## R The Effect of our Thoughts on our Genes

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There are so many different factors that affect our regulation of gene expression. However, can our own thoughts be considered as one of those factors?





already discovered that the creation can occur only if there is enough space between molecules. This is the same with our mind and for our thoughts. Even for artists, to create a fabulous art form, painting or any other valuable art pieces, it requires calmness and peace in his or her mind to

Do you have any idea how many thoughts we have in one day? We have approximately 6.200 thoughts in one day and almost 48.6 thoughts per minute. Many of them are subconsciously repeating themselves while we are not even aware of them. We do not pay much attention to our thoughts, feelings, and emotions during our daily lives. Indeed, when they first come to our mind, we stick to them and even further, we think that we are that thought or that feeling or that emotion that limits our full potential and our whole capacities. That is why we should be aware of our thoughts, emotions and our feelings. Because since

concentrate and create, which generally happens alpha brainwaves (8-12 Hz.). Alpha brainwave is reached while we are relaxed, when we are meditating or when we close our eyes. These brainwaves are slower and larger. However, beta brainwaves are much smaller and faster waves. It occurs while we have intellectual activities in our daily activities and when our focus is outside.

We also can say that this state is related to alertness. Some other brainwaves, such as theta brainwave (4-7 Hz), are about a spacey state of mind and happen when we dream. It is a very relaxed state, and the brainwaves are very slow down here. The other one is the delta brainwave (1-3 Hz) is the smallest one that is observed while we are in very deep sleep. All those different brainwaves are related to a different state of mind and different awareness state. The importance of these frequencies is that the more we stay in alpha or theta brainwave or more relaxed brainwave, we can be more productive, creative, energetic, have a clearer mind, and heal faster. There are so many different articles and researches showing that meditation helps to decrease and release anxiety,



cure depression, and change many psychological cases. So what about physical changes? In those experiments, there are so many different types of meditators who are expert at meditating, and they can remain at alpha and even theta brainwave state for many hours. The magic of this event is that the more they spend more time in those state, it has been observed that cells started to heal and cure themselves. Because according to many doctors, the body already knows how to heal itself, but there is only one thing required for the body to heal itself, and it is the space. The space where there is no more any thought, feeling or emotion which is beyond the mind. So all those studies claim that awareness, willingness and practice, and thoughts can heal our body and create a change in our cells by our very choice, awareness, willingness and practice, and thoughts. So what about our genes? Is it possible to create a change in our gene expression by changing our thoughts?

Gene expression is a complex mechanism that involves transcription and translation, which is protein synthesis. We have so many different genes that express different proteins in our human body, and there are so many different factors that affect this gene expression process, such as particular proteins, methylation, acetylation and other chemical substances, etc. Lately, scientists started to figure out that there are some epigenetic factors as well which causes changes in gene expressions. Researchers have found that specific brainwaves and our thoughts impact this gene expression process, and this mechanism totally can change the conversion of genes into proteins.

It was the first time to tap in human brainwaves and allow it to engage with gene network systems and observe how it regulates this expression. It was a clear finding that we should be careful what we think since each thought, emotion and sense has a different frequency and different range, and these different frequencies and brainwaves have different effects on our genes. The experiment was carried out by using a particular headset system that has sensors recording brainwaves. These recorded brainwaves

> were transferred to a generator that generates an electromagnetic field that supplies an implant. When the experimenter starts focusing by doing a special concentration exercise or other words, meditation starts to emit particular brainwaves. These brainwaves are transferred to a generator, and this generator converts them into electromagnetic fields with an implant so that they can get a signal, and a light is turned on

as infrared range and illuminates the place where cells are cultured. They had found that when this light became on and activated, the cultured cells started to produce the desired proteins. This experiment proves that our thought's brainwaves and electromagnetic field impact gene expression and convert our genes into a protein. That is why we should be more aware of our thoughts and the electromagnetic field that we are emitting each moment, especially while having 6.200 thoughts in one day.