

# N-A-D-A-A-N-U-S-A-N-D-H-A-N-A:

## An Integral aspect of Raga Chikitsa (Indian Music Therapy)

By Dr. Rajam Shanker, Veteran Music therapist, Member in Anthrosophical society,  
serving for 40 years

Dr. Shambhavi Das, Music Therapist ([www.surdemy.com](http://www.surdemy.com))

### Abstract:

NADA-ANUSANDHANA is a well-tested method which has been taught to me by my GURU Dr. Rajam Shanker, an eminent music therapist, who served for 35+ years helping people with many chronic diseases like Autism, Dementia, Alzheimer. Indian music and music therapy are much in mobility and acceptance since the past five-six years. It's gaining much popularity especially in the fields of ASD, Dementia, and other mental disorders. The hospitals are also trying to promote and open the alternative medicine departments such as Yoga, Music therapy, Reiki etc. Therefore, it is even important for the music therapists, musicians and the musicologists to provide rational explanations based on their experiences on how Indian music heals; what is the base of Raga therapy; on what grounds is Indian music or Raga music heals the body or diseases. There are numerous studies, on which raga treats which physical issue but we, as Indian music therapy pioneers, still lack in providing the scientific or spiritual cause behind HOW Ragas heal.

In this paper, I have explained the procedure of 'Nada-Anusandhana': an ancient method in Raga therapy to activate chakras through Raga. With the help of this scientific method, I have attempted to provide the science and logistics behind how Indian Swaras effect the mind, body organs, emotions and further results in helping with the diseases. This research paper includes wellness, wisdom, stress -free outlet through Indian sounds and tunes. This paper is more inclined to the experiential archetype than the experimental one. Thus, I always encourage that first the therapist him/herself is supposed to experience the effect on the own body and mind and one should apply it on their clients through *Pranic* healing.

### Introduction

NADA-ANUSANDHANA is a well-tested method of music therapy 'Chakra-activation through Ragas' has been documented in the music scripture "*Sangeetha Kalpadhramam*" by Muthiah Bhagavathar, which is considered as the origin and crux of Indian music therapy. It comprises of numerous rational explanations regarding music wellness, sound healing and vibrations, music-wisdom with the amalgamation of spirituality.

Nada-Anusandhana is a method of vocalizing the raga along with focusing on the related chakras or our subtle energy centers. It is a process of music therapy which bridges the gap between Raga, sound and the chakras and the five elements.

How it works: Hearing is physical, and listening is psychological. Both are vital to our communication skills, establishing good relationship, socializing with everyone and learning intuitiveness. Out of the 12 cranial nerves, 10 are linked to the ear, indicating the importance of the Musical sounds to our nervous system.<sup>i</sup>

## Music Processing

As is widely known, the human body is roughly 70 per cent water. Since sound travels faster through water than through the air, sound frequency stimulation brings about total body stimulation at the cellular level. This increases cellular metabolism and perhaps brings about the mobilization of a cellular healing response (Mittal 2003).<sup>ii</sup> The Universal Sense and auditory neurologist, Seth Horowitz says that sound is in the background and often taken for granted, yet it developed to trigger deeply-held emotions.<sup>iii</sup> The brain processes music in a very complex way, using several different modes, such as perceptual, emotional, cognitive, motor and autonomic. The sound waves that make up heard music impinge on the cochlea to produce signals, which reach the brainstem and finally the auditory cortex of the brain.

In a recent electroencephalography (EEG) study on the impact of Indian classical music, especially of Hindustani ragas on individuals, Dr Shantala Hegde, assistant professor, neuropsychology unit, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, says that after listening to Hindustani ragas, 20 musically untrained subjects showed increased overall positive brain wave frequency power, higher even than that in highly relaxed meditative states.<sup>iv</sup>

## Significance of Music Wellness and Wisdom

Music has various effects on the activity of a large range of brain structures (Koelsch et al., 2009). The peripheral physiological effects of listening to music and making music are still being looked into (Koelsch et al., 2009). However, given the effects of emotion on the autonomic nervous system, endocrine system, and immune system – and the fact that music has the power to evoke and modulate emotions – Koelsch and colleagues (2009) suggest that music therapy may be used to treat disorders associated with dysfunctions and imbalances within these systems. Indian classical music is much ubiquitous genre globally as it leads to stability and the spirituality.

Researches state that music can affect the way you perceive the world around you. Higher active listening of the favorite tracks and will to sing/play emanates humility, carefreeness, and self-love within oneself. Stephen Mikes (2010) defines ‘sound therapy’ or ‘sound healing’ as an automatic process of deep inner healing initiated through the right combination of sounds that resonate within and fill the space around us. It is an arrangement of sounds in a specific order and design to invoke different vibrational states that influence our inner bodies.<sup>v</sup>

Indian music is based on the one-base note system which we refer to as the fundamental note-Sa or Shadaj. Sa is the stable note which decides the frequencies of the remaining notes. One has to set a platform Sa in Indian music which cultivates stability and the feeling of protection, belongingness. Ornamentations like slurs, glides (*Meend*), *murki* (delta of swar), *kanswar* (grace notes), jerks (Jhatka), breaks (khatka), etc., which are the essential components in ICM, modifies the existing emotion and converts it into productive ones. The basic nature of the music we listen to invariably leaves its imprint on our customs, actions, and patterns of behavior. Music imitates life and life imitates music.<sup>vi</sup>

## Raga-Chikitsa: Indian Music therapy

Indian classical music is as old as Vedic age when music played an integral role in God's worship and further to connect to the higher selves. Thus, spirituality, inner peace, mindfulness, and wisdom had always been the basis of Indian classical music. Thus, it has an immense therapeutic power. Indian music therapy is based on the concept of Raga and Rasa; therefore, it is also termed as Raga-Chikitsa. More intriguing is the relation between "raga" and "rasa." "raga" is described as "a particular arrangement of sounds in which notes, and melodic movements appear like ornaments to enchant mind."<sup>vii</sup> Ragas are the pre-defined characteristic tunes or sound templates which generates emotions and Rasa when it is musically adorned and performed for a long time. Same arrangement of notes and the melodic movements lying on one tonic note (without harmonizing with other chords) leads to the higher emotions which further results in relaxation and healing. Certain definite placement of notes resonates our particular body cells, neural circuits and create emotions in the form of sorrow, joy, repent, pity, which may be considered as the release of the toxins of negative and suppressed emotions. Music is a superb gateway of venting out different emotions and forming the new ones.

Raga Bhairava is a combination of seven sound frequencies which exactly vibrates on the seven prime chakras respectively. *Nadaanusandhana* is process of music therapy in which swara is sung and vibrated on that particular chakra with which that particular swara is associated along with focusing on that exact chakra, element, and the surrounding organs.

Many studies and experiences (of the ancient saints and musicians) suggest the positive impact of Indian music therapy on depression scores, but their lack of rigorous quality standards requires more evidence to be available. Unpublished research confirms these findings, and also points to improved cognitive as well as behavioral outcomes as well as emotional healing.

## Spiritual and Rational Benefits of AUM Rendition

OM Mantra itself is not a mere human invention, going along with particular cultures or groups. Rather, the OM Mantra (or AUM Mantra) is a symbol of deep realities that already exist. The levels of gross (A), subtle (U), and causal (M), and the states of waking (A), dreaming (U), and deep sleep (M) are definitely there, regardless of the symbolism captured in the mantra when stated as AUM Mantra.<sup>viii</sup>

- The chanting of Om drives away all worldly thoughts and removes distraction and infuses new vigor in the body.
- When you feel depressed, chant Om fifty times and you will be filled with new vigor and strength. The chanting of Om is a powerful tonic. When you chant Om, you feel you are the pure, all pervading light and consciousness.
- Those who chant Om will have a powerful, sweet voice. Whenever you take a stroll, you can chant Om. You can also sing Om in a beautiful way. The rhythmic pronunciation of Om makes the mind serene and pointed and infuses the spiritual qualifications which ensure self-realization.
- Those who do meditation of Om daily will get tremendous power. They will have luster in their eyes and faces.

It is proposed by Swami Jnaneshvara Bharti that there are many rhythms in the body and mind, both gross and subtle. The sound of OM, rising and falling, at whatever speed is comfortable and natural. It may be very fast, several cycles per second. Or it may be slower, several seconds for each cycling of OM Mantra. Or it might become extremely slow; with the mmmmm... sound continuing in the mind for much longer periods, but still pulsing at that slow rate. It is somewhat like one of these vibrations:

OMmmOMmmOMmm...

OMmmmmOMmmmmOMmmmm...

OMmmmmmmmmOMmmmmmmmmOMmm

m.<sup>ix</sup>

In Nada-anusandhana, singing the *Saptaswaras* through Om renditions is supposed to be included in the process. It is utmost essential to create the OM sounds with proper technique and intention.

## Chakras: Energy Wheels

Chakra is a Sanskrit word which means 'Wheel' or 'Wheel of light'. Chakras are said to be seven prime ones. These are the circular energies of light that regulate the physical body and await spiritual activation.<sup>x</sup> There are numerous chakras in our body, but seven prime chakras reside in the center of the body so are considered important ones. They predominantly deal with energy flow in the body and are said to be focused areas (or vortices) of high, expansive energy, within multiple locations in the body. There are thought to be 114 Chakras within the body in total, but 7 main Chakras spanning from the base of the spine to the crown of the head and are considered to follow the curvature of the spine. Connected to these Chakras, there are said to be Nadis (nerves). These Nadis are considered to be the vessels through which energy flows, from the chakras to the rest of the body.<sup>xi</sup>

Seven chakras are: *Mooladhara*, *Swadishthana*, *Manipur*, *Anahata*, *Vishudhhi*, *Agya*, and *Sahasrara* also known as (according to its location): Root chakra, Sacral, Navel (Solar), Heart, Throat Chakra, Brow chakra and Crown Chakra respectively. Each Chakra vibrates at a different frequency. The lower in the body it is, the slower the vibration; the higher in the body it is located, the faster the vibration.<sup>xii</sup> Each chakra reverberates with a particular sound frequency and corresponds to specific planes of consciousness. Therefore, each chakra is assigned to a particular musical note (swara).

## Five Elements and its Connection with Chakra-s

Subtle human body is made of the five elements *Panchatatva* or *Panchabhoota*: Earth (Bhu), Water (jal), Fire (Agni), Air (Vayu), and Space (Akash). Since each chakra is strongly associated with one of the five elements, musical notes can also be assigned to the particular element with which the chakra is connected. For instance, Mooladhara i.e., root chakra, which links to the consciousness-center of 'bhu' tatva or the earth element, is the Sa note which is the *adhaar swara* and *Mooladhara's beej-Mantra* (focusing tune) is *LAM*. Therefore, Sa or the shadja is associated with the earth element and the mooladhara as well.

This is the figure which demonstrates how *Sangeet Swar*, and the *Panchatatva* are connected to the definite chakras:

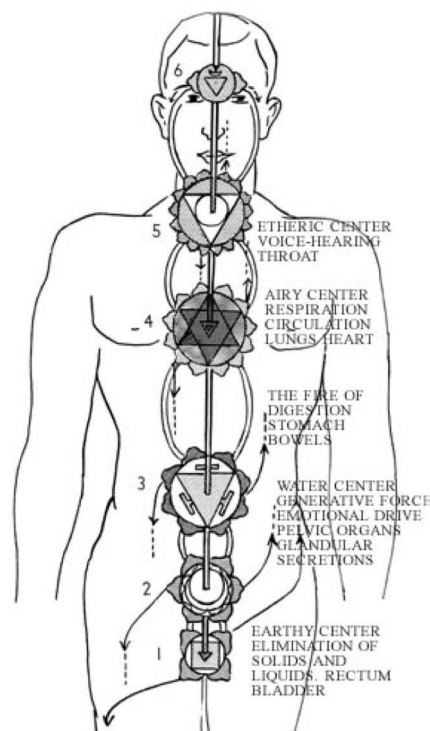


Image taken from:<sup>xiii</sup>

## What is Nada-Anusandhana?

Originally, the term Nadanusandhana is found in the Hathayoga texts that come after the *Yogasutra-s* of Patanjali. Though there are many texts in the Hathayoga tradition, *Hathayogapradipika*, a 15th CE text by *Svatmarama* is considered one of the finest works in this field. It is studied widely to understand the fundamentals of Hathayoga." According to Dr. Jayaraman Mahadevan, Director in Research Department of Krishnamacharya Yoga, Mandiram, Chennai, Nada-anusandhana is the practice for

meditation which enables mind focus through different meditative methods. This term had been used initially in the book *Hathyogapradipika* by the author *Svatmarama*. Whereas, in this paper, the term Nada-anusandhana is the same but it is associated with the practice of Indian music therapy or Raga-Chikitsa. This is a method of activating Chakras through the sound-vibrations with the swaras of Raga Bhairava.

Nada is defined as (Vacaspatya pg. 4030)

नाभेरुर्ध्वं हृदि स्थानात् मारुतः।  
प्राणसंज्ञानाकः  
नादति ब्रह्मरन्ध्रं तेना नादः प्रकीर्तिताः।

Above the navel, from the place of the heart, till *Brahma-randhra* (Suture or aperture in the crown of the head) Prana resonates. This resonance of Prana is called as Nada. Anusandhaan means discovery or research. Nada-anusandhana refers to the inner journey and discovery of self by practicing sounds. By immense and regular practices and applying appropriate breathing and voice technique, a music therapist or singer eventually manages to vocalize these notes going deep down and finally attaining the vibration in the center of the body.

Carnatic musician and neuroscientist Dr Deepti Navaratna, executive director (southern region) of the Indira Gandhi National Council for the Arts (IGNCA), and a former Harvard University professor, says that by the time Natyashastra was formalized circa 200 BCE (Natyashastra reflected contemporary thinking on this matter, in its era), “the psychological impact of certain melodic structures/rhythmic patterns was worked out to the level of being able to prescribe one-jati (raga precursor) to one rasa”.<sup>xiv</sup>

## Nada-anusandhana in Raga Chikitsa

Since we know that each chakra is assigned to a particular Swara and one of the five elements, we will be exploring which notes are assigned and why it is beneficial to sing focusing on that chakra. Raga Bhairava is an ancient Raga, which is considered as a parent raga, basic and important in ICM (Indian classical music). It is said that Lord Shiva created five ragas: Bhairava, Hindol, Megh, Deepak, and Shree. Sixth one, Kaushik was created by Goddess Parwati. Thus, Bhairava raga holds the most significant place in not only Indian music pedagogy but also and music wellbeing and healing. Raga Bhairava is said to be a good source of balancing and activating the chakras for the betterment of health.

## Interconnection of Raga, Chakra and the Panchatatvas:

Physiologically, this raga is most effective and useful in activating the chakras and balancing the five elements in the body simultaneously. If we see *Bhairava swaras*, the sequence of notes lies directly on the prime chakras:

Sa – Mooladhara – Earth

Re (Komal) – Swadishthana – Water

Ga – Manipura- Fire

Ma – Anahata – Air

Pa – Vishuddhi – Space

Dha (Komal) – Agya - Space

Ni – Sahasrara - Space

If we observe the notes in terms of the Chakras, this raga is highly prominent in *Swadishthana* (Re) and *Agya* (Dha) Chakra. *Madhyam* is the Nyasa Swar or the sustained/landing note so *Anahata chakra* can also be activated through this raga. In therapy terms, this raga proves very stimulating for the activation of the chakras and toxins reduction. By singing, playing or listening to this raga during the dawn time not only soothes your mind but scientifically, works on one's water and space elements.

## Importance of Time theory in Rendering Ragas

In general terms, human behavior and moods change in the different course of time. Scientific researches have documented that the moon, rules the flow of fluids, ocean tides, (as well as individual body fluids) and affect the unconscious mind and dreams.<sup>xv</sup> Environmental cues such as light of the moon, tides play a documented role in regulation of one mind psyche and thoughts and emotions. For instance, we might have observed that our mood, mind psyche, and reactions to different situations spontaneously change in monsoons or breezy weather. It takes just one-tenth of a second for our brains to begin to recognize emotions conveyed by vocalizations, according to researchers from McGill.<sup>xvi</sup>

Time theory or the practice of assigning times of the day or night for singing Ragas is one of the most distinguishing features of Indian music. This connection of time of the day or night, with the Raga or Raginis is based on daily cycle of changes that occur in our own body and mind which are constantly undergoing subtle changes in that different moments of the day arouse and stimulate different moods and emotions.

## Defining Raga Bhairava:

To understand the subtle healing/wellness process through ragas, it is essential to know the most important Raga in Indian classical music, which is **Raga Bhairava**, in which Nada-anusandhana method is executed. As the name indicates, this raga is nomenclated as Shiva's name: 'Bhairava'. Raga Bhairava is a Vedic age raga created by Lord Shiva, which is fully synced with the sounds of the prime seven chakras or the centered energy wheels (Unlike other ragas). In pictorial art, the raga-raginis are illustrated in

various relationships and situations. The Ragini Bhairavi as separated from Shiva (Raga Bhairava) is represented as embodiment of Shanta and Karuna Rasa, whereas, Ragini Sindhavi as a woman of jealousy, while Raga Bhairava is conceived as the image of Shiva, as peaceful and great in wisdom.<sup>xviii</sup>

Raga Bhaiarava is a dawn (*Pratahkaal*) raga which is comprised of all the swaras in sequence with Re-Rishabha and Dha-Dhaivata Komal, i.e., second and sixth note flat or diminished with remaining notes *shuddha*. Raga *Bhaiarava* is sung or played before the sunrise between 4 to 7 am when the sun is rising orange or yet to be seen. In *Ragadaari*, notes *Re* and *dha* are not *komal*, in fact they are super-diminished (*Ati-Komal*) or stand in the even lower frequencies of the *komal Re* and *komal dha* plus, highly oscillated (*Aandolit*). *Aandolit* or oscillating means *Re* and *dha* constantly touch other higher and lower surrounding frequencies before arriving to its exact location; they are rarely or never used straight (*Sapaat*) or direct. This is the most determining factor in *Bhairava*. *Komal Re* and *dha* are frequently used and sustained notes in the Raga therefore, they are the *Vadi Samvadi* of *Bhairava*. Apart from the prominence of *Dha* and *Re* swaras, *Madhyam* (*Shuddha*) too holds an important place in the raga. *Bhairava* holds *shadja-madhyam bhaav* that is, it is more prominent in the perfect fourth and base, thus *madhyam* or Swar Ma is important here. In addition, Raga Bhairava is *Mandra-Saptaka pradhaan* Raga, i.e., it revolves more around the lower and middle octaves.

## Significance of Dawn Time in Practicing Nada-Anusandhana

**Appropriateness of morning time:** Raga Bhairava is a dawn raga and it is also scientifically explained. Raga Bhairava is used to activate and balanced the chakras and regulate the five elements in our body. In addition, it is also used in releasing toxins from our body by digging out the Swadishthana area. Therefore, it is essential to vocalize this raga in the morning before sunrise. Morning (dawn) time is called '*Brahma-bela*' or '*Brahma-Muhurat*' in Hindi when the mind is fresh and extremely absorbent after the most productive and deep sleep the whole night. Dawn is the time when we experience immense silence; the atmosphere is serene and peaceful. You can become one with nature and the birds-twittering. It becomes easy to attain complete mindfulness and focus at that time. From 4 AM to 8 AM, one must invest time in highly constructive activities like Yoga, exercise, Music-practice, reading books, and avoid any emotional and wasteful thoughts as the effect persists throughout the day/days.

**Fix the health before diurnal job:** For health and wellbeing point of view, one is supposed to practice Nada-anusandhana during the dawn time as it is better to activate the chakras, balance the elements, and cleanse the body by toxins reduction through Bhairava to kick-start the proclaimed diurnal activities such as job, school, study, household with fresh and healthy thoughts. Regular practice of Nada-anusandhana may result in elongated positivity, energy, retains increased work productivity and creativity. You enter into the no fatigue, no exhaustion zone eventually practicing this healing therapy for daily 20 minutes in the morning.

**Cleanse the body before stuffing thoughts and eatables:** Aesthetically, Bhairava is a serious and serene raga as it is comprised of two minor re & dha komal notes. The interspacing between *Re-Ga* (oscillating *Ati-Komal Re* → *Shuddha Ga*) creates more heaviness and intense feel. Similarly, *Dha komal* with



the oscillating Kanswar (slur) of Shuddha Ni over it and its interspacing with Ni also relaxes the brain cells. But the good part in Bhairava notes are, apart from being a serene Raga which relaxes the mind, these same interspacing are considered energizing and vigorous. Mind and brain anyways work more strongly and with resilient after attaining relaxation and peace. Hence, Bhairava notes incorporates relaxation along with energy and alertness which is much needed during the prolonged daytime lifestyle.

## Method of Nada-Anusandhana

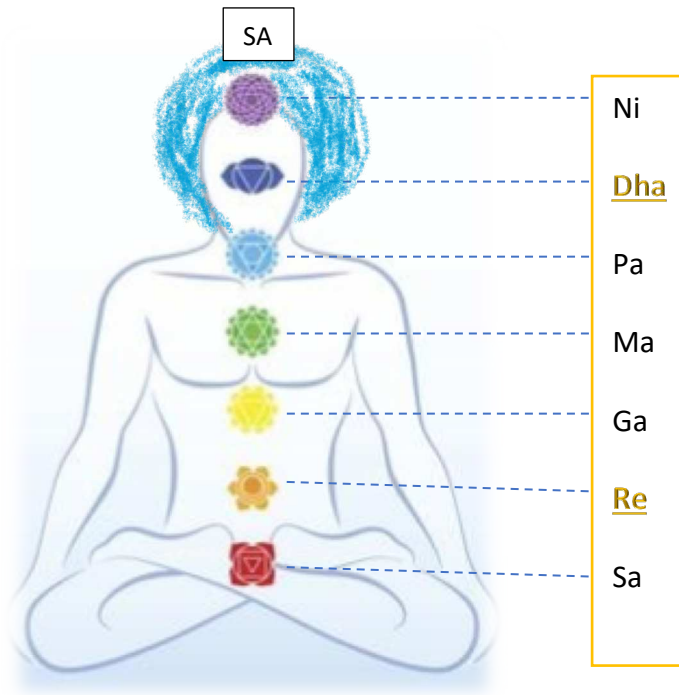
Is it essential to tune the drone on middle C-Scale as it too has a good explanation? We need to reach an octave lower to start the vocals, means the Mandra Saptaka Sa or the base Sa. In other words, one has to start from the C2 if the scale has been set on the C3. It seems difficult initially to go that deeper on the root note, but persistent practices finally ensure that sound of the lower Sa. Inhale deep with the nostrils and establish Sa by holding it there (Mandra Sa only) until your full breath limit. Try a few times and try vocalizing Om (AUM) with same note and technique: Breath deeply through nostrils (Closed mouth) and sing Om on that Sa. After doing this for 5-6 times, you will feel that the voice trembles and shakiness has been subsided. Now vocalize the basic pillars of the Saptaka to open up the voice by SA-PA-SA” (Mandra SA- Pa (P5) – Madhya Sa) and return to SA”– PA- Sa (Base). Do this with full breaths and expand your breath limit if possible. (Listen to this track)

<https://soundcloud.com/shambhavi-das-8314907/nada1-sps>

Start the Nada-Anusandhana one-by-one standing on each note starting from the Sa focusing on each chakra and related body organs, inhaling fully on every single note and completing with full exhales then return with the same descending notes as slowly as possible: Please listen to this audio: First practice with the notes or Sargam; second one is with the help of Ommmm....

<https://soundcloud.com/shambhavi-das-8314907/nada-2-srgmp>

<https://soundcloud.com/shambhavi-das-8314907/nada-3-om-srgmp>



Try same technique rendering the 'AUM' and with other vowels like EE, OO, AE, AA, HAA with the Bhairava notes. Then try the tunes in the respective Beej-mantras (seed-sounds) of the particular chakras and their associated elements, as in LAM should be in Sa focusing on *mooladhara* and Earth element, VAM in Re note on *Swadishthana* and water, RAM in Ga on *Manipur* and Fire, YAM beej-mantra belongs to *Anahata* on Ma associated with air, HAM=Pa on *Vishudhhi* and space, OM= Dha on Agya, Space, Ni has no *beej-mantra* though. Descend with the same notes with their respective beej-mantra.

Next step is: blending the two juxtaposed chakras into one fulfilled breath first using notes, followed with Omkar Nada. For instance: take a deep breath with nostrils and sing two notes Sa & Re equally dividing the breath into two till the breath is completed, followed by Ga & Ma then Pa-Dha, Ni-Sa then coming back with Sa-Ni, Dha-Pa, Ma-Ga, Re-Sa. Then blending four notes or the chakras together: S-R-G-M in one breath focusing on their respective chakras; P-D-N-S' in one breath. Repeat it through Omkar Nada. Eventually, all ascending seven notes equally divided into 4-4: SRGM with 'O' and PDNS with 'mm...' in one breath; change breath while descending SNPD- 'O', MGRS on 'mm' (closed mouth).

Blending two Chakras: <https://soundcloud.com/shambhavi-das-8314907/nada-4-sr-gm-pd>

Blending 4 in one breath: <https://soundcloud.com/shambhavi-das-8314907/nada-5-4-together>

Now establishing the union of 8 in one breath:

<https://soundcloud.com/shambhavi-das-8314907/nada-6-8-together>

## Scientific Explanations & Effects of Nada-Anusandhana

Nada-Anusandhana is a scientific process of music therapy or sound healing which plays a vital role in activation of the chakras and balancing of the *Panchabhootas* and eventually results in the better health, better, positive thoughts and overall wellbeing. Let's observe the effect step-by-step on every chakra.

*Shadaja* – (Sa- C note) or Om with Mooladhaara focus results in the vibrations and reverberation on the down body organs like one's coccygeal area. One must feel that something is pulling him down towards one's survival area. This vibration stabilizes the person and makes him/her more grounded, alleviates the Ego content, and makes one more open and flowing, as it balances the Earth element. Focus on the mooladhara also instigates the four positive petals or emotions which dwells in that chakra: Brahmanandam, Sahaj, Veeranandam, and Yoganandam.

*Komal Rishabh* (C# note) is a direct outlet for *Swadishthana* which reverberates the areas like urinary bladder, uterus, colon, rectum etc. When the Rishabh is rendered with extreme slurs and meend touching and hitting other neighboring notes too, it looks like digging or cleansing something from the body. No other raga has these extreme slurs and glides. Komal Rishabh in Raga Bhairava primely cleanse the body and release the toxins by digging and shoveling the toxins out. Kids usually urinate after a therapist apply this on them. In addition, balancing of the water element improves the water retention and increases the blood circulation. Rendition of the Rishabh on the associated Chakra energizes the organs right there. Therefore, it is said that one should not try this practice during menstruation, as bleeding might increase.

*Gandhaar* (Ga or E-note) on the Manipur Chakra is an important aspect as the gut is called the second brain, which regulates the mechanism of the physical and subtle body. Therefore, Gandhaar (Ga) note vibrates positively for Manipur. It activates the Manipur and other surrounding chakras. It regulates the fire element in the body and alleviates acidity, flatulence, anger, aggression or anything which cause fire in the body or attitude. It controls the formation of the stress hormones like cortisol and adrenaline and elevates the dopamine. Manipur and other mini chakras reside just below the navel thus, the organs like kidneys, large intestines, stomach, pancreas etc. come into the realm of healthy and elevated vibrational field.

*Madhyama* (Ma-Shuddha or F note) is the heart chakra and Ma is an extremely important note in Raga Bhairava as well. Madhyam note activates and cleanse the heart chakra and balances the air element in the body: the associated *Panchatatva*. Madhyam swar dwells on the Anahata chakra is beneficial for the breathing, effective respiration, and other breathing malfunctions. Sustenance/focus of Ma for 8-9 minutes enhances the functions of heart, lungs, diaphragm, veins, arteries etc. Ma or F note plays in a vital role for chakra activation as it has a deep connection with one's birth-cry sound. A child when born cries on the F-scale. This has been tested and verified by us in the supervision of Dr. Rajam Shanker.

*Panchama* (Pa or G-note) on the Vishuddhi chakra opens up the throat; moreover, soothes the three nadis or serpent nerves which reside on the Vishuddhi chakra: *Ida*, *Pingala*, and *Sushumna* Nadis. These Nadis are considered to be the survival seed of the subtle body. Pancham swar activates the *vishuddhi* and works on the space element. It soothes the thyroid gland, larynx, trachea and esophagus area and

transcends the vocal health. It is very essential for the musicians, politicians, Marketing experts who have to speak or sing a lot.

*Dhaivata* (Dha-Komal or G# note) activates the pituitary gland: the area between the eyebrows. Humming or Ommmkaar Nada through komal-dha on the *Agya Chakra* benefits in the better brain functioning, improved memory, retention, understanding and above all heightens focus and concentration. It is a third eye chakra which helps one meditate and attain realization with time.

*Shuddha nishaad* (Ni or B note) sits on the pineal gland that's the Sahasrara Chakra; it's also called the *Brahmarandhra* which creates wonders when activated. It's an outlet for the Kundalini Jagran (Rising of the energy) Rendered Ni on this chakra activates the outlet from where the energy rises up.

**Spirit test:** When you feel the chakra, you are feeling your spirit essence! This essence is the eternal part of you that does not die, validating the fact that we are spirit energy contained within a body.

## Acupressure Points adjoined with the Chakras and the Swaras

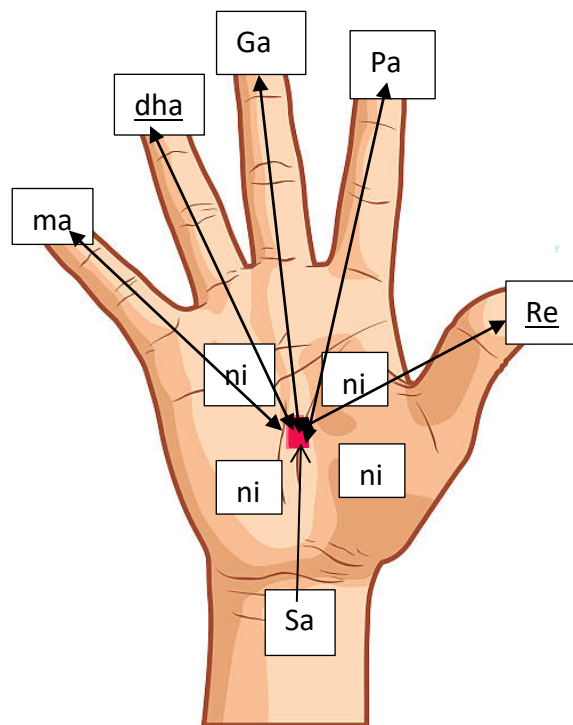
The human body contains a lot of pressure points, and some people believe that pressing on these points can affect other parts of the body and overall health. Pressure points are areas of the body that reflect the acupressure points used in traditional Chinese medicine. Traditional practitioners identified specific spots that they believed improved energy flow through the body.<sup>xviii</sup> Acupressure is an ancient healing art that uses the fingers to press key points on the surface of the skin to stimulate the body's natural self-curative abilities. When these points are pressed, they release muscular tension and promote the circulation of blood and the body's life force to aid healing. Foremost among the advantages of acupressure's healing touch is that it is safe to do on yourself and others.<sup>xix</sup>

According to Acupressure, Jin-Shin-do & Sujok systems, our hands have points to cure all the diseases & pressing them give us relief very quickly, Clap yoga is the one dimension of it. It is an old tradition to clap while singing a song or bhajan. People acclimate their feeling with clap, Clap, which represents joy, can also keep us healthy. To clap, we strike our palms with each other, forcefully, it activates those points & slowly we feel improvement in any of our diseases. We can see a good example of this yoga in temples.<sup>xx</sup>

Chakras and Panch-bhootas are also strongly associated with the pressure points in the palm. Hence, we can say that all the swaras resonate in the form of the chakras and the five elements. While applying the Nada-anusandhana method through focusing on the organs and chakras along with singing notes, we can also press the pressure points related to that particular note.

**Experiments:** We apply the pressure points on the palm along with the Nada-Anusandhana i.e. Vocal renditions of the Bhairava Notes with Mandra Shadja of C-scale and the chakra-focus, on around 50+

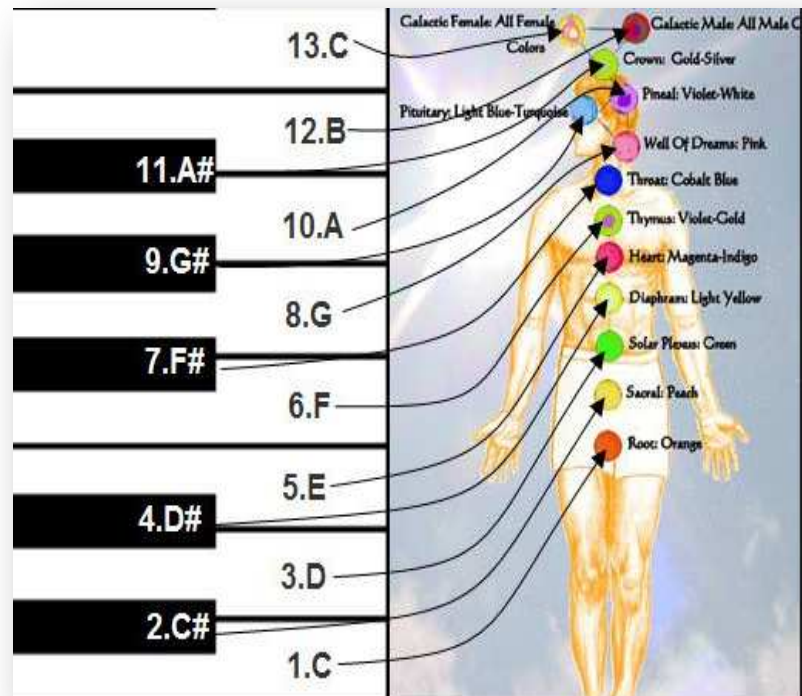
children having ASD (Autism Spectrum Disorder) issues and we came across noticeable results. After 10 minutes or so, their sitting tolerance increase, restlessness and the hyperactivity alleviate, aggression comes down; their relaxation and sleeping aspect transcend. Mostly they sleep and relax after the pressed points and wake up after 20 minutes with freshness and increased bliss and contentment. They are energetic and more than ready to learn and sing music plus prepared for other raga interventions therapies and sound healing. With time, intervention of other therapeutic ragas along with Nada-anusandhana and pressure points in the regular sessions, communication skills, speech, language, and eye contact progresses in these kids. Even the non-verbal ASD kids are seen to change drastically in their speech-abilities and interactions.



## Essentiality of C-Pitch Base note in Nada-anusandhana Practice

There is another explanation behind Nada-anusandhana should be initiated in C-Scale and starting from an octave lower. F-scale is the most significant pitch for therapy as the first cry of the fetus is in F-scale. When the tanpura is tuned in C, the perfect fourth (P4) of C is F; means F is just the madhyam (Ma-swar) from C. In other words, F-note becomes the heart chakra or P4 from the C when C-key becomes a base note. Since F is the birth-cry (fetus) sound of the baby, the heart of a person is subtly connected and attached with this F sound on heart. This is well-tested method. Therefore, C is important to set as the base note.

What we hear, is the well-known natural harmonic series into which all processes are translated which change in a continuous ratio to one another. If we take a monochord C and copy what the astral body does with the etheric body: we will count and differentiate the relationship between head and the body. To this end we divide the string into the ratios which reflect the relationship between the size of the head and the length of the body.<sup>xxi</sup>



Secondly, it is believed that lower the frequency, faster it reaches and reverberates the lower chakra i.e., mooladhaara chakra. Therefore, C set on the fourth octave and vocalized through the Mandra Sa or one octave lower initiates lower sounds which is suitable and healing for the activation of the chakras.

Last but not the least, C- scale is the easier and convenient to sing, play and harmonize as the keys are simpler and straight. Hence, it is much convenient to retain and vocalize its lower dimensions even for the non-musicians.

## Troubleshooter

Nada-Anusandhana is a method of Raga-Chikitsa which involves proper and years of intense classical music training or Riyaz. Hence, it is a process which should be done under the supervision and guidance of a music therapist, who acknowledged and researched this method with immense competence. It is important to learn, practice, meditate and create appropriate sounds of the Raga as incorrect frequencies, which may not gel with the associated with the particular chakra, may create adverse effect on the body. The main ingredients in Raga music therapy are not only the swaras in connection with the Chakras, but also the interspacing or interval between the two notes. In other words, there are exact calculated sound frequencies between the notes. The ears of a musician get sensitive to recognize the exactness with time and practice. Whereas, a non-musician may not be able to gauge that accuracy between different sound frequencies which might be used for singing and performing but inappropriate for the healing purposes. Hence, one should check that he/she does not sing/vocalize wrong notes in order to avoid any adverse

trouble or harms to the body and subtle body. There are certain steps which needs to be followed properly in order to achieve better results:

- Indian (Raga-Chikitsak) music therapist should be exceptionally trained in the Indian voice culture, Swar-abhayaas, Tala-Gyan and Raga-Gyana.
- Nada-anusandhana should be applied by and under the supervision of a music therapist.
- Breath extension, sustenance and Diaphragmatic breathing is a perquisite for a therapist and the patient as well. Thus, a therapist must train the techniques of Pranayama if the client is normal to understand and able to take. However, training of Pranayama might not be possible for the mentally disabled person like an autistic, in which case the therapist must train the mother (Who too needs counselling and guidance on chakra-balance).
- Music therapist should apply Nada-Anusandhana on him/herself first, experience the effects on the Body and mind, only then he should try on others.
- It is also applicable on the normal people and check the effects as they might explain the experiences properly.
- Raga Bhairava is an intense Raga and works more on the lower frequencies of flat-Re/dha, which is much therapeutic with slurs and glides (*Kanswar & Meend*) thus, it is essential to know and analyze the exactness and effects while vocalizing.

## Conclusion

Empirical studies on the brains of people learning Indian classical music are very few, since the focus is on healing and treatment efficacy. There are very few studies on brains that function very well. What is happening in the brains of the people who are using their brains extraordinarily well? If you study that, then you may actually be in a better place to come up with therapeutic practices for brains that might not be up to speed. Therefore, we, as the music therapists from Indian music pedagogy, try methods to authenticate and rationalize the reasoning regarding the effects of Raga-interventions on the body, mind and overall health.

According to our pedagogy in Indian music, we understand that the science and tests on music and music therapy deeply and ultimately lies in our ancient books authored by the then musical/spiritual saints, Vedic aged therapies and experiences. They did document their epics and scriptures, but some got destroyed, and some lacked the authenticity as they were based on their spiritual and wisdom-oriented experiences which gets hard for a normal people to accept without deeper essence. Moreover, those musically spiritual saints were too contented and satisfied to perceive the feeling of being credited or get patents, because of which they avoided promoting.

Nada-anusandhana or the Chakra activation method through Raga intervention which existed in the books but somehow lacked promotion and research. But after practicing, applying it on myself and others and experiencing the better health and thoughts, I immensely believe that this method is a treasure in

Indian Music therapy or Raga-chikitsa field, which may provide wings to the concreteness and logistics and may establish as a top-notch step as an alternative/holistic medicine.

## Reference:

- 
- <sup>i</sup> <http://indianmusictherapy.org.in/>
- <sup>ii</sup> Mittal, Titiksha 38, 44, 45
- <sup>iii</sup> <https://www.cbc.ca/natureofthings/features/the-psychology-of-sound>
- <sup>iv</sup> <https://economictimes.indiatimes.com/magazines/panache/neuroscience-takes-music-therapy-beyond-the-feel-good/articleshow/59402278.cms?from=mdr>
- <sup>v</sup> Performing Arts and Therapeutic Implications by Tanvi Bajaj, Swasti Shrimali Vohra, page-36
- <sup>vi</sup> Patrick Bernard- Music as Yoga, page-56, (2004- Mandala Publishing)
- <sup>vii</sup> Chakrabarty S, Nizamie SH, Akhtar S. Music therapy in rehabilitation in schizophrenia. Unpublished dissertation submitted to Ranchi University for partial fulfilment of diploma in psychological medicine degree. 2003
- <sup>viii</sup> [http://paper.ijcsns.org/07\\_book/200901/20090151.pdf](http://paper.ijcsns.org/07_book/200901/20090151.pdf)  
further  
<http://www.omsakthi.org/worship/mantra.html>
- <sup>ix</sup> [http://paper.ijcsns.org/07\\_book/200901/20090151.pdf](http://paper.ijcsns.org/07_book/200901/20090151.pdf)
- <sup>x</sup> The Subtle Body: An Encyclopaedia of Your Energetic Anatomy by Cyndi Dale, Page-242
- <sup>xi</sup> <http://powerthoughtsmeditationclub.com/the-chakras/>
- <sup>xii</sup> x page-245
- <sup>xiii</sup> <http://www.fundamentalfield.com/2011/07/the-five-elemental-chakras-of-polarity-therapy-the-negative-pole-of-the-fundamental-field/>
- <sup>xiv</sup> <https://economictimes.indiatimes.com/magazines/panache/neuroscience-takes-music-therapy-beyond-the-feel-good/articleshow/59402278.cms?from=mdr>
- <sup>xv</sup> E. Hartman, "Determining Sleep (the D state) and the Menstrual Cycle", Journal of Nervous and Mental Disease, vol. 143 (1966), pp. 406-16; E. M. Swanson and D. Foulkes, "Dream Content and the Menstrual Cycle" Journal of Nervous and Mental Disease, vol. 145 (1968), pp. 358-63.
- <sup>xvi</sup> <https://www.mcgill.ca/newsroom/channels/news/human-sounds-convey-emotions-better-words-do-257683>
- <sup>xvii</sup> Research in Sociology: Abstracts of M.A. and Ph. D. Dissertations Completed by Dharendra Narain, University of Bombay. Department of Sociology, Indian Council of Social Science Research page-12
- <sup>xviii</sup> <https://www.medicalnewstoday.com/articles/324699.php>
- <sup>xix</sup> Acupressure's Potent Points: A Guide to Self-Care for Common Ailments by Michael Reed Gach, PhD
- <sup>xx</sup> <https://www.facebook.com/notes/hanuman-fan-club/reason-behind-clapping-during-bhajan-and-aarti/727013603989613/>
- <sup>xxi</sup> ARMIN HUSEMANN- The harmony of the Human Body "Musical Laws Of Growth" Page-43