

## Have you Wondered Why Music is so Wonderful...

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### INTRODUCTION

Have you wondered why it's always a pleasure to listen to your favourite music? No matter what your mood is, it has the power to pull you out of anything instantly. Well, here is the answer. This article discusses about the effect music has on us at genetic, cellular and neurophysiological level. Music is a type of harmonious sound, all of us would agree and sound is a form of energy we all know. More importantly, it is a form of positive energy because of its high vibration frequency. By virtue of which all that resonates with that vibration starts to vibrate high, thereby increases its positive energy. That's the physics of the science behind it.

For all of us the day as we know, from time immemorial, starts with listening to the bells or aarti in the temple, gurbani in the gurudwara, carols in the church, azaan in mosque, prayer in school or home and so on, even while some of us are still asleep. Practically, irrespective of the religion we are born in or we practise, the country we live in, or language we speak and understand, we begin our day with some form of music. We ourselves do or not, we get you hear these sounds somehow, as they travel from different places around us and impact the whole community living in the area. It is amazing to observe that somehow, music naturally connects or creates an energetic network or an energy field around us without us making a conscious effort to realize that such a network exists, that too, on everyday basis. However we do consciously feel, that it helps us remain positive and calm all day.

We had radios even before we were born, which played music all day long and people would tune into different frequency bands or channels depending on their convenience and choice of music they want to hear, at leisure, while driving, at work, having meals, or even studying. Mothers sings to their children to sleep. Inevitably, no celebration or function is complete without music. All this makes music an integral part of our being to which we are free to connect to, whenever we want or feel like.

### THE PYRAMID OF EFFECT OF MUSIC

By definition any sound that gives us pleasure is music, thereby the primary effect music has on us is pleasure.

Secondary effects are increase in high vibration emotions like joy, happiness, calm, peace, etc., and reduction in low vibration emotions like stress, anxiety, anger, pain, fear, etc. (**Figure 1**). The first musical note 'Sa' has a frequency of 262 Hz (**Table 1**) and so on; thereby it helps the listener or practitioner to resonate with the corresponding high vibration emotion in the spectrum (**Figure 1**). Tertiary effect includes mental and emotional stability, and holistic wellbeing. Quaternary effect includes increase in individual vibration frequency and evolution to higher dimensions thereby spiritual advancement. We have developed a pyramid of effect of music which we present in this article in **Figure 2**. It is important to note that the flow of energy and frequency of vibration increases from the bottom of the pyramid to the top, i.e., from pleasure of listening which is the primary effect to spiritual advancement which is the quaternary effect.

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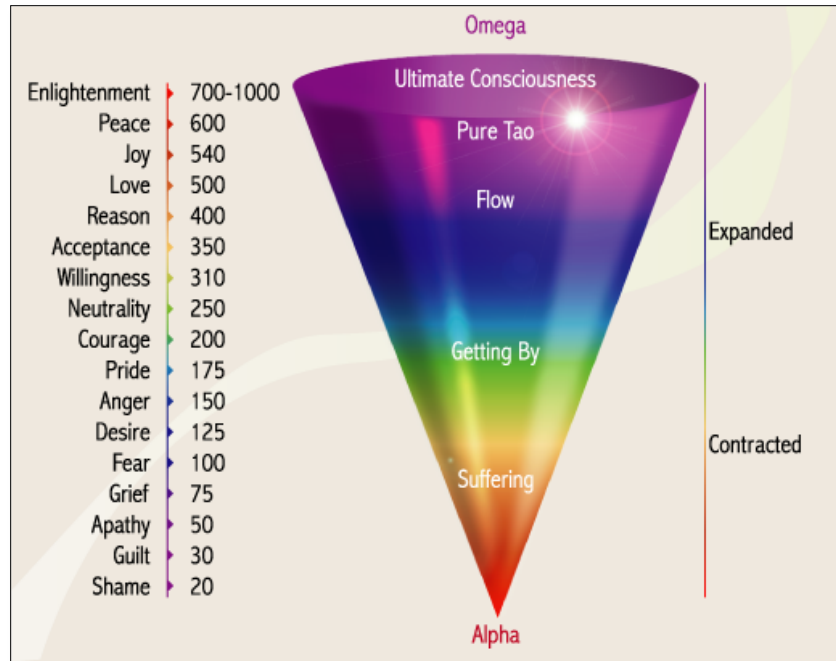


Figure 1. Frequency of vibrations of the spectrum of emotions.

Table 1. Indian musical notes with their corresponding frequencies.

Notes	Frequency (HZ)
Sa	262
re	279
Re	294
ga	314
Ga	327
ma	349
Ma	372
pa	392
dha	419
Dha	441
ni	471
N	490

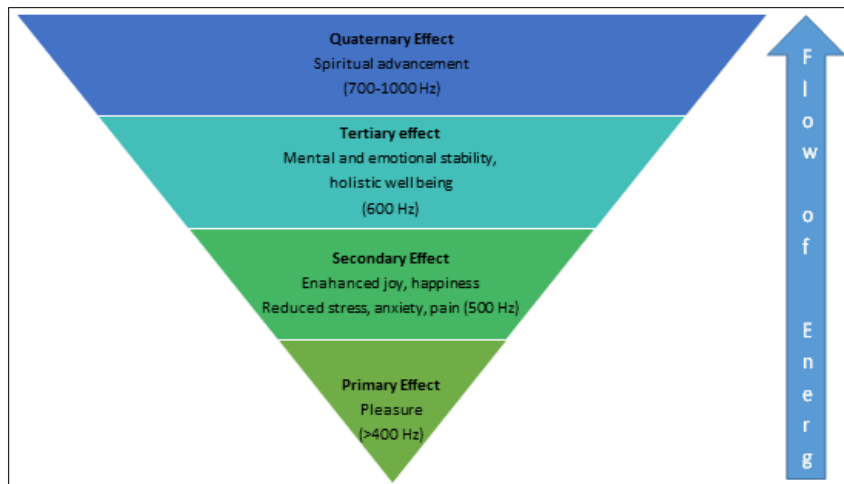


Figure 2. Govind Saraswati and Sonali Mohan’s Pyramid of the effect of music.

**OBSERVATIONS**

In our observations of behavioural psychology, regular practitioners of music show an observable positive qualitative difference in comparison to non-practitioners. They are less stressed, their anxiety levels are low, more clam and more grounded. Children who listen to or practice music regularly, have found have better learning, memory

and concentration, less aggression and better anger and stress management in comparison to the ones who don’t. Neurophysiology study shows their brain to be in Alpha (relaxed) state (Figure 3) with slower and deeper breathing, better heart rate and parasympathetic predominance. They are spiritually more advanced than other beings as they vibrate higher. Music has also been seen to improve quality of life in healthy individuals.

<b>Gamma: 30-100+Hz</b> Peak performance, flow	
<b>Beta: 12-30Hz</b> Awake, normal alert consciousness	
<b>Alpha: 8-12Hz</b> Relaxed, calm, lucid, not thinking	
<b>Theta: 4-7Hz</b> Deep relaxation and meditation, mental imagery	
<b>Delta: .1-4Hz</b> Deep, dreamless sleep	

Figure 3. Brain wave frequencies and patterns.

**DISCUSSION AND CONCLUSION**

Our brain responds to music by releasing serotonin (a monoamine neurotransmitter), which contributes to the feeling of well-being and happiness. Listening to music also releases mood enhancing chemicals like dopamine (the feel good hormone) [1], melatonins [2] and endorphins which are known to respond naturally to rewarding stimuli. Music may also boost an endocannabinoid anandamide (the molecule of bliss), body’s own antidepressant. Dr. Candace Pert has

called these neural hormones, the molecules of emotion. Pineal gland (the third eye) can be activated with 936 HZ (solfeggio frequency). A human is capable of vibrating in the range of 1520-9460 Hz as mentioned by Phyllis Kirk in his book ‘The magic of quantum’.

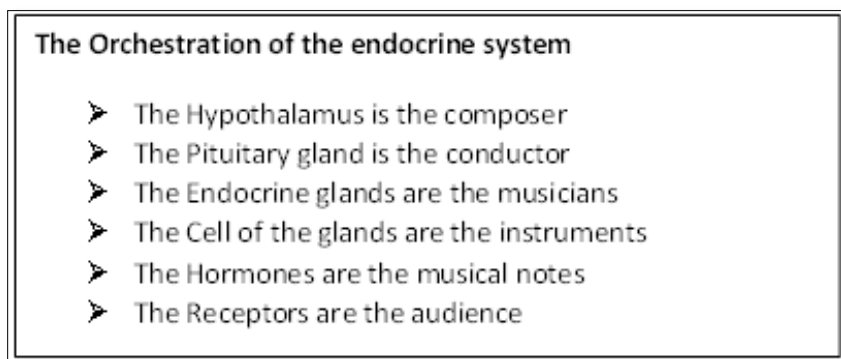
Music not only affects our brain, but also our DNA and cells. 528 Hz (Solfeggio frequency - also known as the Love frequency) is the frequency of DNA repair and has the ability to heal damaged DNA that help’s in positive

transformation and healing [3]. All bases in DNA vibrate at an average frequency of 544.2 Hz [4]. Our endocrine gland system is interestingly very much responsive to the vibration of musical notes (**Table 2**). In fact our body functions harmoniously as the orchestration of the endocrine system (**Figure 4**). Music of 528 Hz frequency also helps in regeneration of stem cells (immortal cells) and neurons in our body. All organs in our body have few stem cells which divide and differentiate whenever a damaged part of an

organ needs repair and have a characteristic vibrational spectrum [5]. In a breakthrough research, nano kicking of mesenchymal stem cells by high vibration sound differentiated stem cells into bone cells [6]. It offers a cheap way to generate bone cells, herald for benefit of orthopaedics. We conclude that, music therapy offers an effective alternative for regenerative biology and can be used for regeneration of stem cells in vitro or in our body.

**Table 2.** Response of endocrine glands to musical notes.

Glands	Notes
Pituitary	A
Thyroid	G
Thymus	F
Pancreas	Pa
Gonad	C
Adrenal	E



**Figure 4.** The orchestration of the endocrine system.

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