learn a new ability, language, or skill.

**Boosted immune system** - Enhancing your alpha brainwaves can lead to self-healing and prevention of illness. This is due to the fact that alpha waves are usually associated with “lack of stress” and “relaxation.” Stress and too much anxiety can do harm to the immune system by releasing harmful chemicals such as epinephrine (adrenaline) and too much of the hormone: cortisol, associated with the adrenaline release.

Positive thinking - There has been some research that has found the alpha brainwave rhythm, especially the 10 Hz frequency, to be associated with a positive state of mind (i.e. positive thoughts), a positive mood, and an overall feeling of wellness. In my experience with alpha brainwaves, the positive thoughts and mood definitely were due to my enhanced level of relaxation.

**Increased levels of “serotonin”** - Alpha brainwaves are associated with the neurotransmitter serotonin being released. Low levels of serotonin have been one factor that some researchers have linked to depression.

Deep self-introspection - Alpha brainwaves are associated with an increased awareness of your self: body and mind. Whereas beta brainwaves cause the mind to focus more on external events, the alpha brainwaves enhance the overall awareness of one’s self.

## **Alpha brainwaves bridge the conscious mind with the subconscious**

Alpha brain waves allow you to understand what is going on in your subconscious mind after meditation and after dreaming. Without the presence of alpha waves in your E.E.G. after dreaming, your brain would not be able to transfer subconscious information to the conscious mind. Alpha waves are the connection that allows information to be transferred between subconscious and conscious. Each time you remember a dream that you had, you used alpha brain waves.

Each time that you visualize or go into meditation, your alpha brain waves likely kicked in. Alpha waves are a key part of providing clear, vivid visualization sessions. They allow you to use your imagination, tap your subconscious creativity, and express the creativity through your conscious mind. The alpha waves are usually also at work each time you daydream or use your imagination.

## Know when you access “Alpha brainwaves”

Each time that you are daydreaming or not fully awake, you are in the alpha brain wave range. The state of mind ‘right-before’ you fall asleep is usually comprised of lots of alpha brain waves. Individuals who lack normal amounts of alpha brain waves usually have insomnia, anxiety, sleep disorders, or high stress. This is why increasing alpha waves for overstressed people can be extremely effective at helping them fall asleep.

I can personally vouch for the use of alpha brain waves to fall asleep. In fact, I used them last night to put me out! I played a 10 Hz alpha brain wave created session and within 10 minutes, I was asleep - I didn't even know about it. They can be a great tool when utilized effectively! Other times that your brain uses alpha brain waves includes: each time you watch T.V., each time you are relaxing, each meditation session, each time you close your eyes, each time you breathe deeply, or feel completely relaxed during a hot / steamy shower.

For information on how you can increase the production of alpha brain waves in your brain, check out the article [20 Ways To Murder Stress](#). About 5 of the activities mentioned in that article will do a great job at increasing alpha production. Any time you feel relaxation, your alpha waves are at work! Each time that you feel both mentally and physically relaxed, you are in a state of alpha brain waves.

The first time that I heard about alpha brain waves, I thought that they sounded like a good brain wave range, but I also thought that they would make me drowsy and wanting to sleep, so I stayed away from using them and stuck with beta. When I finally decided to use alpha brain waves, it was an incredible experience.

I found a new state-of-mind that allowed me to remain peaceful, calm, and relaxed - all while maintaining a positive mental state. It really felt great to finally experience alpha waves. Now, I use alpha brain waves a lot more because I know what they can do for me. I use them to help me fall asleep quickly or for some powerful relaxation sessions. Each time when I've been stressed out and used alpha brain waves, my relaxation level skyrocketed after about 15 minutes of use. I really didn't think they could work as effectively as they actually did!

## Who has high amounts of alpha brainwaves?

**Extroverts** - Compared to introverts, extroverts have much more alpha brainwave activity. Researchers in the Faculty of Science at the University of Technology Sydney have discovered that the type of brainwaves in the prefrontal cortex has correlated to introversion and extroversion.



According to the results from their study: "If you have high amounts of alpha brainwaves, you are at least three times as likely to be an extrovert."

**Meditators** - The goal of many meditation practices is to increase the amount of slower, alpha and theta brainwave patterns. Naturally your brain will enter a state of alpha awareness and calmness. Experienced meditators can recognize and control this state of awareness. Like any practice, the more you do it, the easier it becomes to enter alpha through meditation.

**Children** - Children tend to have much higher amounts of alpha and theta brainwaves than the average population. As we age, our beta brainwave pattern tends to increase and dominate the other patterns. That is why many adults would definitely benefit from an alpha brainwave increase more than a younger person.

**Just like any of the other brainwave patterns, too much of a dominant rhythm can cause problems. By no means would it be recommended to increase a brainwave that you already have high levels of. In fact, you may experience some negative affects from the alpha brainwaves.**

### **Problems associated with too many alpha brainwaves:**

**Lack of focus** - Like I mentioned earlier, not everyone will benefit from an alpha brainwave increase. Though the alpha brainwave isn't usually linked to lack of focus and ADD, in some cases it can create a foggy state of mind. If you are already very unfocused, increasing the alpha brainwave pattern is usually not recommended.

**Too many daydreams** - As you increase your alpha brainwaves, you may have too many daydreams without much control. Some daydreams are fine, but higher than average amounts of alpha brainwaves wouldn't be of much benefit if you are already daydreamy.

**Depression** - High amounts of alpha brainwaves in conjunction with relatively little beta brainwave activity has been linked to depression. Though peak-performers are able to generate a big burst of alpha in their left hemisphere right before their best shots, too much alpha activity in the left-hemisphere of the brain has been linked to depression. If you are depressed from being overstimulated, alpha will probably help you out, if you are too understimulated, I suggest staying

away from alpha and sticking to beta waves.

**Tiredness** - The alpha brainwave pattern has been linked to tiredness and drowsiness in some individuals. If you are working to increase your alpha and you notice yourself becoming tired or drowsy, it may be temporary and your brain is most likely readjusting to fit the new pattern. With that said, alpha brainwaves are the brainwaves that are naturally produced right after you close your eyes to fall asleep.

**Lack of excitement** - Though it is usually rare, some people may run into the problem of not feeling excitement for awhile. After my personal experience with alpha brainwaves, I felt super relaxed and unexcited for a couple weeks. It definitely helped calm my mind, but I did miss the feeling of excitement.

**Lack of visual acuity** - Alpha brainwaves are associated with a lack of visual acuity and visual awareness. Beta brainwaves are associated with heightened visual awareness and acuity. When slowing your brainwaves down to the alpha range, the visual area of the brain is also much less clear.

**Overly receptive** - In the alpha brainwave state, your brain may be overly receptive to suggestions and new information. Being overly receptive isn't always a good thing and can make your subconscious more open to accepting negative suggested beliefs.

## Healthy ways to increase alpha brainwaves:

**Brainwave entrainment** - As I mention a lot, brainwave entrainment is great for fine tuning your state of consciousness and awareness. If you want to increase your alpha brainwaves, I recommend trying any of the programs in my "recommended products" section. Brainwave entrainment is an easy process that involves simply listening to a tone (stimulus) and your brainwaves naturally match the frequency associated with the tone.

**Meditation** - The goal of most types of meditation is to lower the brainwaves into the alpha-theta brainwave range. A very safe, healthy way to increase your alpha brainwaves is to make meditation a daily habit or start up a meditation routine. If you are already meditating, great! You'll naturally increase flexibility with your alpha brainwaves as you continue the process.

**Self-hypnosis** - The goal of self-hypnosis is to target the lower brainwave ranges (i.e. alpha and theta). Doing self-hypnosis on a consistent basis will definitely help you reduce stress by increasing the natural amount of your alpha brainwaves.

**Visualization** - Every time that you close your eyes and visualize, alpha activity significantly increases. If you are the type of person that often enjoys shutting your eyes to imaging or picture things, you'll have a naturally higher amount of alpha brainwave activity than others. Visualization

can go hand-in-hand with a meditation practice, but if you'd rather only visualize, you'll still be boosting your alpha brainwaves!

**Yoga** - Like meditation, yoga is yet another activity that promotes relaxation and wellbeing by shifting your brainwaves to the calming patterns of alpha and theta. There are many different types of yoga, and if practiced right, they'll definitely allow you to tap into your alpha awareness.

**Deep-breathing** - Deep breathing is not only great for improving overall oxygen levels in the brain and body, it is great for achieving a state of relaxation. When you make deep-breathing a habit, you will begin to feel more relaxed and your brainwaves will shift from the somewhat stressful beta brainwaves to the alpha rhythm.

**Saunas / Hot Tubs** - Not only do saunas and hot tubs cause your entire body to feel completely relaxed, they cause your mind to quiet and drowsiness to kick in. The brainwave associated with those feelings of relaxation like you've been sitting in a hot tub or in a steamy sauna are the alpha waves. Same would apply for laying in the sun tanning on a nice warm beach — feeling the hot sun soak into your body is deeply relaxing. That feeling of deep relaxation is due to an increased amount of alpha brainwaves.

**Watching T.V.** - After just 30 seconds of watching T.V., your brain's alpha brainwaves kick in. Even if you happen to be reading captions or text on the T.V. screen, the alpha waves still kick in! Normally, beta brainwaves kick in while reading, but not while reading on T.V. All radiant light from cathode-ray technology in T.V.'s and other appliances automatically cause the brain to idle and shift to the alpha rhythm. I personally don't consider watching T.V. to be the best way to increase your alpha brainwaves, but I'm not going to put it in the unhealthy category.

## Unhealthy ways to increase alpha brainwaves:

**Drinking alcohol** - In moderation, alcohol probably won't kill your precious brain cells, but it isn't a healthy activity for your body or your brain. Alcohol is a huge alpha brainwave booster. Are you a person that is constantly getting drunk to relax? Alpha brainwaves are the reason that tense and stressed people turn to alcohol. When you are drunk, your brain produces lots of alpha brainwaves and lowers your inhibitions.

**Smoking marijuana** - Though there is controversy as to whether or not smoking marijuana is good or bad, I personally don't consider marijuana or any other illegal substance to be healthy. Smoking marijuana does increase alpha brainwaves, which is why smoking marijuana makes people feel relaxed. Marijuana will not give you the aware, synchronized, peak-performance alpha brainwave that most people are striving for.

## **My description of “alpha brain waves”**

Think about your entire body and mind being fully relaxed and peaceful. You may feel slightly spaced out, but it actually feels very pleasant. If you’ve every got a very relaxing massage or sat in a hot-tub to the point of relaxation, this is what the alpha brain waves feel like. All of this will usually be followed by inner-calmness, silence, and quietude - as if your entire world was silent and completely still.

It’s still very difficult for you to fully understand alpha brain waves if you haven’t experienced them. In fact, some people NEVER experience the alpha range for most of their lives! Though my description definitely will help you understand alpha brain waves better, it is still recommended to experience them for yourself. Why? Because describing alpha brain waves is comparable to telling you what chocolate tastes like.

I can describe the chocolate by using many different adjectives and descriptors, but in the end, you really must try the chocolate in order to fully understand it and appreciate it. Same rules apply for the alpha brain wave state of consciousness. When you are finally able to fully understand the alpha brain wave range, you will feel liberated and open to an entirely new world!

It really is an amazing experience, but one that you need to experience for yourself. If you are interested in experiencing powerful alpha brain waves, I recommend either Neuro-Programmer 2 Professional or Mind Work Station. These products will get you started and definitely will help you get into the alpha range. I personally use Neuro-Programmer 2 Professional sessions usually at around 10 Hz and they’ve been absolutely phenomenal.

## **If you’d like to experience Alpha brainwaves:**

If you have ever given alpha brainwaves a shot, I’d really like to hear your experience in the comments section. If you are interested in experiencing some alpha brainwaves or have any questions for me, feel free to send me a message through my contact form. I appreciate when you buy products through my referral ads to help me pay for blog hosting services and the promotion of this blog! Increasing your alpha brainwave pattern is definitely an experience that has potential to boost your brain power.

## **Final evaluation of alpha brainwaves:**

I personally think that alpha brainwaves feel awesome to increase and the 10 Hz brainwave is the safest brainwave to entrain. However, you should be the judge as to whether or not increasing them is best for you. If you are already experiencing many of the listed “benefits,” you probably don’t need much of an alpha booster.

Are you already a relaxed, laid back person that feels emotionally stable? If so, chances are good that your brain naturally produces large amounts of alpha brainwave activity and you may be perfect in the alpha range. If you are experiencing too many of the listed negative effects, you may want to consider speeding up your brainwaves into the beta range.

If you are over anxious, tend to worry a lot, and aren’t emotionally balanced, chances are good that you’d benefit from the alpha increase. If you are going to do alpha brainwave entrainment with Neuro-Programmer 2 Professional, I highly recommend trying the 10 Hz frequency. If you purchase Neuro-Programmer 2 or any of my recommended brainwave products, you can create a customized 10 Hz alpha brainwave session - it isn’t built into the session library. If you are confused about your brainwave pattern, consider giving Neuro-Programmer 2 Professional some experimentation and seeing how your brain reacts and reality changes.

# BETA

## **Beta brain waves ( 13 to 30Hz)**

- 14 Hz - Awakeness, alert. Concentration on tasks, Focusing, vitality.
- 16 Hz - Bottom of hearing range. Releases oxygen/calcium into cells
- 12 - 15 Hz - Relaxed focus, improved attentive abilities
- 13 - 27 Hz - Promotes focused attention toward external stimuli
- 13 - 30 Hz - Problem solving, conscious thinking
- 18-24 Hz — Euphoria, can result in headaches, anxiety

Beta brainwaves are considered “fast brain wave” activity. Beta brainwaves are brainwaves that cycle within the range of 12 – 38 Hz and are usually generated in the brain’s left-hemisphere.

Beta waves kick in when logically thinking, feeling stressed, and feeling tense. Beta is generally thought of as a “normal” rhythm and is dominant in people who are alert, anxious, or have their eyes open. Beta brainwaves are considered to be the normal brainwave pattern in healthy adults.

Most children and teenagers have dominant theta and alpha brainwave patterns. There isn’t a single brain wave pattern is better than the others – so don’t think beta brainwaves are some sort of miracle that your children need! If you happen to be deficient in the beta brain wave range, increasing them may feel like a miracle!

## **Benefits of increasing beta brainwave activity include:**

**Ability to think quickly** – When a person is high in beta brainwaves, they are able to think fast, generate new ideas quickly, and live in a high-state of functioning. Quick thinking and mental processing definitely helps when applying for a job in the 21st century and preparing for exams. Studies have shown that people who think quickly feel more confident, happier, and actually live longer than slower thinkers.

**Being more social** – When a person talks, their beta brainwave range naturally increases. If you are interested in becoming more social, an increase in beta brainwaves may be the ticket. In most people, an increase in beta activity boosts conversational energy and ability to keep conversation going. I’ve had personal experiences in the high beta brainwave range and you are more social period.

**Feeling excited** – Ever get that nice healthy adrenaline rush or feeling of excitement in the pit of your stomach? That feeling is caused by an increase in the amount of beta brainwaves. Beta waves kick in when people get excited and definitely feel invigorating.

**Goal oriented** – When people are in the beta brainwave state, they naturally feel more goal-oriented. It could be due to the fact that they have more energy, are more social, and have high levels of focus that cause them to naturally be more goal-oriented. It could also be the fact that an increase in left-hemisphere brain functioning is associated with goals and goal setting. Either way, it definitely will get you more pumped up and inspired to achieve your goals.

**Peak-performance** – Though a specific peak-performance brainwave pattern is heavily debated, beta brainwaves can certainly aid in performance ability. When a person's focus skyrockets, and their energy levels skyrocket, their performance abilities will naturally increase.

**Highest levels of focus** – Have some mental fog and a low level of focus? Beta brainwaves may be the ticket to changing that around! People with ADD and ADHD are commonly prescribed stimulants, which cause beta brainwave activity in their brains to increase. Hence, an increased ability to focus, get things done, and all the other things associated with beta waves.

**More energy** – Do you lack energy? Are you always tired and wish you had more energy? Well, beta brainwaves could definitely help you out! People low in beta brainwaves feel tired and report less overall energy throughout the day. To get out of a sleepy state and lift some mental fog, consider increasing your beta waves!

**Positive thoughts** – I've definitely noticed that I feel less depressed and constantly am able to generate positive thoughts while in a high-beta mental state. Positive thinking and an increase in beta waves makes perfect sense because the left-hemisphere is associated with positive thoughts.

**Write easily and quickly** – When beta brainwave levels are high, one's ability to write increases. Beta activity occurs in the left hemisphere which is highly activated while writing. I can personally testify for this one: my ability to write is definitely enhanced when I am able to get into a state of beta.

**Increase in I.Q.** – Studies have been done and show that people higher in the beta brainwave range actually have higher I.Q.'s than the average population. It makes perfect sense, since activities like reading and solving math problems can definitely help build a smart brain.

**As goes for anything, too much beta activity can be a bad thing. By no means would it be a good idea for you to increase a brainwave that you already have high levels of. In fact, you may experience the horror of beta brainwaves, as they can cause:**

**Anxiety** – I can personally vouch for this one. Too much beta activity caused me to feel afraid or have thoughts of fear towards things that I'm normally completely calm with. I would imagine that if your brainwaves get high enough in the beta range, you will begin to notice a fear of things that are not normal to freak out over.

**Stress** – Though there are many good things that come with beta waves, there is also a huge possibility that they may stress you out. They are linked to increased stress, which is why it is important to learn how to shift your brainwaves when needed.

**Paranoia** – Paranoid schizophrenics are actually able to generate much more high-beta activity than the average population. Are beta brainwaves the cause of schizophrenia? No, they are a side-effect and schizophrenia is a much more complex disease. Increasing beta brainwaves will not increase the likelihood of you becoming crazy, but they could make you feel more paranoid than usual. Always checking the locks and worried that someone will break in? It may be time to boost that alpha brainwave pattern and tone down the beta!

**Muscle tension** – Another drawback to the beta brainwaves is that your body will feel uneasy and muscle tension increases. Nobody enjoys feeling tensed and unable to relax their muscles. Avoid high amounts of beta activity to avoid tense muscles.

**Increased blood pressure** – High blood pressure is usually not anything to be proud of. Beta brainwaves cause an increase in stress and thoughts and naturally increase your blood pressure. If your blood pressure is already high, chances are good that you know what a beta brainwave state feels like.

**Unwanted thoughts** – Beta brainwaves can be a source of unwanted or anxious thoughts. Too much beta activity can cause one to experience a mild form of obsessive compulsive disorder. Rapid, random thoughts that are beyond control have potential to haunt the person that is high in beta.

**Insomnia** – Want to stay up all night? If so, I recommend increasing your beta activity. It is probably a bad idea to do any beta geared activity right before falling asleep. Keep your brain healthy, get that sleep, and work to prevent insomnia.

**Addiction** – Are you addicted to the internet? Chances are that if you have an addiction, you would greatly benefit from a downscaling in your current amount of beta brainwaves! Addiction is a long, bad cycle to go down that I don't recommend. Look at "how to boost your alpha brain wave" to help you curb and hopefully eliminate your addictions.



## Healthy Ways To Increase Beta Brain Waves:

**Brainwave entrainment** – Check out my recommended products section and try out Neuro-Programmer 2 if you haven't already. Brainwave entrainment is definitely a revolutionary technique to help you naturally increase brainwave activity within a certain range. Prepare to be impressed with this technology, if you aren't already.

**Neurofeedback** – Neurofeedback is quite expensive, but is actually very effective at increasing beta brainwave activity for people who have ADD and ADHD. There is a very high success rate for helping ADD in neurofeedback! Consider checking it out.

**Brain training games** – Brain training games increase thinking speed and naturally increase amounts of beta activity. Not all brain training games are boring: check out the games Big Brain Academy for the Nintendo Wii or DS and Brain Age 2 for the Nintendo DS and prepare to have some fun. I've also heard good things about the Luminosity.Com brain program, so consider checking that out.

**Doing homework** – Much of the schoolwork geared towards students in the 21st century is actually beta-gear. Doing math problems and reading short stories is a powerful, natural way to increase your beta activity.

**Reading a book** – Reading is a left-hemisphere oriented activity that everyone should do. Not only may you actually learn something, you will get smarter and increase your beta waves.

**Solving math problems** – If you aren't a student, print out some math problems or buy a book of math facts to get up to par.

**Drink a cup of coffee** – The caffeine in coffee definitely gives a jolt of energy to the brain and body. Why? Taking in caffeine increases the amount of beta brainwaves for awhile. The caffeine effect is different for everyone, but you'll learn that caffeine is definitely a beta brainwave booster.

## Unhealthy Ways To Increase Beta Brain Waves:

**Snort cocaine** – Drugs are just plain unhealthy, addicting, and life threatening. Cocaine does increase beta activity in the brain – causing adrenaline rushes, rapid heartbeat, and positive thinking. Stay away from this stuff and increase your beta waves naturally.

**Take diet pills** – Ahh, good old fashioned diet pills. Pop a few down the hatch and you don't have to work out or eat healthy to lose weight...right... Diet pills are not good for you. You should know better if you are currently taking them!

**Take some amphetamines (Adderall)** – If you need to take stimulants for ADD, then do what you've gotta do. If you don't have a prescription for Adderall, then it is illegal to take and could potentially be very addicting. Just stay away from amphetamines if you don't need them. Their long-term health effects are brutal!

**Drink a Redbull (or another energy drink)** – Energy drinks are just plain unhealthy in my opinion. Yes, they do give you a shocking amount of energy temporarily! After the energy comes, a crash occurs and your energy is completely zapped for the rest of the day! I recommend avoiding these to increase your beta activity.

**Smoke a cigarette** – The nicotine found in cigarettes is a beta brainwave booster. Want lung-cancer, a tarred up throat, and to lose money in the process? Nobody does! Stay away from cigarettes!

### **Final Evaluation of beta brainwaves:**

I personally think that beta brainwaves are great, but you need to be the judge as to whether or not increasing them is right for you. Are you already a positive thinker with higher than normal amounts of energy? If so, chances are good that your brain naturally produces large amounts of beta activity and you may even benefit from slowing down your pattern to the alpha range. If you are tired a lot, feeling unmotivated and bored, chances are good that you are a type of person that would benefit from the increase. I recommend giving Neuro-Programmer 2 Professional a shot and doing a little bit of experimentation to find out what's right for your brain!

# GAMMA

Gamma brainwaves are considered the brain's optimal frequency of functioning. Gamma brainwaves are commonly associated with increased levels of compassion, feelings of happiness, and optimal brain functioning. Gamma brainwaves are associated with a conscious awareness of reality and increased mental abilities. A Gamma wave is a pattern of brain waves, associated with perception and consciousness. Gamma waves are produced when masses of neurons emit electrical signals at the rate of 38 Hz - 70 Hz and have a tiny (virtually unnoticeable) amplitude. Gamma brainwaves can be found in virtually every part of the brain. They serve as a binding mechanism between all parts of the brain and help to improve memory and perception. By one definition, gamma waves are manifest at 24 Hz and higher, though researchers have recognized that higher level cognitive activities occur when lower frequency gamma waves suddenly double into the 40 Hz range. Research has shown gamma waves are continuously present during low voltage fast neocortical activity (LVFA), which occurs during the process of awakening and during active rapid eye movement (REM) sleep. Some researchers do not distinguish gamma waves as a distinct class but include them in beta brain waves.

New evidence has emerged of brainwave states above the highest recognized brainwave frequencies of Beta (30 Hz). Higher-than Beta frequencies are called Gamma. These Gamma brainwaves resonate around 40 Hz and are associated with the brain function which holographically synthesizes all the bits of individual data from various areas of the brain and fuses them all together in a higher perspective.

Gamma is a 'newer' brainwave only because it is difficult to get instrumentation to accurately measure it. It is thought the Gamma is the harmonizing frequency - for example when you are observing an object, its colour, size, texture etc are all perceived and processed by different parts of the brain, it is thought that Gamma allows for unification of all the different information.

This brainwave activity is associated with states of self awareness, higher levels of insight and information, psychic abilities and out of body experiences. This new region of brain activity and states of consciousness associated with it is called EPSILON.

Theta and gamma rhythms also interact helping the brain to package information into coherent images, thought and memories.

EEG researchers are noticing extremely high brainwave frequencies above Gamma, at up to 100 Hz. Totally opposite speed brainwave frequencies - some at 100 Hz and others at less than 0.5 Hz - have exactly the same states of consciousness associated with them. These high-range brain frequency states are named HyperGamma. Later information showed new evidence of frequencies even higher than this, at almost 200 Hz. named: Lambda brainwave frequencies and states of consciousness.

These HyperGamma, Lambda and Epsilon frequencies, are linked together in a circular relationship -where if you looked with a magnifying glass at an extremely slow Epsilon brain frequency, you would see hidden within it a modulation frequency of 100 - 200 Hz. If you stand back far enough from an extremely fast 200 Hz brainwave frequency, you would see that is it riding on the crest of a slow motion modulating wave of Epsilon.

This Epsilon state of consciousness (the state Yogi's go into when they achieve "suspended animation") is where western medical doctors can perceive no heart beat, respiration or pulse. HyperGamma and Lambda states of consciousness are the states associated with the ability of certain sects of Tibetan monks who can mediate in the Himalayan mountains in sub-zero temperatures with scanty clothing and melt the snow all around them.

Fast, gamma rhythms range from 30 to 100 Hz, and may vary in frequency during a response. The 20-100 Hz range we consider here overlaps the beta band (15 to 30 Hz), but we will ignore the finer points of EEG classification here. The natural history and functional roles of synchronous gamma oscillations have been reviewed recently.

Gamma rhythms occur in humans and other mammals following sensory stimuli. They often occur in brief runs in these responses. "Induced rhythms" at 50-60 Hz were first described in olfactory bulb by Adrian. They have since been found in: olfactory, visual, auditory, somatosensory, and motor cortex. Gamma oscillations also occur in the hippocampus, where the link with external sensory stimuli is less direct, but may still exist in the multimodal inputs it receives from higher order sensory cortices. Hippocampal gamma tends to occur during the theta (4-12 Hz) EEG that is a prominent feature of the hippocampus in vivo, especially during exploration.

In Man the auditory response includes brief "40 Hz transient responses" which increase when the subject pays attention and which disappear with loss of consciousness during anaesthesia. Repetitive auditory stimulation at ~40 Hz generates a large "40 Hz steady state response". MEG recordings in Man suggest that gamma rhythms can be very widespread, both during waking and dream states. Other MEG measurements in Man suggest that gamma rhythms may be organised to sweep across the whole brain, perhaps providing "temporal binding .... into a single cognitive experience".

## Cognitive Development

New studies conducted by April Benasich, professor of neuroscience at Rutgers University in Newark, and her colleagues reveal that gamma wave activity in the brains of children provide a window into their cognitive development, and could open the way for more effective intervention for those likely to experience language problems.

“Research into the adult brain has shown that gamma activity is the ‘glue’ that binds together perceptions, thoughts and memories,” notes Benasich. “Little research, however, has been conducted into the development of gamma activity in the infant brain and its possible connection to cognitive and language skills.”

Benasich and her research team are the first to look at “resting” gamma power in the frontal cortex, the “thinking” part of the brain, in children 16, 24 and 36 months old. In an article published online and in an upcoming issue of Behavioral Brain Research, Benasich offers significant new insight into the likely role gamma activity plays in supporting emerging cognitive and language abilities during the first 36 months of life.

Gamma waves are fast, high-frequency, rhythmic brain responses that have been shown to spike when higher cognitive processes are engaged. Research in adults and animals suggests that lower levels of gamma power might hinder the brain’s ability to efficiently package information into coherent images, thoughts and memories. However, until now little has been known about the developmental course of gamma power in children.

Analyzing the children’s EEGs (electroencephalograms), Benasich and her research team found that those with higher language and cognitive abilities had correspondingly higher gamma power than those with poorer language and cognitive scores. Similarly, children with better attention and inhibitory control, the ability to moderate or refrain from behavior when instructed, also had higher gamma power. There were no differences in gamma power based on gender or socio-economic status.

The measurements were obtained by placing a soft bonnet with 62 sensors on the heads of the children as they sat on a parent’s lap and quietly played. In separate tests, children were evaluated for their emerging language and cognitive skills. The researchers looked both at children from families with normal language development and those at higher risk for problems because they were born into families with a history of language disorders. As suspected, the group of children with a family history of language impairments showed lower levels of gamma activity.

“We believe that maturation of the brain mechanisms that support gamma activity and those critical for mounting normal language and cognitive development may be occurring simultaneously,” says Benasich. “We seem to have identified a window, during a period of sustained and dramatic linguistic and cognitive growth, that can help us to better determine where a child is developmentally.”

Such an understanding could provide for earlier and more effective intervention. For example, if a child is found to have lower than average resting gamma, intervention and learning methods could be instituted as a preventative measure. Such early intervention possibly also could result in increasing gamma power in the frontal cortex.

In her other related research, Benasich has discovered that how well infants distinguish differences in successive rapidly occurring tone sequences is a good predictor of future language problems and that it can be determined as early as three months whether a baby will struggle with language development. These latest findings appear to show that the emergence of strong gamma activity is critical for linguistic and cognitive development and that children at risk for language impairments may lag in this process.

“Having strong bursts of gamma appears to assist the brain in making the neural connections needed for effective language development,” says Benasich. “By measuring gamma activity in the frontal cortex, which is the last brain area to mature and is used to make decisions and solve problems, we may be able to tell how well the brain is developing in general.”

Being able to determine a child’s level of development could allow for more effective treatment at a critical point in time when the brain is laying the foundations for cognition and language and establishing efficient connections for future learning. From 16 to 36 months, there is a dramatic explosion of linguistic and cognitive growth; children rush headlong into language, rapidly developing their skills, increasing from a vocabulary of 100 words to 1,000 words, learning that words stand for objects, and that words not only are associated with a specific object but categories, such as “dog” representing not just a single animal but all dogs.

“During this intense learning period, they are little scientists in their environment putting things together and figuring things out,” says Benasich. “Lower levels of gamma power in the resting brain may provide a ‘red flag’ indicating that a child will experience language or attentional problems. Knowing that may allow us to provide effective intervention during this critical learning period.”

For more information on Dr. Benasich’s research, please visit <http://babylab.rutgers.edu/>, or contact her at [benasich@andromeda.rutgers.edu](mailto:benasich@andromeda.rutgers.edu).

## Manifestation

You may have come across various experts and exponents of The Law of Attraction discussing the links between the Gamma brainwave and manifestation. Or, more accurately, the link between the Gamma brainwave and successful manifestation.

So, what are Gamma brainwaves and what is its connection to manifestation and The Law of Attraction?

Gamma brainwaves are the fastest of all the brainwave frequencies (certainly of those that have been successfully and comprehensively studied). Gamma brainwaves typically ranges from anywhere between 28 and more than 80 cps (cycle per second), with each of these cycles comprising an ‘on’ state (a peak) and an ‘off’ state (a trough).

Gamma brainwaves are generally only found to be active in the minds of people undergoing extreme mental stress or other mental activity. It is also prevalent in those who have achieved an unusually deep meditative state. A recent study of Buddhist monks in Tibet recorded Gamma brainwave activity in the region of 40 cycles per second, coinciding with their meditative activities, particularly when they had reached a higher state of clarity and insightfulness.

Given that manifestation calls for clarity of mind and focus, it need hardly be said that the ability to achieve these higher Gamma brainwave states would undoubtedly be of considerable benefit. In fact, there are those who believe that successful manifestation (as defined by The Law of Attraction) is virtually impossible for those who aren’t capable of achieving these higher states.

This explains the recent explosion of interest amongst Law of Attraction devotees in binaural beats, monaural beats, isochronic tones and other brain entrainment systems to stimulate the brain into adopting a particular frequency.

The link between the gamma brainwave and manifestation is likely to become more pronounced as time goes by.

## Linked to higher reasoning faculties

Gamma waves are involved in higher mental activity. Transient periods of synchronized firing over the gamma waveband, of entire banks of neurons from different parts of the brain, have been proposed as a mechanism for bringing a distributed matrix of cognitive processes together to generate a coherent, concerted cognitive act, such as perception. For example, it has been suggested that gamma waves are associated with solving the binding problem. Recent studies have shown that recognition of new insights occur when patterns jump from 20 to 40 Hz.

## Consciousness

Gamma waves have been studied in how visual cues elicit a neural synchronic reaction with both conscious and subliminal stimuli. This research also sheds light on how neural synchrony may explain stochastic resonance in the nervous system.

## Benefits of increasing gamma brainwaves:

**Boosted memory** - High amounts of gamma brainwaves have been associated with a boosted memory and ability to recall past events. The 40 Hz gamma frequency has been associated with

a well-regulated memory. If you are currently struggling with maintaining a great, healthy memory, consider increasing your 40 Hz gamma brainwave.

**Enhanced perception of reality** - Gamma brainwaves can provide you with an enhanced overall perception of reality and understanding of consciousness. Because gamma brainwaves can be found in virtually every part of the brain, it allows parts of the brain to communicate. Through their communication, your reality and perception is formed.

**Binding of senses** - The gamma brainwave is what allows us to experience: smell, touch, vision, taste, and hearing altogether. It allows our brain to process multiple sensations at the same time and allows us to identify environmental forms of stimulation. It also improves our overall perception of our senses by enhancing our levels of focus.

**Increased compassion** - Advanced meditation practices and yogic traditions have associated the gamma brainwave frequency range with a pure state of compassion. Richard Davidson hooked long-time meditators up to an E.E.G. at the University of Wisconsin Madison and found that the more meditation experience a person had, a higher amount of gamma brainwave was displayed. Since most people aren't able to cultivate a pure state of compassion like many monks, they may not ever understand or feel the wonderment of the gamma brainwave range.

**High-level information processing** - Gamma brainwaves are associated with high-level information processing in the brain. Basically, the brain is able to operate more efficiently at a higher level. Thoughts are easily processed and the brain is able to easily absorb and understand new information and changes in one's environment.

**Natural antidepressant** - The gamma brainwave is a known natural antidepressant. Not only does it increase our level of compassion for others, it boosts our overall levels of happiness. Many people claim that listening to the gamma brainwave while meditating has proved to be extremely effective at completely eliminating their depression. The gamma brainwave decreases during stress, anxiety, and cases of depression. No wonder that increasing your gamma brainwaves will make you feel much less depressed. In people with depression, the amount of gamma brainwave tends to be much lower than average.

**Advanced learning ability** - Since gamma has been associated with a higher level of information processing, quicker thinking, and an enhanced perception of reality, people with high amounts of gamma brainwaves tend to have an advanced learning ability. People with learning disabilities, ADD, and those under a lot of stress, tend to have a significantly smaller amount of the gamma brainwave than others.

**Intelligence (I.Q.) Increase** - The gamma brainwave has been associated with higher than average levels of intelligence. People with lower I.Q.'s and learning disabilities tend to have very low amounts of gamma brainwave compared to smarter individuals. Increasing your gamma brainwave, especially 40 Hz, will probably correlate with at least a slight intelligence increase.

**Positive thoughts** - Are you a person that always thinks positive and one who has compassion for others? If you already think positively and are relaxed, you probably have high amounts of the gamma brainwave. In people with depression, there is relatively little amounts of the gamma brainwave that can be observed in an E.E.G. If you have depression or are a chronic negative thinker, you may want to really consider naturally increasing your gamma brainwaves.



**Higher energy levels** - Higher brainwave frequencies in the beta and gamma brainwave ranges correlate with increased physical and mental energy. Since the gamma brainwave range is among the highest of known brainwave frequencies, it definitely will give your energy level a jolt upwards. If you currently have low amounts of energy, consider increasing your brain's gamma brainwaves.

**High level of focus** - The mind is extremely focused on just one thought while in the gamma brainwave range. It is important to cultivate a high level of focus in order to efficiently complete tasks and succeed in the world. It is very difficult when you have a learning disability or are lacking in focus to be successful. Sustaining a high level of focus can be done easily by increasing the amount of 40 Hz gamma activity in the brain.

**Improved perception / consciousness** - Gamma brainwaves have been linked to improved perception of reality and the ability to be aware of one's consciousness. Gamma brainwaves are very powerful and may feel like quite an awakening to increase if you don't have much natural gamma activity. Advanced meditators have much more gamma activity than the average person which is why it is easy for them to control and understand their state of consciousness.

## Who has high amounts of gamma brainwaves?

**Advanced Meditators** - Advanced meditators tend to have a large amount of gamma brainwave activity compared to non-meditators. The amount of gamma brainwave and its amplitude increases as one's ability to go deeper into meditation increases. Though most meditation practices increase the amount of slow brainwaves in the alpha and theta range, the gamma brainwave frequency increases as well. The gamma brainwave is what allows meditators to distinguish the alpha, and possibly the theta brainwave ranges. As you are able to gain more meditation experience, you'll learn to naturally boost your gamma brainwave activity. Research has shown that the more experience you have with meditation, the more gamma brainwave activity you'll display.

**Peak performers** - Peak performers tend to have large amounts of gamma brainwave activity compared to others. Though alpha bursts in the left hemisphere has been scientifically proven to be linked to peak performance, gamma brainwave activity is suggested to be essential to performing at an optimal level. If you are interested in manipulating your brainwave patterns to help create a state of peak performance, you may want to try alpha and gamma and be the judge as to which one works better. I've heard of several brainwave training regimens that claim it is best to use 10 Hz alpha for visualization several hours before your sporting event, then the gamma brainwave around 30 min. - 1 hour before your event. The combination of alpha, followed by gamma, is supposed to create a state of peak mental preparation and performance.

**\*Just like any of the other brainwave patterns, too much of a dominant rhythm can cause problems. By no means would it be recommended to increase a brainwave that you already have high levels of. Though it is extremely rare, it is possible that the gamma brainwave could cause a couple problems.**

### **Problems associated with too many gamma brainwaves:**

**Some anxiety** - Though gamma brainwaves are usually not correlated with stress and anxiety, they can be. When a person mostly displays high amounts of beta brainwaves in combination with gamma on an E.E.G., the individual probably has very high levels of anxiety. Though gamma brainwaves usually decrease when we are under stress, the dopamine released from gamma brainwaves can actually cause us to feel overanxious, nervous, or tense. It is best not to increase both gamma and beta brainwaves at the same time. Depending on your current brainwave state, it is important to recognize that though you are usually safe with increasing gamma, overdoing training time or frequency of training may make you feel unpleasantly anxious.

**Clear, conscious perception of reality** - Some people are not prepared for the mental awakening that is associated with gamma brainwaves. If you are currently living a fairly unfocused life and happen to begin entraining the gamma brainwave, it may feel like a huge jolt to your consciousness. If I was extremely unfocused, I'd definitely work on entraining the gamma brainwave, but I'd do it slowly and in moderation. Too much gamma entrainment will actually give you a headache! It is important to not become disturbed by your brain's initial reactions to an increased gamma brainwave and perception of reality.

## Healthy ways to increase gamma brainwaves:

**Brainwave entrainment** - As I mention a lot, brainwave entrainment is great for fine tuning your state of consciousness and awareness. If you want to easily and naturally experience gamma brainwaves, I highly recommend trying any of the programs in my “recommended products” section. Brainwave entrainment is an easy process that involves simply listening to a tone (stimulus) and your brainwaves will automatically, naturally shift in order to match the desired frequency associated with the acoustic tone. If you have Neuro-Programmer 2 or Mind Stereo, I recommend creating a customized gamma brainwave session at 40 Hz. Why 40 Hz? 40 Hz is the brainwave of choice and has been linked to the most powerful, positive effects which are currently associated with the gamma brainwave.

**Getting a good night's sleep** - Gamma brainwave activity is present in Rapid-Eye Movement (R.E.M.) Sleep and is sometimes associated with dreaming. Getting a good night's sleep is important for staying healthy, keeping a healthy, powerful brain. Gamma brainwaves also increase the moment we awaken. Though we are in the theta brainwave for most R.E.M. sleep, the gamma brainwave is present along with the theta. Most non-dream, deep sleep is linked to an increase in delta brainwave activity, whereas dream-sleep is mostly linked to gamma and theta brainwave activity.

**Meditation** - The goal of most types of meditation is to lower the brainwaves into the alpha-theta brainwave range. With that said, as you learn to become more aware and increase awareness of your brainwave state, your gamma brainwave activity will naturally increase. A very safe, healthy way to attempt to increase your gamma brainwaves is to make the act of meditation a daily habit or start up a meditation routine. If you are already meditating, great - you'll naturally increase your awareness. As you increase your awareness, your gamma brainwave will increase.

**Hypnosis / Self-hypnosis** - The goal of all hypnosis and self-hypnosis programs is to target the lower brainwave ranges (i.e. alpha and theta) and implant new beliefs. Though you are slowing your brainwaves, your concentration levels are skyrocketing as well. Only having large amounts of alpha and theta without gamma would make self-hypnosis very difficult and an ineffective practice. The more often you participate in self-hypnosis, the more your gamma brainwave amplitude will increase.

**Yoga - Like meditation** - yoga is yet another activity that promotes relaxation and wellbeing by shifting your brainwaves and increasing your perception of reality. Brainwaves of yogis have shown that they are able to increase their gamma brainwaves to higher than average amounts. Though there are many different types of yoga, if they are practiced correctly, they can be utilized to increase awareness and gain valuable insight from within.

## Unhealthy ways to increase gamma brainwaves?

**There are no known unhealthy activities that increase gamma brainwaves**

**Virtually all activities that are detrimental to mental health, decrease the amount of gamma brainwave activity in the brain -**

Things like general anesthesia, stress, and killing brain cells will decrease your brain's natural production and amount of gamma brainwave activity. As gamma brainwave activity decreases, susceptibility to depression, stress, and unfocused or impulsive thinking may overtake the brain.

## Final evaluation of gamma brainwaves:

I personally think that gamma brainwaves are very invigorating, reality enhancing, and great for everyone to experience. The advanced focus, learning ability, and perception of consciousness is something that everyone should experience. The gamma brainwave is a natural antidepressant and experiencing the power of 40 Hz feels awesome. However, you should be the judge as to whether or not increasing gamma is the brainwave you want to experiment with. If you are already experiencing many of the listed "benefits," your gamma brainwave could be within its healthiest range.

Are you already a very smart, compassionate person? If so, chances are high that your brain could be naturally producing a fair amount of gamma brainwave activity. However, most people do not experience large amounts of the gamma brainwave unless they are in a state of compassion meditation. If you think you are one of the rare people that actually have too much of a conscious perception of reality and are slightly anxious, you may not want to increase your gamma brainwaves.

I highly recommend entraining the 40 Hz gamma brainwave to see how you react. Most people don't produce large amounts of gamma naturally and most people can benefit. There is not much documented evidence that the gamma brainwave can even be entrained, but most people that I've talked to claim that it does have an effect. I have also given the 40 Hz gamma brainwave a shot and have found it to be extremely effective for increasing my focus. If you purchase Neuro-Programmer 2 Professional or any of my recommended brainwave products, you can create a customized 40 Hz gamma brainwave session or use a specialized one that's already built into the library. The built-in gamma brainwave sessions are supposed to be great. I usually stick to creating my own gamma sessions with custom frequencies. If you are confused about your brainwave pattern, consider giving Neuro-Programmer 2 Professional some experimentation and seeing how your brain reacts and your reality is shifted.

## **If you'd like to experience Gamma brainwaves:**

If you have ever given gamma brainwaves a shot, I'd really like to hear about your experience in the comments section. If you are interested in experiencing some gamma brainwaves or have any questions for me, feel free to send me a message through my contact form. I appreciate when you buy products through my referral ads to help me pay for blog hosting services and the promotion of this blog! Increasing your gamma brainwave pattern is definitely an experience that has potential to boost your brain power and take your brain to a higher level of functioning.

**This is a listing of frequencies that various parties have claimed can affect the human mind or body in some way. The following sorts of frequencies are included**

## Brainwave Frequency Listing

Brainwave Frequencies - These are frequencies associated with various mental states. Using brainwave entrainment, you can coax your brainwaves to a certain frequency, and in doing so, achieve the mental state associated with that frequency.

"Healing" Frequencies - These are frequencies that various parties claim could be used to heal illnesses of different kinds, or stimulate some region of the body (chakras). The medium used to do this varies - some of these parties used devices that generated EM fields which were applied to a precise part of the body, while others used vibration and sound. (I don't have any experience with using EM fields - most of my personal toying about with this stuff uses a sound medium.)

Natural Phenomena Frequencies - This includes natural frequencies that occur in nature [Schumann's Resonance, for instance], as well as sound tones calculated from the revolution/orbit of the various planets. The sources of these frequencies claimed that they could affect humans in a variety of ways.

The original page that I began building this compiled information from is

<http://members.aol.com/networktcp/research/freq.htm>

The information in green is from this original page. The information I've added is in violet. My personal comments are in light blue. Hyperlinked words have glossary definitions that you can access by clicking on them. To find the original source for any of this information [or where I got it, at least], check the letters in brackets at the end of the entry and refer to the bibliography. This is also where I'll give any indications about what medium the source for the information used (sound, light, EM fields, or vibrations). By default, assume it to be sound.

<http://www.lunarsight.com>

CYCLES PER SECOND (HERTZ), and Correspondences to MENTAL STATES,

## PHYSIOLOGY, COLORS, NOTES & PLANETS

These frequencies are of all types; light, sound, electrical, etc. The two- or three-character source codes after each frequency are defined in the bibliography.

0.1-1 Organ/muscle resonances [SS]

0.1-3 Delta range, according to [NEU+CRI] - deep sleep, lucid dreaming, increased immune functions, hypnosis [NEU]; Decreased awareness of the physical world. Access to unconscious information. Dominant brainwave in infants under one year old. This range normally decreases when we focus, but this doesn't happen when a person with ADD - delta waves actually increase when they try and focus. [CRI]; "Monroe focus 21" [MB2 via DW];

0.16 - 10 - Neuralgias [AT]

0.18 - 10 - Mod. therapy [AT]

0.20 - 0.26 - Dental pain [AT]

0.20 - 10 - Post-traumatics [AT]

0.28 - 2.15 - Alcohol addiction [AT]

0.28 - 10 - Arthritis [AT]

0.30 - 0.15 - Depression [AT]

0.30 - 10 - Cervobrachial syndrome [AT]

0.37 - 2.15 - Drug addiction [AT]

0.40 - 10 - Confusion [AT]

0.45 - 10 - Muscle pain [AT]

Below 0.5 - Epsilon range, extraordinary states of consciousness, high states of meditation, ecstatic states of consciousness, high-level inspiration states, spiritual insight, out-of-body experiences, Yogic states of suspended animation. [CNR]

0.5 - very relaxing, against headache [MB], for lower back pain [AS] ; Thyroid, reproductive, excretory stimulant, whole brain toner [SS]

0.5-1.5 Pain relief [SS + CMP] ; endorphins, better hypnosis [SS]

0.5-3 Delta range, according to [RA]

0.5-4 Delta range, according to [SS,PWM+AWI]. Deep dreamless sleep, trance, suspended animation [SS]; Anti-aging. Reduces amount of cortisol, a hormone associated with stress & aging. Increases the levels of DHEA (anti-aging) & melatonin (decreases aging process.) [BAR]; Associated with unconscious mind & sleep state - in conjunction with other frequencies in a waking state, "Delta acts as a form of radar – seeking out information – reaching out to understand on the deepest unconscious level things that we can't understand through thought process." Provides intuition, empathetic attunement & instinctual insight. [AWI]; Conducive to miracle type healing, divine knowledge, inner being & personal growth, rebirth, trauma recovery, "one with the universe" experiences (samadhi), near death experience, characterized by "unknowing", merely a blissful "being" state such as deep sleep or coma. [PWM via DW]

The anti-aging info comes from a Brainwave Generator preset authored by TheMind2 - he uses binaurals at 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 & 4.0 HZ. They all play simultaneously.

0.9 Euphoria [SS]

0.95 - 10 - Whiplash [AT]

1-3 - Delta: deep, dreamless sleep, trance state, non-REM sleep [??]; profound relaxation, restorative sleep, feelings of tranquility&peace, if one can remain aware [VUG via DW]

There's disagreement over where the delta range begins & ends - [SS,PWM+AWI] list it as 0.5 to 4.0 HZ, [NEU] 0.1 to 3.0 HZ, & [RA] considers it 0.5 to 3.0 HZ.

1.0 - Feeling of well-being, pituitary stimulation to release growth hormone; overall view of inter-relationships; harmony & balance [MB]

1.05 Helps hair grow + get its color back [RA]; pituitary stimulation to release growth hormone (helps develop muscle, recover from injuries, rejuvenation effects) [HSW]

1.2 - (used on) headaches [RS]

1.45 - Tri-thalamic entrainment format. According to Ronald deStrulle, creates entrainment between hypothalamus, pituitary & pineal. May benefit dyslexics + people with Alzheimer's. [MP2]

1.5 Abrahams Universal Healing Rate [SS]; Sleep [NEU]; Those individuals whose ailments have manifested into the fourth stage of Chronic Fatigue, where



some form of disease is apparent, experienced a release from the negative sensation of their symptoms when moved into 1.5HZ. [NYT via NEU]

1.8 Sinus Congestion seems to clear centering around 1.8 HZ [MPT] (tested with binaural beats, primarily)

2.0 Nerve regeneration [NOR]

2.06 Associated with coccyx (small triangular bone at end of the spinal column) [TOS]

2.15 - 10 - Tendovaginitis [AT]

2.30 Associated with genitals [TOS]

2.5 - pain relief, relaxation [MB]; production of endogenous opiates. [EQ]; Use for sedative effect [ESP]; Sedative effect - reported use on bleeding, bruises, insomnia, and sinusitis. [RS] Sexual stimulation? [SX]

2.57 Associated with bladder [TOS]

2.67 Associated with intestines [TOS]

3.0-5.5 - "Theta1" Range. [DW]

[DW] divides the Theta Range into Theta1 & Theta2.

3.0 Increased Reaction Time [RT] [SS]; 3.0 HZ & below used to reduce muscle tension headaches, but worked less well on migraines & sinus headaches. [RED]; used to treat allergies, in conjunction with 330 HZ [RS]

3.07 Associated with hara (3cm or 1.5 inch below navel, balance of pelvis) [TOS]

3 - 4 Influences physical vision [SS]

3 - 6 Childhood awareness/vivid memories [SS+RA]

3 - 8 Theta Range according to [NEU]; deep relaxation, meditation, increased memory, focus, creativity, lucid dreaming, hypnagogic state [NEU]

3.4 - Sound sleep

3.5 - Feeling of unity with everything, accelerated language retention [×]; enhancement of receptivity [MB]; Earth Resonance (?) [SS]; (a remedy for) depression & anxiety [ESR]; Wholebeing regeneration, DNA stimulation [EI-d]

[MPT] I was under the impression the Earth Resonance is 7.83 HZ - unless [SS] is talking about a different earth resonance.

3.5-7.5 - Theta Range [per CRI] - Creativity, intuition, daydreaming, fantasizing, recollection, imagery, dreamlike, switching thoughts, drowsiness; "oneness", "knowing", repository for memories, emotions, sensations. Can lead to trance-like states. Theta strong during internal focus, meditation, prayer + spiritual awareness. Reflects state between wakefulness+ sleep. Relates to subconscious. Observed in anxiety, behavioral activation+behavioral inhibition. Promotes learning+memory when functioning normally. (I think they mean it helps you process what you've learned - if you tried to actively learn while in the theta state, I doubt you'd have success - but sometimes the theta state can give your subconscious a chance to chew the proverbial fat that you've learned during the day, and digest it.) Abnormal in awake adults, but seen in children up to 13 years old. Suppression of theta can help concentration/focus of attention. [CRI]

3.6 (a remedy for) anger & irritability [ESR]

3.84 Associated with ovaries (Effects=vitality, life at every level) [TOS]

3.9 (a remedy for) unsociable behavior [ESR]; Theta/Delta brainwave range - crystal clear meditation, lucid dreams, enhanced inner awareness, "facilitates easy access to inner resources & creates space for inner peace + self-renewal". [SED]

4-6 - attitude & behavior change [MH]

4-7 - Theta Range : recall, fantasy, imagery, creativity, planning, dreaming, switching thoughts, Zen meditation, drowsiness; Access to subconscious images, deep meditation, reduced blood pressure, said to cure addictions [SS]; Reset the brain's sodium potassium levels, which cuts down on mental fatigue [INT]; Increases sex drive [INT] ; Meditation, Intuitive Augmentation [NEU]; Near Sleep brainwaves, conducive to profound inner peace, "mystical truths", transforming unconsciously held limiting beliefs, physical & emotional healing, purpose of life exploration, inner wisdom, faith, meditation, some psychic abilities, & retrieving unconscious material. [PWB]; bursts of inspiration, twilight sleep learning, deep relaxation, reverie, high levels of awareness, vivid mental imagery. Hypnopompic & Hypnagogic states [NSS via DW]; Military remote viewers operate in this range [RVX]

Some disagreement over the theta range - [NEU] lists it as 3.0 to 8.0 HZ. [AWI] lists it as 4.0 to 8.0 HZ. [RA] & [PWB] both have it as 4.0 to 7.0. [DW] divides it into two ranges, Theta1 (3.0-5.5 hz) & Theta2 (5.5-8.0 hz).

4.0 - 8.0 HZ Theta State according to [AWI]+[VUG via DW] - present in dreaming sleep, deep meditation, storehouse of creative inspiration, spiritual connection,

subconscious mind [AWI]; creative insight, twilight ("sleep") learning, vivid mental imagery. Found in advanced meditators [VUG via DW]

4-12 Skeletal muscle resonances [SS]

4.0 - Enkephalins, Extrasensory perception [MB]; Astral Projection, Telepathy, "Seduction mindset" [EI-d]; Catecholamines, vital for memory & learning, respond at around 4 HZ. [PSI]; Subconscious Problem Solving/Full Memory Scanning (if one can manage to stay awake) [RA+CAV via DW]; Associated with object naming, an important aspect of memory [TDM via DW]; "Those who suffer from Chronic Fatigue exhaust very easily. When moved to 4HZ these individuals showed marked improvement in the length of time between the occurrence of exhaustion after certain exercises were completed." [NYT via NEU]

4.11 Associated with kidneys (Effects=strength) [TOS]

4.5 Shamanic State Of Consciousness/Tibetan Buddhist Chants [MMF via DW]

4.5-6.5 Wakeful dreaming, vivid images [SS]

4.6 Associated with spleen & blood (Effects=Emotional Impulse) [TOS]

4.9 - Introspection [SS]; Induce relaxation, meditation, & deeper sleep [ESR]

5.0 - unusual problem solving [×] reduced sleep needed, theta sounds replacing need for extensive dreaming [INT] ; relaxed states, pain-relief (beta endorphin increases of 10-50% reported) [INT]; Alleged Sphincter Resonance (mechanical)(not good) [TB]

5.0 - 10.0 Relaxation [NEU]

5.14 Associated with stomach (Effects=Emotional Acceptance) [TOS]

5.35 Associated with lungs (Effects=Oxygen, Heat) [TOS]

5.5-8.0 "Theta2" frequency range : .. Consists of trains (long runs) of rhythmic frontal activity centering at 6.5-Hz with amplitudes reaching the 50-100 uV (micro-volt) range. .. Is induced in some people by the performance of a mental task such as mental arithmetic, tracing a maze, counting the number of cubes piled in a three-dimensional representation, & imaging a scene. .. More common in extroverts with low traits of neurosis & anxiety. Because Theta2 is associated with mental tasks & its influence is seen in evoked potential latencies, Mizuki (1987) believes that the appearance of Theta2 closely relates to mechanisms of attention or arousal. [DW]

5.5 - Moves beyond knowledge to knowing, shows vision of growth needed ;

"Inner Guidance" [SS]; Inner Guidance, intuition, heat generation [EI-d]

5.8 (reduce) Fear, Absent-mindedness, Dizziness [ESR]

6.0 - long term memory stimulation [MB] ; (reduce) unwillingness to work [ESR]

6.0 - 10.0 Creative Visualization - about 6hz for a while, then up to 10hz [NEU]

6-9.6 Somatic Responses, tingling, pressure, heat [SS]

6.15 Associated with heart (Effects=love,warmth) [TOS]

6.2-6.7 Frontal Midline Theta (Fm Theta) is a specific EEG frequency seen in those subjects actively engaged in cognitive activity, such as solving math problems & playing Tetris [TDM via DW]

6.26-6.6 Hemispheric desync, confusion, anxiety, low Reaction Time, depression insomnia [SS]

6.30 Hz - Mental & astral projection [SS seconded this]; accelerated learning & increased memory retention.[?]; (reduce) Anger + Irritability [ESR]

6.5 - "Center" of Theta2 Brainwave Frequency Range [DW]; "Your frontal lobe, or brain entrainment of the two hemispheres is around 6.5 hz." [RA]

I quoted the second entry from [RA] directly, due to its ambiguity. It probably ties into what the 5.5-8.0 HZ entry says above.

6.8 Possible use for muscle spasms [ESR] ; associated with telepathy / Schumann Resonance [DHA]

[DHA] associated 6.8 HZ with the Schumann Resonance and the Alpha-Theta borderline. I think this is slightly off - most sources consider the lowest frequency of the Schumann Resonance to be 7.83 HZ, and that's also considered the borderline between Theta brainwave and Alpha brainwaves.

6.88 Associated with collarbones (Effects=vitality, overall balance, stability) [TOS]

7.0 - 8.0 For healing purposes, like laying of hands by a healer, or self vizualization in a healing situation [RA]; Treatment of Addictions [DW]

7.0 - Mental & astral projection, bending objects, psychic surgery; Increased Reaction Time [SS]; Mass aggregate frequency (can deaggregate matter), alleged to resonate & rupture organs at excessive intensity [TB]; Treatment of sleep disturbances [PGS via DW]; Bone growth [NOR]

7.5 - Inter-awareness of self & purpose; guided meditation; creative thought for art, invention music, etc.; contact with spirit guides for direction; entry into meditation [MB]; At 7.5 HZ subjects who before suffered from confused thinking reported an ease at finding solutions to troublesome problems after a re-evaluation was conducted. [NYT via NEU]; (?) Earth magnetic field frequency, useful theta (brain) waves frequency [TB]

7.5 - 8 For Treating Alcohol + Drug Addiction - This range of frequencies tells a person they're satisfied, which is "missing" in addictive personalities [RA]

7.69 Associated with shoulders (Effects=strength of the arms, expansion, teaching) [TOS]

7.8 Schumann Resonance (see 7.83 HZ), ESP activation [EI-d]; Doyere's group (1993), found that short high frequency bursts at 7.7 Hz induced LTP in prefrontal cortex, though only for one day. [AA via DW]

7.8-8 Stimulates ESP, paranormal [SS]

7.83 - Earth Resonance, grounding [×], "Schumann Resonance." [TS, ESR+HSW, MAG]; anti-jetlag, anti-mind control, improved stress tolerance [SS]; psychic healing experiments [ESR]; pituitary stimulation to release growth hormone (helps develop muscle, recover from injuries, rejuvenation effects) [HSW]; Earth Resonance Frequency - 'leaves you feeling revitalized like you've spent a day in the country.' [PWM via DW]; reports of accelerated healing/enhanced learning - "the earth's natural brainwave" [MAG]

[HSW] notes that higher octaves of the 7.83 Schumann Resonance can also stimulate the pituitary in the same way that 7.83 HZ can - especially 31.32 HZ. (One needs to be careful to distinguish between octaves of the 7.83 Schumann Resonance, and the other six Schumann Resonances, which are not higher octaves of 7.83 HZ.)

8-8.6 Reduced Stress/Anxiety [SS]

8.0-10.0 learning new information [MH]; Alpha - Rapid Refreshment 15 min [NEU]; "LOW ALPHA" inner-awareness of self, mind/body integration, balance [CRI]

8.0-12.0 - Alpha range (per NEU, RA, PWM, NSS & CRI) - light relaxation, "super learning", positive thinking. [NEU]; Conducive to creative problem solving, accelerated learning, mood elevation, stress reduction, etc., characterized by intuitive insights, creative "juice", inspiration, motivation, daydreams etc. Relaxed, yet alert [PWM via DW]; Associated with calm, relaxed, unfocused (not concentrating), lucid mental states, dream sleep & pleasant drifting feelings or

emotions. [NSS via DW] ; promotes mental resourcefulness, aids in mental coordination, enhances relaxation, "Can move quickly + efficiently to accomplish whatever task is at hand.", feelings of "at ease" + calm, promotes good moods, a bridge between conscious + subconscious, alpha waves indicate a person is alert but not actively processing information, seen more in extroverts than introverts, seen during creative problem solving [CRI]

As you can see, different sources contradict each other. Some paint Alpha as a range of relaxed attentiveness, ideal for learning. Others associate it with "daydreaming" [which doesn't sound like it would be good for learning]. Unless they're not talking the "attentive" sort of learning [i.e. sitting in a classroom taking notes], but rather the "trying to assemble it all together in our heads" sort of learning, where our subconscious is doing most of the work in the background, and our conscious mind takes a backseat. I see the Alpha range as the fine line between daydreaming and alertness. It's like a baseball player on a base - he'll move away from the base, so that he can steal if the opportunity presents itself. But he always stays close enough to the base so he can get back in case the pitcher throws the ball to the baseman. Alpha Range is the same way - it's close enough to the "attentive" mental state for us to go to it as needed. But we can also quickly retreat into the realm of sleep if need be. [MPT]

8-13 - Alpha range - Non-drowsy but relaxed, tranquil state of consciousness, primarily with pleasant inward awareness; body/mind integration. ; Amplifies dowsing, empty-mind states, detachment, daydreams, mind/body integration. (can cause) epileptic seizures [SS];

Note : [NEU], [RA], [PWM], [NSS] + [CRI] consider the alpha range to be 8.0-12.0. [AWI] considers it 9.0-14.0. [VUG] has it as 9.0-13.0.

8-14 - Qi Gong and infratonic Qi Gong machine [QG]

8.0 - Past life regression [x]; More Lymphocytes, DNA repair (RAD-6) [SS]; Associated with Base/Muladhara chakra (Color=Red) (Body Parts=Adrenals, Spinal Column, Kidneys) (Effects=Physical energy, will to live)(Note=C) [OML]

8.22 Associated with mouth (Effects=speech, creativity) [TOS]

8.3 - Pick up visual images of mental objects [??]; clairvoyance [SS]; "Monroe Focus 12?" [NEU]

8.6-9.8 Induces sleep, tingling sensations [SS]

9.0, 11.0, 16.0 [bad] documented calcium ion migration (brain tissue) [SS]

There's some disagreement over whether these frequencies offer anything to fear when used for binaural beats. Here's the thread from the Brainwave

Generator message board :

<http://groups.yahoo.com/group/bwgen/message/4592>

9.0 - 13.0 - Alpha Range (according to [VUG]) - relaxed, not thinking about anything in particular, sometimes a pleasurable feeling of "floating". Often dominant in certain kinds of meditation, alpha waves have for the past twenty years been associated with calm, lucid mental states (the "alpha state"). They're also often detected during dream sleep. This pattern typically occurs in daydreaming, relaxed awareness, guided or focused imagery & smoothly rhythmic athletic activity. There's often a euphoric, effortless feeling of "flow" as the doer is absorbed in activity and subject + object are felt to be united. [VUG via DW]

9.0 - 14.0 Alpha range (according to [AWI]) - Relaxed & detached awareness, visualization, sensory imagery, light reverie. Also, gateway to meditation - provides bridge between the conscious & subconscious mind. [AWI]

9.0 - Awareness of causes of body imbalance & means for balance[×] Blind person phantom touch reading (somatosensory cortex) [RA]; Associated with Sacral/Svadhsthana chakra (Color=Orange) (Body Parts=Gonads, Reproductive System) (Effects=Relationships/Sexuality) (Note=D) [OML]

9.19 Associated with upper lip (Effects=emotions, conflict resolution) [TOS]

9.4 Major frequency used for prostate problems. [ESR] - Self-explanatory. =)

9.41 - Pyramid frequency (outside)

9.5-10 - Center of Alpha Range - The brain's scanning/idling frequency - indicating a brain standing by, waiting to "give way to beta should attention be required, or be the bridge, the gate, to Theta & Delta for drowsiness, sleep, and certain cognitive challenges. [DW]

He gives credit for the 'brain scanning' factoid to Eccles & Walter (1950). (It was their conclusion.)

9.6 - Mean dominant frequency associated with earth's magnetic field [EQ]; Facial Toning [ESR] (I'm not completely sure what "facial toning" is.. Anybody?)

9.8-10.6 Alertness [SS]

10 - enhanced release of serotonin & mood elevator, universally beneficial, use to try effects of other mixes [MB]. Acts as an analgesic, safest frequency, especially for hangover & jet lag. [EQ] Meg Patterson used for nicotine withdrawal. [MB3] dominant alpha frequency, clarity, normalcy, anti-convulsant, circadian rhythm resync, activate kidneys, raise body temp, more serotonin [SS];

Good when trying to correlate information by the subconscious - Sort of a waiting frequency while the subconscious does the work at lower frequencies. [RA]; Motor impulse coordination (Motor Control cortex) [RA]; Learning a foreign language [RA+PWM via DW]; Centering, Sleep Spindles, Arousal [EI-d]; Associated with Solar Plexus/Manipura chakra (Color=Yellow) (Body Parts=Pancreas, Stomach, Liver, Gall Bladder, Nervous System) (Effects=Spiritual wisdom, self-healing)(Note=E) [OML]; Increased alertness (caused by an increase in norepinephrine + serotonin & a decrease in melatonin), sense of well being & decreased pain (caused by increase in beta-endorphins) [RED]; Adrenal Stimulant [RS]; Significant improvements in memory, reading & spelling are reported (in conjunction with 18 HZ) [RUS via DW]; Treatment for Attention Deficit Disorder/Hyperactivity [LUB via DW]; Treatment for closed head injury [HOF via DW]; 'Berger Rhythm' [BER via DW]; (used on) headaches [RS]; ligament healing [NOR]

10-12: HIGH ALPHA RANGE - centering, healing, mind/body connection [CRI]

10-14 Dream/sleep spindles [SS]

10.2 Catecholamines

10.3 Associated With Nasal Passages (Effects=breathing, taste) [TOS]

10.5 - Frequency for healing of body, mind/body unity, firewalking [x]; potent stabilizer & stimulating for the immunity, valuable in convalescence. [MB] Relaxed alertness, contemplation, body healing, mind over matter [SS] Lowering Blood Pressure [RA+PWM via DW]; Associated with Heart/Anahata chakra (Color=Green) (Body Parts=Thymus, Heart, Blood, Circulatory System) (Effects=Love of Life, love of self&others) (Note=F) [OML]

10.6 - Relaxed & alert

10.7 Associated with ears (Effects=hearing, formal concepts) [TOS]

11.0 (& Below) - Stress Reduction (DW)

11-14 Focused alertness [SS]

11.0 (used to) achieve "relaxed yet alert" states. [PWM]

11.5-14.5 An implication for neurotherapy is that if increased intelligence + mental efficiency is the objective, then a frequency band with a 13-Hz center should be used. A more desirable frequency band than 12 to 15-Hz is 11.5 to 14.5-Hz. [DW]

12.0 - Centering, doorway to all other frequencies [x] ; frequency of earth resonance (Hercules - a researcher); Centering, mental stability, transitional



point, time seems faster [SS]; To stimulate mental clarity [ESR]; Associated with Throat/Vishuddha chakra (Color=Blue) (Body Parts=Thyroid, Lungs, Vocal Cords) (Effects=Expression/self in society)(Note=G) [OML]

12.0-36.0 Beta Range [per CRI] - dominant brainwave in alert/awake/anxious adults with their eyes open. Comes into play when "listening & thinking during analytical problem solving, judgment, decision making, processing information about the world around us." [CRI]

12.0-14.0 Learning Frequency - Good for absorbing information passively, when you plan to think about it later. [RA]

[RA] distinguishes between active studying where you're processing information & passive studying where you're just trying to absorb information + plan to think about it later. For the former, he suggests 36 to 44 HZ.

12.0-15.0 Beta (low) - relaxed focus, improved attentive abilities [NEU+CRI]; Treating Hyperactivity [RA] ; Sensorimotor Rhythm (SMR) - Used in the treatment of mild autism [AUT via DW]

12.3 Associated with eyes (Effects=Visualization) [TOS]

13-27 - Beta Range (according to [NSS]) - Associated with focused attention towards external stimuli, alert mental activity, normal waking consciousness, & active thought processes. [NSS via DW]

13-30 - Beta Range - Normal wakefulness, the taking in & evaluating of various forms of data received through the senses. It's present with worry, anger, fear, hunger & surprise. [x] Waking state, motivation, outer awareness, survival, problem solving, arousal, dendrite growth, combats drowsiness [SS]; Conscious Thinking, Autonomic Processes & Emotions [EH]

[NSS] considers Beta to be 13-27 HZ, [AWI] considers it 14-38 HZ, [PWM] & [RA] consider it 13-40 HZ, and [VUG] (seems to) consider it 14-30 HZ. [CRI] lists it as either 12-36 or 14-36 - it contradicts itself in different parts of the article.

[NEU] breaks up Beta into ranges - Low Beta=12-15 HZ, Mid Beta=15-18 HZ, & High Beta=18.0+ HZ. [CRI] does as well.

13-40 Beta Range (according to [RA] + [PWM]) - a high frequency pattern, conducive to stimulating energy + action; most of our current institutionalized education is beta geared, characterized by logical, analytical, intellectual thinking, verbal communication, etc. [PWM via DW]

13.0 - Alleged sphincter resonance (mechanical)(not good) [TB]; Associated with Brow/Ajna chakra (Color=Indigo/Violet) (Body Parts=Pituitary, Lower Brain, Left

Eye, Ears, Nose, Nervous System)(Effects=Visualization, Conceptualization)(Note=A) [OML]

13.8 - Associated with Frontal Lobes (Effects=the seventh sense, final decision) [TOS]

14-16 - associated with sleep spindles on EEG during second stage of sleep [EQ] [note SS said 10-14]

14-15 - Slows conditioned reflexes [SS]

14.0-30.0 - Beta Range (?I think? according to VUG) - This pattern is optimal for intense mental activities such as calculations, linear logical analyses & other highly structured functions [VUG via DW]

14.0 - Awake & alert [??]; Alert focusing, vitality, concentration on tasks [SS?]; Schumann Resonance (2nd of 7 frequencies. 7.83 HZ being the first) [TS+HSW]; Intelligence Enhancement in conjunction with 22.0 HZ (medium=audio-visual stimulation) [APE]

[APE] used audio-visual stimulation alternating between 14 & 22 HZ. Check the link under [APE]'s bibliography entry for more information.

14.1 "Earth Resonance" [SS]; Earth Harmonics - accelerated healing [EI-d] (probably tied to Schumann Resonance above.)

15.0-18.0 Beta (mid) - increased mental ability, focus, alertness, IQ [NEU+CRI]; "alert but not agitated"/"aware of self & surroundings" [CRI];

15-24 Euphoria [SS]

I will vouch for this one - I find binaurally produced tones between 18 HZ & 21 HZ have very pleasant results, in a jogger's high sort of way. This effect seems the strongest around 20 HZ. While other sources equate this frequency range with stress, I'm thinking it might be like the roar of a car engine - in small doses, it can be quite a rush, but too much of it can lead to a headache. The serotonin system is funny like that. [MPT]

15 - chronic pain [MB]; Sound which bypasses the ears for sublimation (auditory cortex) [RA]; Associated with Crown/Sahasrara chakra (Color=Violet/White) (Body Parts=Pineal, Upper Brain, Right Eye)(Effects=Integration of personality & spirituality.)(Note=B) [OML]; capillary formation, fibroblast proliferation, decreased skin necrosis [NOR]

15.4 - Associated with Cortex (Effects=intelligence) [TOS]

16.0 - bottom limit of normal hearing [MP2]; Release oxygen & calcium into cells [CC]

16.4 Associated with top of head (Effects=spirit, liberation, transcendence) [TOS]

18.0-22.0 - Beta: outward awareness, sensory data [??] ; Throws brain's sodium/potassium levels out of balance, resulting in mental fatigue. [INT]; Theoretically can be used to achieve a "relaxed body/focus mind" state of consciousness [DW]

[INT] + [DW] seem to contradict each other here.

18.0+ Beta (high) - fully awake, normal state of alertness, stress & anxiety [NEU]; Significant improvements in memory, reading & spelling are reported (in conjunction with 10 HZ) [RUS via DW]; (used to) improve hyperactive behavior [PWM via DW]; Associated with mental activity like math + planning - alert, but may also be agitated [CRI]

20-30 Phospene imagery, peak luminosity in visual field [SS]

20-40 Meditation For Stress Relief/Just At The Edge Of Audible Sound/As A Musical Background [RA]

20.0 - fatigue, energize. Causes distress during labor.[EQ]; Human Hearing Threshold [SS]; Schumann Resonance (3rd frequency of 7) [TS+HSW]; Imposing subconscious commands on another (thought center) [RA]; Stimulation of pineal gland [ESR][JB] ; Helps with tinnitus (a condition that causes ear-ringing) [JB]; Adrenal Stimulant, (used on) sinus disorders/sinus infection/head cold/headache [RS]; Commonly used "cure-all" Rife Frequency [CR]

20.215 LSD-25 [PSI] (he implies it could mimic the effects of)

20.3 "Earth Resonance" [SS]

Probably the same thing as the Schumann Resonance at 20 HZ.

22.0 Used in conjunction with 14 HZ for intelligence enhancement (medium=audio-visual stimulation)[APE]; Used in conjunction with 40 HZ for 'out of body' travel [EWI via DW]; Also used with 40 HZ for psychic healing. [FAH via DW]

[APE] used audio-visual stimulation alternating between 14 and 22 HZ. Check the link under [APE]'s bibliography entry for more information.

22.027 Serotonin [PSI] (he's unclear what he means by this)

25.0 Bypassing the eyes for images imprinting (visual cortex) [RA]; Tested clinically with patients who complain of anxiety [PGS via DW]

26.0 Schumann Resonance (4th frequency of 7) [TS+HSW];

26.0 - 28.0 Astral Projection / produced during meditation by some [ANO]

26.4 "Earth Resonance" [SS]

27 - 44 Frequency range that cats purr at - said to have restorative effects on the body, particularly the 'healing and strengthening of bones' [BON]

27.5 lowest note on a piano [MP2]

30 Meg Patterson used for marijuana. [MB3]

30 - 60 Gamma Range - little known but includes decision making in a fear situation, muscle tension, [EH]

[INT] considers Gamma to start at 40 HZ.

30 - 190 Lumbago [AT]

30-500 High Beta: Not associated currently with any state of mind. Some effects have been observed, but currently not enough research has been done in this area, to prove, or disprove, anything.; a few people able to replicate at will (?? - not sure what that last point means)

Starting at 30 HZ, sources begin to seriously disagree over what the names of each range are.

[EH] considers 30 to be the beginning of the Gamma range, which it believes run to 60. It then considers 60 to 120 to be the Lambda range.

Incidentally, [INT] believes that 40 is where Beta ends & Gamma begins.

31.32 Pituitary stimulation to release growth hormone (helps develop muscle, recover from injuries, rejuvenation effects) (this is a higher octave of the 7.83HZ Schumann Resonance) [HSW]

Note - NOT one of the seven Schumann Resonances - it's a higher octave of the 7.83 HZ Schumann Resonance. I had originally thought it was related somehow to the Schumann Resonance at 33 HZ, and I was wrong. (Sorry.)

32 Desensitizer; enhanced vigour & alertness [MB]

33 Christ consciousness, hypersensitivity, Pyramid frequency (inside) ; Schumann Resonance (5th frequency of 7) [TS]

Funky coincidence it lines up with the Christ Consciousness & Pyramid frequency, eh? I've had some interesting results with this one -- particularly when I overlap waves at 9.0 HZ (pyramid outside frequency). The mind tends to wander in funny ways.

35 - 150 Fractures [AT]

35 - 193 Arthralgy [AT]

35 Awakening of mid-chakras, balance of chakras

36 - 44 Learning Frequencies, When [Actively] Studying Or Thinking. Helps To Maintain Alertness. Waking Operating State [RA]; Frequencies of the olfactory bulb, prepiriform cortex & amygdala [DSH via DW]; Coordinates simultaneous processing of information in different areas of the brain. Associated with high-level information processing. 'A good memory is associated with well-regulated & efficient 40 HZ activity, whereas a 40 HZ deficiency creates learning disabilities.' [CRI]

38 Endorphin release [WL]

39.0 Schumann Resonance [6th frequency of 7] [TS]

40-60 anxiolytic effects & stimulates release of beta-endorphines [MB]

43 - 193 Carcinomatosis [AT]

40.0 - dominant when problem solving in fearful situations. [EQ] ; Gamma - associated with information-rich task processing & high-level information processing [NEU]; "'For scientists who study the human brain, even its simplest act of perception is an event of astonishing intricacy. 40 Hz brain activity may be a kind of binding mechanism', said Dr. Rodolfo Llinas a professor of neuroscience at New York University. Llinas believes that the 40-cycle-per-second wave serves to connect structures in the cortex where advanced information processing occurs, and the thalamus, a lower brain region where complex relay & integrative functions are carried out." [NME via NEU]; Used in conjunction with 22 HZ for 'out of body' travel [EWI via DW]; Also used with 22 HZ for psychic healing. [FAH via DW]; "40--Hz activity varies from 38.8 to 40.1-Hz, regardless of the electrode site. The average frequency is in the ~39.5-Hz range. In summary, when the body is profoundly relaxed & the mind is in a state of high focus and concentration, 20 & 40-Hz brain activity can be seen in the raw and quantitative EEG of some subjects. It is possible that 18 to 22-Hz Beta & possibly 40-Hz neurofeedback training may help create a "relaxed body/focused

mind" state of consciousness." [DW]; Activity in the ectosylvian & lateral cortex, medial geniculate, reticular formation, center median thalamus & hippocampus [ROW via DW]; Confirming Sheer et al.'s work, compared the EEG of middle- & high-I.Q. subjects during mental multiplication activity. A 40-Hz rhythm occurred just prior to the subject's answering the question. Forty--Hz pulses are thought to lead to synchronization + coordination of neurons assigned to the processing of incoming sensory stimulation. Put in "computerese," 40-Hz may be the brain's "operating system" frequency [GIA via DW] Involved In The Processing Of Psi Information (see note) [EMC]

Considered the dividing point between beta waves + gamma waves, although there's some disagreement about this. [INT] <http://brain.web-us.com/40hz/default.htm>

Gamblers were presented a computer screen with four playing cards shown on them, and then asked to guess which of the four cards would appear on the screen by itself next. Their guessing was about as accurate as random chance, BUT when they had their eyes on the correct card that would inevitably turn up, the amount of 40HZ activity registering in their brain was higher. Go here for more information: <http://groups.yahoo.com/group/bwgen/message/3668>

45.0 Schumann Resonance (7th frequency of 7)[TS]

46.98 - Useful for "weird effects" (use with 62.64 HZ and 70.47 HZ) [TB]

[TB] gets the award for most ambiguous description. Although, I'm including it since it's a very specific frequency. I'll research it further and try to dig up some additional information.

50-60 Documented negative effects too numerous to mention There is no correlation given with signal strength or modality used, i.e. audio-visual, EMF, magnetic, electrostatic, gravitic. Also, most ELF research is now Govt classified, particularly since the mid-1960's when Hamer discovered behavioral effects as the result of applied sinusoidal field gradients as low as 4 volts. [SS via DW]

50.0 - dominant frequency of polyphasic muscle activity, mains electrical in U.K. [EQ]; Slower cerebral rhythms [??]

55.0 - Tantric yoga; stimulates the kundalini. [x]

60 - 120 Lambda Range - Little known but includes central nervous system activity [EH]

60 electric power lines

62.64 - Useful for "weird effects". (use with 46.98 HZ and 70.47 HZ) [TB]

63 Astral projection [×]

65.8 Associated with coccyx (small triangular bone at end of the spinal column) (higher octave of 2.06 HZ) [TOS]

70-9,000 Voice spectrum [MP1]

70 Mental & astral projection ; Endorphin production/used with electroanalgesia. [VPL]

70.47 Useful for "weird effects". (use with 46.98 HZ and 62.64 HZ) [TB]

72 Emotional spectrum [??]; Used on sinusitis/sinus infection/head cold [RS]

73.6 Associated with genitals (higher octave of 2.30 HZ) [TOS]

80 Awareness & control of right direction. Appears to be involved in stimulating 5-hydroxytryptamine production, with 160Hz. Combine with 2.5 Hz. [EQ]

82.3 Associated with bladder (higher octave of 2.57 HZ) [TOS]

83 Third eye opening for some people

85.5 Associated with intestines (higher octave of 2.67 HZ) [TOS]

90.0 - 111.0 Pleasure-producing beta-endorphins rise between these frequencies. [PSI]

In the MIDI scale, the notes that would fall in this range begin with F#3 and go up to A3. ["A3" being the fourth octave up -- since there's an A0, and A1, A2 lower than it.] Playing the F#3 and the A3 as a chord seems to function as a good painkiller. An additional undertone in the alpha range of frequencies sometimes helps too. [Try adding a tone around 12.5 HZ].

90.0 Good feelings, security, well-being, balancing [??]

95.0-125.0 Acoustical Resonances of Assorted Ancient Structures [ACS via DW]

95.0 Use for pain along with 3040 HZ [ESR]

98.4 Associated with hara (3cm or 1.5 inch below navel, balance of pelvis) (higher octave of 3.07 HZ) [TOS]

100 Can help with pain [used with electrical stimulation] [CMP]

The site specifically mentions it can be good for pain initially, but then recommends using 0.5 or 1.5 to treat pain.

105 Overall view of complete situation

108 Total knowing

110.0 Frequency associated with stomach. [Note=A] [BH1][BH4]; Associated with ovaries (Effects=vitality, life at very level) (higher octave of 3.84 HZ) [TOS]

111 Beta endorphins [MB2]. cell regeneration [??]

117.3 Frequency associated with Pancreas [Note=C#] [BH1][BH4]

120 - 500 P.S.I., moving of objects, changing matter, transmutation, psychokinesis

120 Helps with fatigue (Medium=pad)[JB]; (used on) sinus disorders/sinus infection/head cold [RS]

125 Graham potentializer; Stimulation [MH]; (used on) sinusitis [RS]

126.22 - Sun, 32nd octave of Earth year [HC]; The Frequency Of The Sun (Note=C) (Color=Green) (Tempo=118.3 BPM) (Chakra=Manipura, also called Hara {associated with Navel & 3rd lumbar vertebrae}) (Effects=advances the feeling of centering of magic & of the transcendental) [HC/Planetware website]

There seems to be a little disagreement between [HC] & [HC/Planetware] over what exactly this is the frequency of - [HC] ties this into the period it takes the earth to revolve around the sun, while [HC/Planetware] says this is the frequency it would take an imaginary planet to orbit the outside edge of the sun. My money is on the second, since there is another frequency that is given for the Earth year. (136.1 HZ)

This is tricky to paraphrase, so here it is as it appeared on the Planetware website :

"Meditation carried out to this tone will lead to state beyond good and bad, shame and guilt, beyond space and time, knowledge and wisdom, action and rest an being and not-being. It leads to a state where being has no name, to a state where the all-one and the all encompassing are no longer separate entities but are reunited at their one common origin, the origin that is also you."

132.0 Associated with kidneys (Effects=strength) (higher octave of 4.11 HZ) [TOS]; Associated with coccyx (small triangular bone at end of the spinal column) (higher octave of 2.06 HZ) [TOS]



136.1 Sun: light, warmth, joy, animus [RV]; Resonates with the earth year (Note=C#) (Color=Turquoise Green) (Effects=calming, meditative, relaxing, centering) [PSI]; Period it takes earth to revolve around sun (Tempo=63.8\*127.6) (Chakra=Anahate/Heart chakra)(Effects=relaxing, soothing, balancing, harmony with the cosmos, associated with the soul {"frequency of the soul"}) (Medicinal=Sedative) (Other=significant tone in Indian music {called it the "sadj" or "father to others" - it was a keynote} - corresponds to "OM" & the Christian "AMEN") [HC/Planetware website]

Note : [PSI] seems to disagree a bit with the original source on the list. [PSI] says this one calms/centers, while the original source seems to associate it with happiness. Also some disagreement between [RV] and [HC/Planetware], once associating this with the sun, and the other associating this with the frequency with the earth year. I suppose you could associate the earth year with the sun, since it's the time it takes the earth to go around the sun, but 126.22 HZ uses "frequency of the sun" in a little different context. See the comments with that frequency for more.

140.25 Pluto: power, crisis & changes [??]; Frequency associated with the orbit of Pluto; (Note=C#) (Color=blue-green) (Tempo=65.7 \* 131.4 BPM) (Effects = support the magic group dynamic principle and is said to be responsible for integration into certain structures of society) [HC/Planetware website]

141.27 Mercury: intellectuality, mobility [??]; Frequency associated with orbit of Mercury (Note=C# or D) (Color=blue-green or blue) (Tempo=66.2) (Chakra=Vishudda/Throat chakra) (Effects=Supports speech center and communicative-intellectual principle, associated with communication and cleverness) [HC/Planetware]

[HC/Planetware] says the frequencies of planets revolving around the sun are less important than those of the moon, sun, and Earth.

Again, I'm not sure how [HC/planetware] is associating these frequencies with these chakras. {shrugs}

A discrepancy in the note and color - they're both given twice - once as C# and blue-green, the second time as D and blue.

[HC/Planetware] and [BH] seem to associate different frequencies with the revolutions of each planet - these frequencies are determined by HC/Planetware by taking higher octaves of the actual period - octaves that are in the audible range. [BH] might use even higher octaves than [HC/Planetware] does, or some other method completely.

144.0 (helps with) headaches (Medium=pad)[JB]

144.72 Mars: activity, energy, freedom, humor [??] ; Frequency associated with the orbit of Mars (Note=D) (Color=blue) (Tempo=67.8 \* 135.6 BPM) (Effect : Supports strength of will and focused energy, ability for achievement) [HC/Planetware]

146.0 (used on) sinus infection/head cold [RS]

147.0 Associated with the spleen/blood (Effects=Emotional Impulse) (higher octave of 4.6 HZ) [TOS]; Associated with genitals (higher octave of 2.30 HZ) [TOS]

147.85 Saturn: separation, sorrow, death [??]; Frequency associated with orbit of Saturn (Note=D) (Color=Blue) (Tempo=69.3 \* 138.6 BPM) (Effects=enhances concentration and the process of becoming conscious + shows very clearly karmic connections, brings structure and order - is considered to be a cosmic controller) [HC/Planetware]

I'm not completely sure what the dual tempo means. I'll have to research that further.

160.0 Appears to be involved in stimulating 5-hydroxytryptamine production, with 80 Hz. [EQ]; Use for rapid relief from headaches [ESR]; used on sinus infection/head cold [RS]

164.3 Frequency associated with Gall Bladder [Note=E] [BH1][BH4]

165.0 Associated with stomach (Effects=Emotional Acceptance) (higher octave of 5.14 HZ) [TOS]; Associated with bladder (higher octave of 2.57 HZ) [TOS];

165.0-170.0 Spiritual fall/consciousness collapse [JM]

[JM] said to avoid between 165.0 HZ to 170 HZ, "although the repercussions extend for a ways on either side of that." He's not completely clear why he feels this particular range should be avoided. (He had said he'd go into more detail when Awakening Mind II is released.)

171.0 Associated with lungs (Effects=Oxygen, Heat) (higher octave of 5.35 HZ) [TOS]; Associated with intestines (higher octave of 2.67 HZ) [TOS]

172.06 - Resonates with the Platonic year {about 26,000 years} (Note=F) (Color=purple-violet) (Effects=joyful, cheerful, spiritual effect) [PSI]; The Frequency Of The Platonic Year (Color=red-violet {purple}) (Tempo=80.6 BPM) (Chakra=Sahasrar/Crown chakra) (Effects=cheerfulness, clarity of spirit, cosmic unity on highest levels) (Medicinal=antidepressive) (Other=F is considered the tone of the spirit, and had a lot of significance to the Chinese) [HC/Planetware]

website]

Other sources [PM] disagree about the tone F being associated with the Crown chakra, which is how HC/Planetware connects this frequency to the crown chakra. [PM] considers the crown chakra to be associated with the B note, and not F.

176.0 - Frequency associated with the colon. [Note=F or F#] [BH1][BH4]

183.58 - Jupiter: growth, success, justice, spirituality [??] ; Frequency associated with the orbit of Jupiter (Note=F#) (Color=Red) (Tempo=86.05 \* 172.1 BPM) (Effects : supports creative power and continuous construction) (Associated with Jupiter : Generosity, Continuity, Magnanimity, Joviality) [HC/planetware website]

185.0 - (used on) sinus infection/head cold [RS]

187.61 frequency of "moon culmination" ; [HC/planetware website]

194.18 frequency of Synodic "Earth" Day {the "day tone"} (Note=G) (Color=Orange Red) (Tempo=91.0 BPM) (Chakra=Muladhar/Base chakra) (Effects = dynamic, vitalizing)(Medicinal="tonifies") (Other="weather determining" spheric frequency, influences proteins, brings one into harmony with nature") [HC/planetware website]

Note : By "weather determining", [HC/planetware] seems to imply that somebody tuned into this frequency may be able to predict the weather in the short-term future. I'm just a little, little bit skeptical of this one, but if anybody has any luck with it, let me know.

I'm not sure how [HC/planetware] is associating these chakras to these frequencies. It doesn't seem to be based on the note, since G isn't the note typically associated with the base chakra [per PM]. The associations might tie in with something astrological instead. {shrugs}.

194.71 - Earth: stability, grounding [??]; Key Of G resonates with frequency of earth day, the color orange-red, & has a dynamic, stimulating, and energizing effect on the body-mind. [PSI]

There seems to be some disagreement between [PSI] and the original source for this list. [PSI] associates this frequency with energizing, while the original source associates it with stability/grounding.

I think this one, and the one right below it [197.71 HZ] might be based on the same thing. One source might have done a typo, and then other sources based their information from that.

197.0 Associated with heart (Effects=love,warmth) (higher octave of 6.15) [TOS]; Associated with hara (3cm or 1.5 inch below navel, balance of pelvis) (higher octave of 3.07 HZ) [TOS]

197.71 frequency of Sideric Day ; [HC/planetware website]

207.36 - Uranus: spontaneity, independence, originality [??]; Frequency associated with orbit of Uranus {insert one of dozens of bad jokes here} (Note=G#) (Color=Orange) (Tempo = 97.2 BMP) (Effects = supports the power of surprise and renewal, has primeval and erotic power) [HC/planetware website]

210.42 frequency of Synodic Moon (Note=G#) (Color=orange) (Tempo=98.6 BPM) (Chakra=Svadisthan {2nd Chakra}) (Effects=stimulates sexual energy, supports erotic communication) (Medicinal=regulation of menstruation, disturbances in the gland and lymph system) [HC/planetware website]

211.44 - Neptune: the unconscious, secrets, imagination, spiritual love [??]; frequency associated with orbit of Neptune (Note=G#) (Color=orange) (Tempo=99.1 BPM) (Effects = supports intuition, the unconsciousness, and enhances the dream experience) [HC/planetware website]

220.0 Frequency associated with lungs. [Note = A] [BH1][BH4] Associated with collarbones (Effects=vitality, overall balance, stability) (higher octave of 6.88 HZ) [TOS]; Associated with ovaries (Effects=vitality, life at very level) (higher octave of 3.84 HZ) [TOS]

221.23 - Venus: beauty, love, sexuality, sensuality, harmony [??]; Frequency associated with the orbit of Venus (Note=A) (Color=yellow-orange) (Tempo=103.7 BPM) (Chakra=Ajna/Third Eye) (Effects=supports higher love energy and aspiration for harmony) [HC/planetware website]

227.43 frequency of Sideric Moon ; [HC/planetware website]

229.22 frequency of Metonic Cycle [related to moon] ; [HC/planetware website]

234.16 frequency of Moon knot ; [HC/planetware website]

241.56 frequency of Saros periode ; [related to moon] ; [HC/planetware website]

246.04 frequency of Apsidis rotation ; [related to moon] ; [HC/planetware website]

250.0 Elevate and revitalize

254.57 Frequency associated with orbit of Icarus (asteroid) [MPT]

256.0 Root Chakra (1:1) (Note=C) [BH3] [MWH]

263.0 Associated with mouth (Effects=speech, creativity) (higher octave of 8.22 HZ) [TOS]; Associated with kidneys (Effects=strength) (higher octave of 4.11 HZ) [TOS]

264.0 Related to Personality somehow. (Note=C+) [BH4]

272.0 33rd octave of Earth year [HC]; Frequency associated with Selenium (mineral nutrient) (Note=C#) [BH]

272.2 Frequency associated with orbit of Earth (Note=C#) [BH2]

273.0 Transpersonal Chakra (1:15) [Note=C#] (Earth Orbit 272) [BH3]

280.5 Frequency associated with orbit of Pluto [Note=C#] [BH2]

281.0 - Frequency associated with Intestines [Note=C#] [BH1]

281.6 - Frequency associated with Small Intestine [Note=C#] [BH4]

282.4 - Frequency associated with orbit of Mercury. [Note=D] [BH2]

288.0 - Polarity Chakra (9:1) [Note=D] (Mars Orbit 289) [BH3]; Sacral Chakra [MWH]

289.4 - Frequency associated with orbit of Mars. [Note=D] [BH2]

293.0 - "unknown" Chakra (1:14) (Note=D+) (Saturn Orbit 296) [BH3]

I take it by D+, she means a note somewhere between D and D#. A quarter note, perhaps. [MPT]

294.0 - Associated with the upper lip (Effects=emotions, conflict resolution) (higher octave of 9.19 HZ) [TOS]; Associated with the spleen/blood (Effects=Emotional Impulse) (higher octave of 4.6 HZ) [TOS]

295.7 - Frequency associated with orbit of Saturn (Note=D#) [BH2]

295.8 - Frequency associated with Fat Cells (Note=C#) [BH1][BH4]

296.07 - Frequency associated with orbit of Toutatis (asteroid) [MPT]

304.0 - Useful on headaches (medium=pad); sedation and pain relief (medium=tube) [JB+KFL] ; (useful for) blood pressure, (and with) stiff muscles (KFL); Frequency associated with Potassium (mineral nutrient) (Note=D#) [BH]

310.7 - Frequency associated with spin of Neptune (Note=Eb) [BH2]

315.0 - Diaphragm Chakra (10:1) (Note=Eb) [BH3]

315.8 - Frequency associated with Brain (Note=Eb) [BH1]

317.83 - Frequency associated with Liver (Note=Eb) [BH1][BH4]

319.88 - Frequency associated with Kidney (Note=Eb) [BH1][BH4]

320.0 - Solar Plexus Chakra (10:1) (Note=Eb) [BH3] [MWH]; Frequency associated with Calcium (mineral nutrient) (Note=E or Eb) [BH]

321.9 - Frequency associated with blood. (Note=E or Eb) [BH1][BH4]

324.0 - Frequency associated with muscles. (Note=E) [BH1][BH4]

329.0 Associated With Nasal Passages (Effects=breathing, taste) (higher octave of 10.3 HZ) [TOS]; Associated with stomach (Effects=Emotional Acceptance) (higher octave of 5.14 HZ) [TOS]

330.0 Used to treat allergies in conjunction with 3 HZ [RS]

333.0 (used on) sinus infection/head cold [RS]

332.8 - Frequency associated with orbit of Sun (Note=E) [BH2]

When [BH2] says the "orbit of the sun", I believe she means how long it would take an imaginary planet to orbit around the sun's outer boundary [circumference]. This is how [HC/planetware] made this calculation - the period is then lowered a few octaves to get it into the audible sound range. That's how [HC/planetware] does most of its calculations, and probably how [BH] does it as well. [HC/planetware], when lowering [or in the case of planets raising] the octave, seems to gun for lower tones than [BH] does. The [HC/planetware] tones would be a little "bassier". Which is probably why the frequencies of all these astronomical phenomena that [HC/planetware] gives doesn't line up with the frequencies that [BH] gives.

336.0 - Frequency associated with Molybdenum (mineral nutrient) [BH]

341.0 - Heart Chakra (1:12) (Note=F) [BH3] [MWH]

[MWH] had the Heart Chakra at 341.3, if you want to nitpick.

342.0 - Associated with ears (Effects=hearing, formal concepts) (higher octave of 13.8 HZ) [TOS]; Associated with lungs (Effects=Oxygen, Heat) (higher octave of

5.35 HZ) [TOS]

352.0 - Frequency associated with bladder. (Note=F) [BH1][BH4]; Thymus Chakra (11:1) (Note=F#) [BH3]

There seems to be a discrepancy here as to which note this frequency is. [BH] cites both F and F#. [MPT]

360.0 - The "Balance Frequency" - brings sensations of joy and healing / derived from the Golden Section / brings balance to health / (per NASA astronauts) the Earth creates a 360 HZ tone in space.) [EI]

367.0 - (used on) sinus infection/head cold [RS]

367.2 - Frequency associated with orbit of Jupiter (Note=F#) [BH2]

368.09 - Frequency associated with orbit of Apollo (asteroid) [MPT]

372.0 - "unknown" Chakra (1:11) (Note=G#) (Earth Spin 378) [BH3]

375.70 - Frequency associated with the orbit of Eros (asteroid) [MPT]

378.5 - Frequency associated with spin of Earth. (Note=F#) [BH2]

380.96 - Frequency associated with orbit of Ida (asteroid) [MPT]

384.0 - "Gurdjieff vibration associated with root chakra. Sixth harmonic of six, center of the brainwave spectrum." [RP]; Throat Chakra (12:1) (Note=G) [BH3][MWH]; Frequency associated with Chromium (mineral nutrient) (Note=G?) [BH]

389.4 - Frequency associated with spin of Mars. (Note=G) [BH2]

393.0 - Associated with eyes (Effects=Visualization) (higher octave of 12.3) [TOS]; Associated with heart (Effects=love,warmth) (higher octave of 6.15) [TOS]

393.34 - Frequency associated with orbit of Pallas (asteroid) [MPT]

394.76 - Frequency associated with orbit of Ceres (asteroid) [MPT]

396 - G (musical note) [PL]; "Liberating Guilt and Fear"/Solfeggio Frequency 'UT' [SE]

400 Seems to decongest [KFL]; Frequency associated with Manganese (mineral nutrient) (Note=G or G#) [BH]

\*\*405 - Violet [PL] - (!!!) See Glossary entry "COLOR"

408.7 - Frequency associated with orbit of Juno (asteroid) [MPT]

409.1 - Frequency associated with spin of Venus (Note=G#) [BH2]

410.0 - "unknown" Chakra (1:10) (Note=Ab) (Venus Spin 409) [BH3]

414.7 - Frequency associated with orbit of Uranus (Note=G#) [BH2]

416.0 - Psychic Center Chakra (13:1) (Note=Ab) (Uranus Orbit 415) [BH3];

Frequency associated with Iron (mineral nutrient) (Note=Ab) [BH]

417 - "Undoing Situations and Facilitating Change"/Solfeggio Frequency 'Re'  
[SE]

418.3 - Frequency associated with bones (Note=Ab) [BH1][BH4]

420.82 - Moon: love, sensitivity, creativity, femininity, anima

421.3 - Frequency associated with orbit of moon (Note=Ab) [BH2]; Also  
associated with spin of Mercury, but here, she lists the Note as "A" [BH2].

422.8 - Frequency associated with orbit of Neptune (Note=Ab) [BH2]

424.0 - (used on) Fatigue (medium=pad) [JB]; Frequency associated with Iodine  
(mineral nutrient) (Note=Ab) [BH]

426.7 - Brow Chakra (Note=A) [MWH]

[MWH] calls this A, but it's flatter than the A of Western Music at 440 HZ. One  
could justifiably call it Ab. It's probably closer to Ab than it is to A.

430.8 - Frequency associated with spin of Uranus (Note=Ab) [BH2]

\*\*438 - Indigo [PL?] (!!!) - See Glossary entry "COLOR"

439.0 - Crown Chakra (Note=A? B?) [MWH]

For the modern diatonic scale, this would be an A note. [MWH] calls it a B note  
on their website. I'm not sure if they're perhaps basing this on some older scale.  
The frequencies that notes exist at have changed over the years.

440 - A (musical note) [PL?] ; Associated with Frontal Lobes (Effects=the seventh  
sense, final decision) (higher octave of 13.8) [TOS]; Associated with collarbones  
(Effects=vitality, overall balance, stability) (higher octave of 6.88 HZ) [TOS]



441.0 - The King's Chamber Frequency - acts towards preservation and equilibrium [EI]

Per [EI]'s website, "Play a 441 HZ tone in a chaotic room and people will find themselves mellowing down." I -dare- somebody to actually test this and see if it holds any water.

442.0 - Frequency associated with orbit of Venus. (Note=A) [BH2]

448.0 - Third Eye Chakra (14:1) (Note=A) [BH3]

445.0 - ["unknown"] Chakra (1:9) (Note=Bb) (Venus Orbit 442) [BH3]

That's what [BH] put. "unknown" [MPT]

455.4 - Frequency associated with spin of Saturn (Note=A#) [BH2]

456.0 - (used on) sinusitis/sinus infection/head cold [RS]

461.67 - Frequency associated with orbit of Vesta (asteroid) [MPT]

464.0 - Frequency associated with Copper (mineral nutrient) (Note=Bb) [BH]; (used on) sinus infections/head colds w/ 728hz,784hz & 880hz [RS]

\*\*473 - Blue [PL?] (!!!) - See Glossary entry "COLOR"

473.9 - Frequency associated with spin of Jupiter (Note=Bb) [BH2]

480 - Crown Chakra (15 : 1) (Note=B) [BH3]; Frequency associated with Phosphorous & Zinc (mineral nutrients) (Note=B) [BH]

486.2 - Frequency associated with spin of Pluto (Note=B) [BH2]

492.0 - Frequency associated with Spleen (Note=B) [BH4]; Associated with Cortex (Effects=intelligence) (higher octave of 15.4 HZ) [TOS]

492.8 - Frequency associated with Adrenals (Note=B) [BH1]; Associated with Adrenals, Thyroid & Parathyroid [BH4]

493.00 - Frequency associated with the orbit of Gaspra (asteroid) [MPT]

495 - B (musical note) [PL?]

495.25 - Frequency associated with orbit of Castalia (asteroid) [MPT]

497.1 - Frequency associated with spin of Sun. (Note=B) [BH2]

500.0 - (used to treat) Anthrax (medium=tube) [JB]

Disclaimer!! - If you legitly think you have anthrax, do NOT rely on my stupid frequency chart. Go see a doctor. However, if you do want to tinker around, this frequency was used as an EM field, not a sound. I'm not sure if it would work as a sound. Use at your own risk. (That goes for the other anthrax/smallpox frequencies too.)

520.0 - (used on) Headaches (medium=pad) [JB]

522.0 - (used on) sinus infection/head cold [RS]

526 - Associated with top of head (Effects=spirit, liberation, transcendence) (higher octave of 16.4 HZ) [TOS] ; Associated with mouth (Effects=speech, creativity) (higher octave of 8.22 HZ) [TOS]

\*\*527 - Green [PL?] - (!!!) See Glossary Entry "COLOR"

528 - C (musical note) [PL?]; "Transformation and Miracles (DNA Repair)"/Solfeggio Frequency 'MI' [SE]; "Used by genetic scientists to mend DNA/strengthens cell wall to boost immunity" [EI]

542 - Bio-energetic frequency for Variolinum (i.e. smallpox vaccine). See disclaimer for 500 HZ. [RS]

569 - Bio-energetic frequency for Variolinum (i.e. smallpox vaccine). See disclaimer for 500 HZ. [RS]

\*\*580 - Yellow [PL?] - (!!!) See Glossary Entry "COLOR"

586.0 - Associated with Circulation & Sex (Note=C#) [BH4]

588.0 - Associated with the upper lip (Effects=emotions, conflict resolution) (higher octave of 9.19 HZ)[TOS]

594 - D (musical note) [PL?]

\*\*597 - Orange [PL?] - (!!!) See Glossary Entry "COLOR"

620 - Keely Frequency (use with 630 and 12000) [TB]

630 - Keely Frequency (use with 620 & 12000) [TB]

633 - Bio-energetic frequency for Anthracinum (i.e. anthrax vaccine). See

disclaimer for 500 HZ before even playing with this. [RS]

639 - "Connecting/Relationships" / Solfeggio Frequency 'FA' [SE]

658 - Associated With Nasal Passages (Effects=breathing, taste) (higher octave of 10.3 HZ) [TOS]

660 - E (musical note) [PL?]

664 - (used for) Fatigue (medium=pad) [JB]

685 - Associated with ears (Effects=hearing, formal concepts) (higher octave of 13.8 HZ) [TOS]

\*\*700 - Red [PL?] - (!!!) See Glossary Entry "COLOR"

704 - F (musical note) [PL?]

727 (used on) Allergies, Sinusitis [RS]; Commonly used "cure-all" Rife frequency [CR]

728 - (used on) sinus infections/head colds w/ 784hz,880hz & 464hz. [RS]

741 - "Awakening Intuition" / Solfeggio Frequency 'SOL' [SE]

784 -(used on) sinus infections/head colds w/ 728hz,880hz & 464hz. [RS]

787 - Associated with eyes (Effects=Visualization) (higher octave of 12.3) [TOS]; (used to treat) Allergies, Sinusitis [RS]; Commonly used "cure-all" Rife frequency [CR]

800 - Commonly used "cure-all" Rife Frequency [CR]

802 - (used on) sinusitis with 1550 HZ; (used on) sinus infection/head colds [RS]

820 - (used on) sinus infection/head colds [RS]

832 - Bio-energetic frequency for Variolinum (i.e. smallpox vaccine). See disclaimer for 500 HZ. [RS]

852 - "Returning To Spiritual Order" / Solfeggio Frequency 'LA' [SE]

880 - Associated with Frontal Lobes (Effects=the seventh sense, final decision) (higher octave of 13.8) [TOS]; (used on) Allergies, Sinusitis [RS]; (used on) sinus infections/head colds w/ 728hz,784hz & 464hz. [RS]; Commonly used "cure-all" Rife Frequency [CR]

952 - (used on) sinus infection/head colds [RS]

965 - Relaxes muscles, especially those of the neck [KFL]

984 - Associated with Cortex (Effects=intelligence) (higher octave of 15.4) [TOS]

1000 - Cerebral neurons

1052 - Associated with top of head (Effects=spirit, liberation, transcendence) (higher octave of 16.4 HZ) [TOS]

1500 - (used on) sinus infection/head colds [RS]

1550 - (used on) sinusitis with 802 HZ, (used on) sinus infections/head colds [RS];

1552 - (used on) eye disorders [KFL]

1600 - (used on) eye disorders [ESR]

2025 - Proton Precession/Water Resonance [TB]

2675 - "The Crystal Resonator". A subharmonic of the frequency of quartz crystal. "extremely effective for charging and clearing quartz crystals .. useful for clearing and balancing of their own energies. Some claim it energize crystals in the brain. Others say that it activates aspects of the auric field.  
" (medium=sound/tuning fork) [JG]

3222 - Bio-energetic frequency for Variolinum (i.e. smallpox vaccine). See disclaimer for 500 HZ. [RS]

3040 - Use for pain along with 95 HZ [ESR]

4186 - highest note on a piano [MP2]

4400 - (used on) sinus infections/head colds - try scanning between 4384 & 4416 by intervals of 8 HZ. [RS]

5000-8000 HZ - recharge "brain batteries" most rapidly. Fastest recharge at 8000 HZ. "The anxiety-easing, memory-expanding 60-beat tempo creates easy communication with the subconscious mind." [PSI]

5000 - Commonly used "cure-all" Rife frequency [TB+CR]; (used on) allergies, sinus infections/head colds - short use only -- long exposures destroy red blood cells. [RS/KFL]

9999 - General vitality & energy [KFL]

10,000 - Commonly used "cure-all" Rife frequency [TB+CR]; (used to treat alcoholism, allergies, headaches [RS])

12,000 HZ - Keely Frequency (use with 620 HZ & 630 HZ) [TB]

16,000 - 20,000 - Upper range for normal hearing [MP2]

23,000 up - Hypersonic Sounds [above human hearing]

38000 - 40000 HZ - Magic Window [EX via MM+TB]

42800 HZ - Aetheric dissociation/water resonance (water -> aetheric force) [TB]

----- Note - down from this point are KHZ [kilohertz] values, not HZ values

150-160 KHZ - Magic Window [EX via MM+TB]

180 KHZ - Ferromagnetism [TB]

----- Note - down from this point are MHZ [megahertz?] values, not HZ values

1.1-1.3 MHZ - Magic Window [EX via MM+TB]

388 MHZ - Alleged to cause damage/disruption to humans [TB]

----- Note - down from this point are GHZ [gigahertz?] values, not HZ values

1.057 GHZ - Magic Window [EX via MM+TB]

----- Note - down from this point are PHZ [Petahertz] values, not HZ values (1 PHZ = 1,000,000,000,000,000 HZ.)

10 PHZ - Magic Window in the near ultra-violet range [EX via MM+TB]; "life energy" frequency [EX via MM]

