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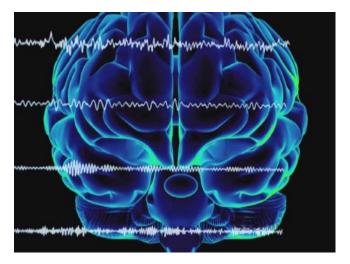
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# UNDERSTANDING YOUR BRAINWAVES by Jeffrey L. Fannin, Ph.D.

## 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 peoples 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 brainwaye 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 increase theta you your brainwaves and delta your 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 with the subconscious mind. Advanced spiritual gurus have considered the slowest 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 agereversal 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.

Delta brainwaves are not only abundant in those who are in deep meditation, but they are also abundant in new born infants, young children, people with A.D.D. or A.D.H.D., people who have had near death experiences, or people who have experienced head injuries.

## THE BENEFITS OF INCREASING THETA BRAINWAVES

The Paranormal- No matter what you may think about psychics or the world of the paranormal or unexplainable, there are people who are so relaxing in both mind and body that they have the power to channel the unknown by communicating with the deceased or be clairvoyant enough to receive information about your future. There is a lot of other unexplainable phenomenon as well. Have you ever-experienced physical pain that arose for no reason whatsoever, like headaches or migraines? Other people have reoccurring and traumatizing nightmares night after night for no apparent reason. Is there a way to eliminate these stress reactors or are they here for good?

Sleep and Dreaming- Theta brain waves are slow and relaxing brainwaves that are usually associated with us when we sleep and are dreaming. Located in the right hemisphere of the brain, they usually arise when we are dreaming, sleepy, emotional, relaxed or daydreaming. Although we all possess theta brain waves, they are most commonly accessible for people that struggle with ADD, or those that dream in a very relaxed state. Artists are known to have frequent theta brain waves as well as any other highly creative individual. Whenever we are really and truly relaxed, dreaming in a deep slumber or creatively thinking, we may be utilizing theta brain waves. When we are consciously awake, our brain waves are going at 13-40 Hz, which is known as Beta brain waves. When we are mediation or in a deep relaxed state, our Alpha brain waves measure at 7-13 Hz. However, when we are dreaming, our Theta brain waves measure out at 4-7 Hz, which accounts for a deep

relaxation that no other level of our brain waves can match. This accounts for many benefits for both of mind and body.

Musicians, sculptors and artists - Since theta brain waves operate at a much slower rate, there are many benefits to our emotional state of mind. It's unlikely that many adults will experience theta brain waves during their waking hours, but many children two and under experience it on an ongoing basis. Children have the ability to feel relaxed at all times (except when they cry) but as adults, our brain is usually experiencing alpha or beta brain waves. When we sleep and are totally relaxed, we can easily experience theta brain waves. Musicians, sculptors and artists of many genres are able to experience more theta brain waves than other individuals. This is because they tap into theta brain waves as a way to become creative when there 'artistic juices' have run out.

Help for Business Professionals - Since theta brain waves are considered fast brain activity, they offer many benefits you can utilize in the workplace. The common beta brain wave pattern is that it can block people from getting past conflicts and finding the appropriate solution. Theta brain waves can help you solve your problems with an extra amount of problem solving ability. This can help writer's overcome 'writer's block' or help business professional's move past the problem at hand and see the larger picture more clearly. Theta brain waves can also contribute to lowering the stress level overall. There's a good chance that for anyone that has a large amount of theta brain waves ongoing as they move through their day and night, they experience less stress and better coping abilities for when they do have a stressful situation. Theta brain waves make it easier for individuals to have less anxiety and neurosis overall. There's no question here: learning language as we become older is not as easy as it once was when we were children. Although there are many memory ticks available, part of the difficulty to transform our memory so that we can learn language quickly has to do with our brain waves. What is blocking us from retaining information more thoroughly and easily as we age? Since theta brain waves are so commonly found in children, there is strong correlation between

the presence of theta brain waves and learning language and language development. When we have theta brain waves in our consciousness as an adult, our ability to learn language easily is possible. Theta brain waves can also explain what connects our physical and spiritual selves. If you've ever wondered why some people have a stronger spiritual connection than others, it could be due to theta brain waves. This type of brain activity has been suggested to improve spiritual awareness and insight. Theta brain waves have also been thought to improve a person's ability to have ESP and be receptive to paranormal activity.

## **Difficulty in Concentrating -**

So, with as many benefits as theta brain waves can create for someone, what could possibly be the drawback? People with ADD have trouble focusing. Attention Deficit Disorder creates a difficulty to concentrate on



one thing for too long, and the contribution of theta brain waves can make it increasingly difficult to focus. Another downside of theta brain waves can also produce feelings of depression until you move into the beta or alpha range.

Boredom is a common feeling experienced with theta brain waves; however, if you experience boredom or become uninvolved with life's usual activities for too long, you may want to think about contacting your doctor.

**Depression** - is quite common with people that have large amounts of theta brain waves, and if this is the case with you, it's important to be vey cautious about symptoms you exhibit. For example, if you have a loss of appetite, become highly impulsive or stop finding joy with the activities you normally enjoy, consult a professional. However, there are so many benefits, that for many people, it's worth improving the amount of theta brain waves you currently have. Playing video games

can shut down the beta brain waves and switch your brain to a visual type of thinking which can produce a creative, theta activity on a regular basis. Meditation can drastically help to lower your brain waves, especially when done on a regular basis. It doesn't matter whether you meditate, play video games or indulge in more artistic activities to increase your theta brain wave activity. All contributes to more productivity, creativity and the improvement of your memory.

## THE BENEFITS OF INCREASING ALPHA BRAIN WAVES

**Deep Relaxation of Body and Mind** – Your stresses and worries drift away when you enter the alpha brainwave state. Tension and nervousness disappear as your brain's thought process is calmed down; your mind becomes clearer.

Higher Levels of Creativity – Alpha brainwave levels are found to be much higher in artists, musicians and creative thinkers. Creative thinkers also tend to be those who go on to become world famous entrepreneurs, as they are better equipped at solving life's problems and helping others. Right now, employers are looking for new and innovative ideas to help them survive in this economy. Those who have the entrepreneurial edge over others are making vast fortunes from the wealth of opportunities that exist to the creative alpha-minders!

Improved Problem Solving Abilities – When you have too much beta activity in your brain, your ability to problem solve shuts right down. Stress causes clutter in your thought process. The solution is to produce more alpha waves. If you ever get writer's block or get stuck on an important task, then getting that "aha" moment of creative inspiration is possible when you learn how to switch on your alpha mind and get back into your state of "flow."

**Improved Mood and Stability of Emotions** – Having more alpha brainwaves usually indicates more positive, stable and balanced emotions. This means you can cope better with stress and keep calm in tough situations. Irritable, anxious and over

sensitive people tend to spend most of their time in a beta state, and can usually greatly improve their minds by increasing their alpha brainwaves without resorting to taking drugs, excessive alcohol and other bad habits.



## Performance and Getting In the

"Zone" – the alpha brainwave state
is associated with "peak
performance" and players who get
"in the zone" perform best when
they have less beta brainwaves
interfering with their peak, alpha
state of mind. Studies on
professional sports players have
shown they have a surge in alpha
brainwaves in the left side of their
brain just before making a successful

shot or playing decision. Those who failed tend to have a flood of beta brainwaves in their left side of their brains instead. It has been shown by experiments like these that "over thinking" (beta) or" under thinking" (theta) have a negative effect on game play, but being in an alpha brainwave state is the perfect state for high performance.

**Super learning" and "Genius states"** – learning new skills, enhanced memory and genius-like abilities are found in those who spend their time mostly in an alpha brainwave state. This is because the tasks associated with those abilities require less overall effort to accomplish and the ability to retain large amounts of information is enhanced.

**Enhanced Immune System** – Long-term stress and tension have a negative impact on your immune system and can even shut it down completely in extreme cases, due to

the excessive production of cortisol and adrenaline. When you are in an alpha brainwave state, you are in a relaxed state where your immune system is allowed to work at its best. The "feel good" effect of alpha brainwaves leads to the production of happy and well-functioning cells in your body, which provides a healthy and efficient immune system ready to protect you from any disease.

**Levels of "Serotonin"** – Serotonin is released more during alpha brainwave states. Serotonin levels are associated with your moods and low serotonin levels are linked to depression and other neurological disorders, such as anxiety and panic attacks.

## **BENEFITS OF INCREASING BETA BRAINWAVES**

**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  $21^{\rm st}$  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 that 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** –Too much beta activity may cause you to feel afraid or have thoughts of fear towards things that you are usually calm. 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 highbeta (25-30 Hz) 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.

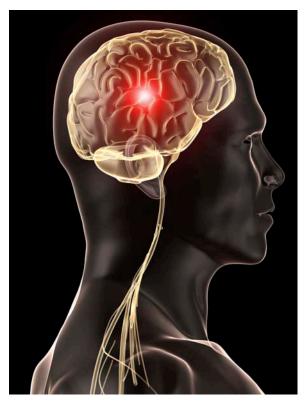
**Unwanted thoughts** – Beta brainwaves can be a source of unwanted or anxious thoughts. Too much beta activity can cause one to experience a mild form of obsessive-compulsive disorder. Rapid, random thoughts that are beyond control have potential to haunt the person that is high in beta.

**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! Look at "how to boost your alpha brain wave" to help you curb and hopefully eliminate your addictions.

## **BENEFITS OF INCREASING GAMMA**

**The Brain's Optimal Frequency** - 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 – 200+ 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.

Gamma Present in Awake State and During Active REM - 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). Gamma brainwaves resonate around 40 Hz and are associated with the brain function that 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 the Harmonizing Frequency** - for example when you are observing an object, its color, 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 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 Hyper Gamma. 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.

Epsilon and Lambda Brainwaves - 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 heartbeat, respiration or pulse. Hyper Gamma 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 subzero 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).

**Gamma in Sensory Stimuli** - Gamma rhythms occur in sensory stimuli. In humans and other mammals following sensory stimuli there is an increase in Gamma activity. They often occur in brief runs in these responses. Initially researchers found 50-60

Hz in the olfactory bulb in the brain. 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 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 (*In vivo* Latin for "within the living," is experimentation using a whole, living organism as opposed to a partial or dead organism, or an *in vitro* ("within the glass", i.e., in a test tube or petri dish) as a controlled environment, especially during exploration and research. In humans the auditory response includes brief "40 Hz transient responses" which increase when the subject pays attention and which disappear with loss of consciousness during anesthesia.

Gamma Rhythms Can Be Very Widespread - Repetitive auditory stimulation at  $\sim \! 40$  Hz generates a large "40 Hz steady state response". MEG (magnetoencephalography) recordings in humans 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 organized to sweep across the whole brain, perhaps providing "temporal binding .... into a single cognitive experience".

## PROBLEMS ASSOCIATED WITH EXCESSIVE 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 recognized 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 brains initial reactions to an increased gamma brainwave and perception of reality.

## GAMMA BRAINWAVE ACTIVITY IS PRESENT IN RAPID-EYE MOVEMENT

(R.E.M.) Sleep and is 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.

Self-Hypnosis - 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.