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# YOGA SUDHA

A Monthly Journal of Swami Vivekananda Yoga Prakashana

Installation of  
Bhaktiyoga  
Pitham

Pujya  
Prema  
Pandurang ji



**BHAKTI**  
Pictorial Exhibition



**BHU**

honored S-VYASA VC  
Prof. Ramachandra G Bhat







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5	Advanced-Mastering Emotions Technique	A-MEMT			10,000
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# तं विद्यात् दुःखसंयोगवियोगं योगसंज्ञितम्

# YOGA SUDHA

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# EDITORIAL



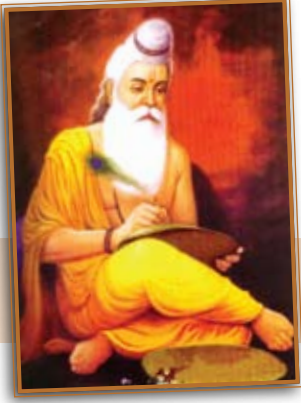
The whole creation is governed by the tri-fold law of Sṛṣṭi, Sthiti and Laya. The ever-changing creation gets fresh with new creation every moment and the old is destroyed and thrown out of the system. In our body, for example, a billion cells get created every day and a billion cells get destroyed every day. The sustaining forces keep the Sthiti or the balance. However, there will be continuous imbalances during Sthiti period in all of us as also in the macroscopic world around us. These imbalances are natural calamities as earthquakes, floods, cyclones, Tsunami, etc. In the individuals, they are diseases. They can be caused by outside or from within us. They are Anādhija or Ādhija Vyādhis. Bringing balance of the forces - Samatvam - is to restore the system to normalcy and to go back to normal health. So maintain health, it becomes necessary for us to understand these forces within and without us at all - physical, prāṇic, mental, emotional and intellectual levels. The negative and positive forces should be brought to a balance. Homeostasis in the body level, balancing of Vāta, Pitta and Kapha on one hand and Prāṇa between Idā and Piṅgaḃa, at the subtle level are mandatory. At the emotional

level, the negative emotions should be softened and positive emotions should be enhanced; downward and upward regulation of negative and positive emotions is the mandate for health. At the mind level a balance between non-active phase and active phase should be balanced; silencing the turbid mind - Manaḥ Praśamana is the key. At the intellectual level the wrong notions, ignorance has to be removed and real knowledge has to be brought in force.

The whole creation is a complex conglomerate of all these systems. Each system influences the others and there is a continual interaction of all these systems. The macro world can influence all of us as individuals and each focus can influence the macroscopic, though in a small way but as a body of billions of people, we can influence the macro substantially. Especially with mass destruction, weapons and technology induced and promoted environmental pollution we can have started global warming which in turn have devastating effects in the world where we live. Similarly our wrong life style, succumbing to the sense pleasures and excesses on all fronts have brought large scale modern NCDs to grow.

The real solution therefore is to maintain balance and that is what Yoga does. It cannot only bring health and peace; it can prevent diseases, promote positive health and lead us to immense bliss. We are marching ahead with our SDM in India and will soon launch SDM and Obesity Control program in USA (OBCOP)... To usher in a new era of Yoga and Spirituality form the era of science and technology.

■ *Dr H R Nagendra*



# ब्रह्मसूत्राणि (Brahmasūtra)

■ Prof. Ramachandra G. Bhat  
Vice Chancellor  
S-VYASA Yoga University, Bengaluru

## वैश्वानरः साधारणशब्दविशेषात् (ब्रह्मसूत्रम्-१-२-२४)

Vaiśvānaraḥ Sādhāraṇaśabdaviśeṣāt (Brahmasūtram-1-2-24)

**Meaning:** *Vaiśvanara (is Brahman) on account of the distinction qualifying the common terms ("Vaiśvanara" and "Self").*

यस्त्वेतमेवं प्रादेशमात्रमभिविमानमात्मानं वैश्वानरमुपास्ते स सर्वेषु लोकेषु सर्वेषु भूतेषु आत्मस्वन्नमति तस्य ह वा एतस्य आत्मनो वैश्वानरस्य मूर्धैव सुतेजाः चक्षुर्विश्वरूपः प्राणः पृथग्वर्त्मात्मा सन्देहो बहुलो बस्तिरेव रयिः पृथिव्येव पादावुर एव वेदिर्लोमानि बर्हिर्हृदयं गार्हपत्यो मनोऽन्वाहार्यपचन आस्यमाहवनीयः । In the Vedanta tradition meditation has very moderate role to play. Meditation plays a role of a bridge between Karma (Performance of Duties) and Jñāna (The Purest cognisance of Brahman). As it is well known Atman and Brahman are two master key words in the Upanishadic tradition. Generally Atman stands for individual soul and Brahman for the Universal. को न आत्मा किं ब्रह्म? with this interrogative sentence this particular chapter starts. The Upanishads project various images like the Sun, Vāyu (Air), Ākāśa (Ether), Water and Earth. We ordinary seekers cannot break through the ordinary mundane understandings which obstruct our smooth passages in the metaphysical world. Here in this context the very name VAIŚVĀNARA may indicate even विश्वे च ते नराः all living beings. Vaiśvānara word must be understood here in the context and in the proximity of the word Ātman. Ātman word is common to individual soul and universal soul. The quoted mantra projects this Ātman universal in nature. When for this Ātman, otherwise called Vaiśvānara, the solar region becomes the head region, earth becomes feet, the mind becomes universal fire, it cannot be an individual soul. Other important statement सर्वेषु लोकेषु । सर्वेषु भूतेषु confirms that this Ātman necessarily must be universal in nature.

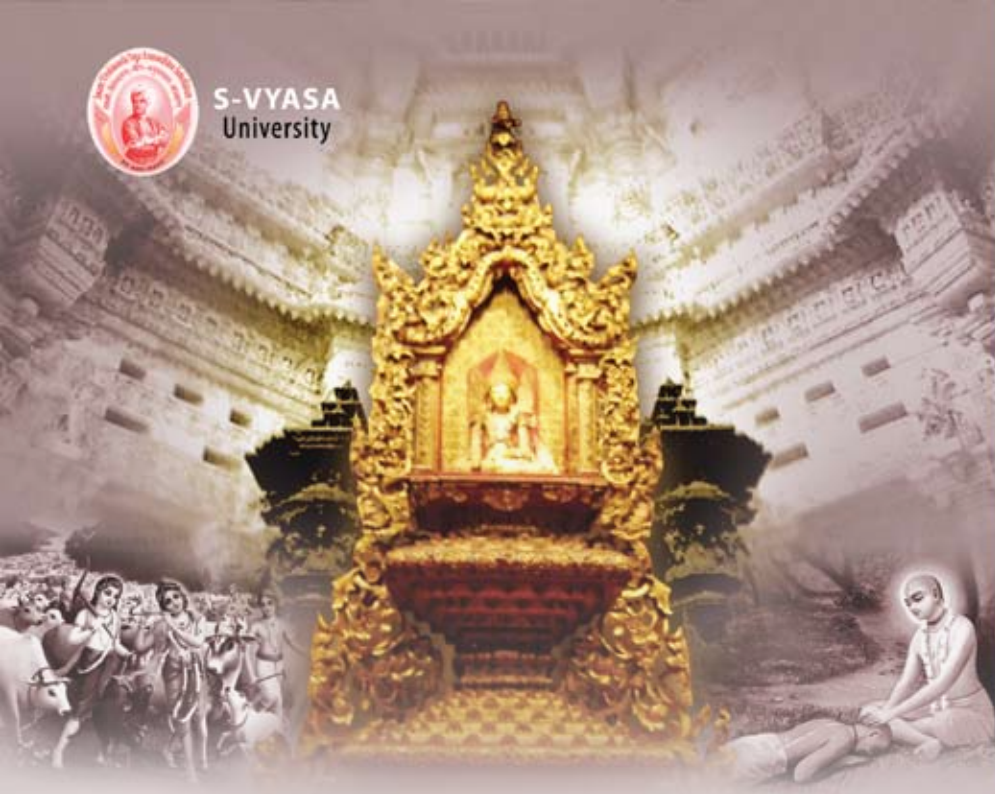
While describing Paramātman Upanishads shift from individual to universal and vice versa for the

convenience of ordinary seekers. For example the Aitareyopaniṣat from the Ṛgveda starts with universal structure अम्भो मरीचिः etc. and proceeds further projecting different deities in different organs of the body मुखं प्राविशत् नासिके प्राविशत् etc. In Kenopaniṣat it starts with witness of individual body and proceeds further तदेव ब्रह्म etc. This very style adopted in the Upanishads ultimately takes us to the final conclusion that Ātman is an integrated, holistic and single entity. For the convenience of understanding wherever, whatever type of figures of speeches is used never intentionally implies duality which is misunderstood by some schools of thoughts.

In this context the opinion of Jaimini, Āśmarathya, put forth their version of interpretation pertaining to Vaiśvānara word. विश्वश्चायं नरश्चेति, विश्वेषां वायं नरः, विश्वे वा नरा अस्त्येति विश्वानरः परमात्मा, सर्वात्मत्वात् - (श.भा) all this etymological analysis discarding different probable meanings like stomach fire, demi God and burning fire ultimately prove that the theory of everything is Brahman is the real meaning of the word Vaiśvānara.

Ācārya Bādari and Bādarayaṇa Vyāsa project this meaning and put a fullstop to the whole colloquium. भ्रुवोर्घ्राणस्य च यः सन्धिः स एष द्युलोकस्य परस्य च सन्धिर्भवति - (जाबालोपनिषत्) The above said statement synchronizes too Ātman corresponding to different domains but in reality they are one and the same. Localisation of universal thing must be understood in this context and non-dualistic universality must be properly projected.

*to be continued...*



# भक्तियोग पीठ प्रतिष्ठापनम्



## Installation of Bhaktiyoga Pīṭham

S-VYASA has initiated a plan to have the great personalities in the respective fields to Chair the Pithams. Great saints and personalities in the field of science have accepted and adore the chairs. Following are the giants who presently adore the chairs:

- ▶ Swami Dayananda Saraswati  
for Gnana Yoga Pitham
- ▶ Swami Prajna Aranyaji  
for Raja Yoga Pitham
- ▶ Padmabhushan Dr. Balamurali Krishna  
for Chair for Humanities
- ▶ Padma Vibhushan Dr. E. C. Sudarshan  
for Chair for Physical Sciences

Continuing the tradition, S-VYASA has installed Pujya Prema Pandurang ji an embodiment of Bhakti, an eloquent speaker on Hindu scriptures and a marvelous storyteller and interpreter on the History (Ramayana and Mahabharata) in the modern context. Pujya Premaji is an ardent devotee of Lord Rama and Lord Krishna.

On 14<sup>th</sup> Sept 2013 at 11.00 am in a glittering ceremony Pujya Amma was installed as the Chair for the Bhakti Yoga Pitham. Dr.

H R Nagendra, Chancellor gave the concept of having such luminaries to adore the chair and importance of the personalities for the direction and guidance of the University. Dr. Ramachandra G Bhat, Vice Chancellor read and explained the Citation specially prepared in Sanskrit, which brief the qualities of Pujya Prema Pandurang ji. Vedic Chanting along with flowers showered on Pujya Amma when she adored the Chair of Bhakti Yoga Pitham. Amma was felicitated and the citation presented.



Vice-Chancellor, Dr. Ramachandra G Bhat dedicating the Citation on behalf of Bhakti Yoga Pitha Installation to Pujya Prema Panduranga ji



Dr. Rajesh Kumar Grover, Director, Delhi State Cancer Center was the Chief Guest on the occasion. Dr. Grover, expressed his happiness for being invited for such an important program. He was very much pleased to go around the campus and appreciated the work S-VYASA is doing. He also expressed that DSCC and S-VYASA can take their expertise to greater heights especially in the treatment and care of cancer.

Earlier Pujya Premaji participated in the Aagama Pujas at the Yoga Vinayaka Temple. She was brought in a procession from the Temple to Mangal Mandir, where she was received with



Premaji Addressing the August body

Poorna Kumba Swagata. Dr. K Subrahmanyam ji, Pro Vice Chancellor welcomed the gathering, showered praise and brought out the qualities of Pujya Prema Amma. At the end Dr. Ramachandra Bhat ji, Vice Chancellor proposed the Vote of Thanks. The Master of the Ceremony was Dr. Padmini Tekur, who conducted the program very gracefully. ■

## C O N C E P T

मोक्षसाधनसामग्र्यां भक्तिरेव गरीयसी – Bhakti plays a prominent role in our journey towards ultimate Purushartha – ‘Moksha’, this is the clarion call given by Adi-Shankara in his Viveka Chudamani. Bhakti facilitates a smooth passage for a commuter who has to cross a jag jag path way in the Samsāra, though Mukti is Ultimate in human journey. Bhakti is the factor that makes SAMSĀRA with Some SĀRA (essence). As it is well known, Bhakti bereft of Yoga leads to Bhukti (enjoyment). Therefore, Yoga becomes the permeating factor which makes every insignificant action spiritualised and every devotional act like singing and dancing divinised. Yoga in our university is taken in the comprehensive sense with its totality at root level. योगो हि प्रभवाप्ययौ, दुःखसंयोगवियोगं योगसंज्ञितम् – these statements from Indian scriptures give very wide universal concept of Yoga which has been main Mantra of Prashnti Kutiram for more than 4 decades. It is the Bhakti which facilitates

an upsurge of emotional integration sanctified by Yoga. We have such role models in front of our eyes for all four types of Yogas projected by Swami Vivekananda whom we adore as an icon for S-VYASA University.

We inherited a tradition of पीठाधिष्ठान, an adored pedestal for Jnana, Dhyana aspects of Yoga. Mata Prema Panduranga is in front of us as an embodiment of various kinds of Bhakti like Kirtanam, Archanam.... etc. Atmanivedanam, the total surrender is the pinnacle of Bhakti manifestation. The members of academic council and members of board of S-VYASA with a band of family members of Prashanti, earnestly feel fulfilled to install Bhakti Yoga Pitha duly sanctified by Pujya Prema Ponduranga on 14 September 2013. We are eagerly waiting for that golden moment where all well-wishers, donors, academic advisors will assemble to extend their helping hands filled with blossomed lotus flower for Bhakti Yoga and its fragrance around.



During the Installation of Bhaktiyoga Pītham  
A Citation has been dedicated to Pujya Prema Pandurang ji  
Song composed by Prof. Ramachandra G Bhat ji

सङ्कीर्त्य नारायणादिव्यनाम तदीयपादाब्जयुगं प्रणम्य ।  
कालुष्यमेतत्परिमृज्य मर्त्यः कलेः कुकालेऽपि सुकोविदः स्यात् ॥ १ ॥  
One can be free from the troubles of Kali if one repeats the holy  
Name of Lord Narayana and serves the lotus feet.

भक्तिर्हि योगो भवतारणाय सा प्रेमरूपा परमा प्रशस्ता ।  
मातस्त्वदीया श्रुतिसाररम्या श्रद्धास्ति नित्यं बहुशोभमाना ॥ २ ॥  
Bhakti Yoga through Prema is the best tool to cross the bondage  
of life and you are ever elegant in bringing the core of the Vedas  
by invoking deep devotion.

पटुत्वं भवत्याः परं शंसनीयम् आह्वलादिविद्यास्वपि तत्प्रकृष्टम् ।  
वाल्मीकिरामायणशुद्धसत्त्वं भवत्सकाशे सुचिरं चकास्ते ॥ ३ ॥  
Pure essence of Valmiki Ramayana, explicated in your crystal  
clear English is appreciated by one and all.

श्रीमद्भागवतान्तस्था विद्योपास्या जनैः सदा ।  
आस्तिकानां वरोऽस्माकं शुद्धिसिद्धिपदं हि तत् ॥ ४ ॥  
Different mode of meditation described in Bhagavatam is a  
boon for seekers like us which should be followed (adhered) ever  
to achieve the goal.

राधा-मीरा-भक्तिमार्गे पावनप्रेमसंयुते ।  
नवानां रसमार्गाणां क्षेत्रे न स्याद् भवादृशी ॥ ५ ॥  
Purest form of Bhakti is practised by great devotees like Radha,  
Meera etc. in the modern time you excell in this.

भक्तेर्भावाः पञ्चसहस्रव्याः भक्तैः हरिहरात्मकैः ।  
आद्रियन्ते मनोऽस्माकं सन्मार्गे सम्प्रवर्तताम् ॥ ६ ॥  
Let 5 modes of Bhakti, addressed to Hari and Hara, lead our  
mind in the sanctified path for growth.

योगोऽयं भक्तिमार्गे सुजनपरिवृढे भ्राजते दाक्षिणात्ये  
कनाटे दासमार्गे शरणशमधनैः रक्षिता साधुवृन्दे ।  
विन्ध्ये सन्मार्गसिद्धाः परममृतमिदं साधुशीलाः पिबन्ति  
आर्यावर्तससमस्तो जगति शुभमियात् भक्तिमार्गेण पुष्टम् ॥ ७ ॥  
Bhakti Yoga is very popular among the pious people in the  
south in Karnataka Dasa and Sharanas proceeded forward  
Bhakti Yoga is the life for people living in Vindhya and let  
whole Aryavarta stand for spiritual path through Bhakti.

भक्तियोगस्य पीठेऽस्मिन् विवेकानन्दसंश्रयात् ।  
व्यासनान्ना सुविरल्याते योगसिद्धिः प्रसिद्धयतु ॥ ८ ॥



With the blessings of Swami Vivekananda, let the Bhakti Yoga Peetha of S-VYASA university become the wish - fulfiller.

लक्ष्मीमाता रामभक्ता प्रशान्त्यां प्रेरणास्पदा ।  
भक्तियोगो नाम्नि तस्याः पीठरूपेण राजताम् ॥ ९ ॥

Laxmi Aunty, inspirer of all of us, was a great admirer and  
devotee of Lord Rama. let the chair for Bhakti be installed in  
her memory.

पाण्डुरङ्गसमाख्याता भवती पीठशोभिता ।  
आगतान् साधकान् सर्वान् सत्प्रेम्णि प्रेरयत्वथ ॥ १० ॥

Pujya Prema Panduranga Ji!, having adorned Bhakti Yoga  
Peetha offered by S-VYASA Yoga University, Guide all the  
aspirants in the right path.



# SIGNIFICANCE OF AGAMAS

- Sushrutha S, Lecturer, Division of Yoga - Spirituality

Agama is derived from the verb root गम् (gam) meaning "to go" and the preposition आ (aa) meaning "toward" and refers to scriptures 'that which has come down'.

The term Agama primarily means tradition; Agama represents the previously ordained practices generally held in regard (Agama loka-dharmanaam maryada purva-nirmita - Mbh 8.145.61). Agama is also that which helps to understand things correctly and comprehensively. Agama Shastras are not part of the Vedas. The Agamas do not derive their authority directly from the Vedas. They are Vedic in spirit and character and make use of Vedic mantras while performing the service.

Agamas are a set of ancient texts and are the guardians of tradition .They broadly deal with **jnana (knowledge), Yoga (meditation), Kriya (rituals) and Charya (ways of worship)**. The third segment Kriya (rituals) articulate with precision the principles and practices of deity worship - the mantras, mandalas, mudras etc.; the mental disciplines required for the worship; the rules for constructing temples and sculpting the images. They also specify the conduct of other worship services, rites, rituals and festivals. The fourth one, Charya, deals with priestly conduct and other related aspects. (Incidentally, the Buddhist and the Jaina traditions too follow this four-fold classification; and with similar details)

## UNITY IN DIVERSITY

**Prashanti Kutiram, Sept 14:** Four traditional worshipping methods were demonstrated in one platform to synergize every sect. **Panchayatana Puja** was done by **Vidwan Shankarananda Jois** in Yoga Vinayaka Temple, **Veerashaivagama** by **Sri Vinod Baragi and team** at Shiva Statue, **Pancharatragama** by **Vidwan Anantacharya**, adjacent to Shiva statue and **Vaikhanasagama** by **Vidwan Ram Bhat**, adjacent to Ganapati Temple. It was the historical event to bring all the traditional styles of Pujas. The residents of Prashanti Kutiram were really blessed by all the gods.

There are three main divisions in Agama shastra, **the Shaiva, the Shaktha and Vaishnava**. The Shaiva branch of the Agama deals with the worship of the deity in the form of Shiva. This branch in turn has given rise to Shaiva Siddantha of the South and the Prathyabijnana School of Kashmir Shaivism. The Shaktha Agama prescribes the rules and tantric rituals for worship of Shakthi, Devi the divine mother. The third one, Vaishnava Agama adores God as Vishnu the protector. This branch has two major divisions **Vaikhanasa** and **Pancharatra**. The latter in turn has a sub branch called **Tantra Sara** followed mainly by the Dvaita sect (Madhwas).





मा निषाद प्रतिष्ठां त्वम् अगमः शाश्वतीः समाः । यत्कौञ्चमिथुनादेकम् अवधीः काममोहितम् ॥

**Prashanti Kutiram, Sept 14-20:** Ram Katha - The Glimpse of Valmiki Ramayana, discourse series held in Prashanti Kutiram. Discourses were delivered by Pujya Prema Pandurang ji who is the Chair Person of Bhaktiyoga Pitham of S-VYA-SA. It started on Sept 14 & continued for next one week.

Rama Sankirtana enhanced the Spiritual Atmosphere of Prashanti. It covered all the Seven Kandas (divisions) of Ramayana. The Seven Kandas of Ramayana are Bala Kanda, Ayodhya Kanda, Aranya Kanda, Kishkindha Kanda, Sundara Kanda, Yuddha Kanda and Uttara Kanda.

**Here is the brief story of Ramayana:**

आदौ रामतपोवनाभिगमनं हत्वा मृगं काञ्चनम्  
वैदेहीहरणं जटायुमरणं सुग्रीवसम्भाषणम् ।  
वालीनिग्रहणं समुद्रतरणं लङ्कापुरीदाहनं  
पश्चात् रावणकुम्भकर्णहननं एतद्धि रामायणम् ॥

*ādau rāmatapovanābhigamanani hatvā mṛgaṇi  
kāñcanam vaidehīharaṇani jaṭāyumarāṇani  
sugrīvasambhāṣaṇam ।*

*vālinīgrahaṇani samudrataraṇani  
laṅkāpurīdāhanani paścāt*

*rāvaṇakumbhakarṇahananani etaddhi rāmāyaṇam ॥*

Once Rama went to the forest and he was mesmerised by a deer which he chased. During

this process, Sita was kidnapped by Ravana because she crossed the protective line of Lakshmana. Meanwhile, Jatayu was killed by Ravana seeking to protect Sita. There was a conversation between Rama and Sugreeva to help each other. Vali was killed as he had kidnapped Sugreeva's wife without his consent. Then Sugreeva appointed Hanuman to assist Rama in the task of saving Sita. So Hanuman crossed the sea to Lanka where Sita was held in captivity. Then Sita was saved and Lanka was burnt and later Ravana and Kumbhakarna were also annihilated. This, in short, is the story of Ramayana.

**Finally, it concluded with the Mantra:**

*Sri Rama Jaya Rama Jaya Jaya Rama...*

*Sri Rama Jaya Rama Jaya Jaya Rama...*



Hey  
Ram...

# Avatara Vaibhava Bhava Ganga

*Bhakti  
the Supreme  
Ecstasy*



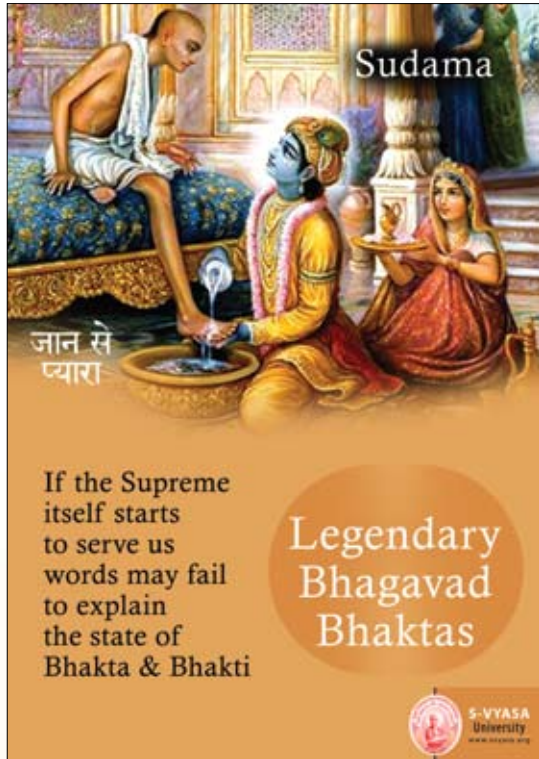
कूजन्तं रामरामेति  
मधुरं मधुराक्षरम् ।  
आरुह्य कविताशाखां  
वन्दे वाल्मीकिकोकिलम् ॥



## BHAKTI

*A much needed path of Emotions Culture for Modern Times*

■ Rajesha H K, Lecturer, Division of Yoga - Spirituality



The term Bhakti comes from the root 'Bhaj', which means 'to be attached to God'. Bhakti is love for love's sake. The devotee wants God and God alone. There is no selfish expectation here. There is no fear also. Therefore, it is called 'Parama Prem Rupa'.

Life is like a journey of a boat in the ocean. Journey starts with the aiming a point to reach it. In that way, sometimes, we come across a big wave in front of us and sometimes short it is. In the same way, the life stands on happy and sorrow. Finally ends with a destination that is same to all. To reach that destination there are different paths, which lead to same goal of life that is liberation. To attain the path of liberation there are so many paths by which we will get liberated. The paths are as mentioned Jnana, Karma, Dhyana and Bhakti. As the great spiritual master Adi Shankaracharya says in his Vivekachudamani in a single verse -

### PICTORIAL EXHIBITION

**Prashanti Kutiram, Sept 14:** As a part of Bhaktiyoga Pitha Installation ceremony, Pictorial Exhibition made the program a grand success. It was inaugurated by Pujya Prema Pandurang ji. The exhibition had focused mainly on Nava Vidha Bhakti and Pancha Mahabhava and projected various Bhaktas of different traditions with variety of Bhaavas (emotions). This presentation had given a brief idea and different angles of Bhakti Yoga.

*Mokṣakāraṇasāmāgryāni bhaktireva garīyasī |  
Svasvarūpānusandhānāni bhaktirityabhidhīyate ||*

In the path of liberation Bhakti is the leading phenomenon. Bhakti is nothing but to know yourself. There are different kinds of Bhakti explained in a single verse.

When the devotee grows in devotion there is absolute self-forgetfulness. This is called Bhaava. Bhaava establishes a true relationship between the devotee and the Lord.

There are five kinds of Bhaava in Bhakti. They are Shanta, Dasya, Sakhya, Vatsalya and Madhura Bhāvas. These Bhāvas or feelings are natural to



Inauguration of Pictorial Exhibition by Pujya Amma



human beings and so these are easy to practice.

In **Shanta** Bhäva, the devotee is Shanta or peaceful. He does not jump and dance. He is not highly emotional. His heart is filled with love and joy. Bhishma was a Shanta Bhakta.

Sri Hanuman was a **Dasya** Bhakta. He had Dasya Bhäva, servant attitude. He served Lord Rama whole-heartedly. He pleased his Master in all possible ways. He found joy and bliss in the service of his Master.

In **Sakhya** Bhäva, God is a friend of the devotee. Arjuna had this Bhäva towards Lord Krishna. The devotee moves with the Lord on equal terms. Arjuna and Krishna used to sit, eat, talk and walk together as intimate friends.

In **Vatsalya** Bhäva, the devotee looks upon God as his child. Yashoda had this Bhäva with Lord Krishna. There is no fear in this Bhäva, because God is your pet child. The devotee serves, feeds, and looks upon God as a mother does in the case of her child.

The last is **Madhura** Bhäva or Kanta Bhäva. This is the highest form of Bhakti. The devotee regards the Lord as his Lover. This was the relation between Radha and Krishna. This is Atma-Samarpana. The lover and the beloved become one. The devotee and God feel one with each other and still maintain a separateness in order to enjoy the bliss of the play of love between them. This is oneness in separation and separation in oneness. Sri Chaitanya, Jayadeva, Mira and Andal had this Bhäva.

Devotion to God is developed in nine different ways. It is supreme attachment to God through a Bhava predominant in the devotee. Intense love is the common factor in all the nine modes.

*Śravaṇa kīrtanāni viṣṇoḥ smaraṇāni pādasevanam |  
Arcanāni vandanāni dāsyāni sakhyaṁ  
ātmanivedanam ||*

|| Bhāgavatam ||



A Grand look at Bhagavata Bhaktas

These are the different modes of Bhakti explained in Bhagavata puranam. If we look at the epics we can find out such kind of devotees of the above said. Narada, Dhruva, Prahlada, Hanuman, Shuka, Ambarisha, Vyasa etc. are the persons meant to Bhakti tradition. Nine forms of Bhakti are

**Sravaṇa** (hearing of God's Lilas and stories), **Kīrtana** (singing of His glories), **Smarana** (remembrance of His name and presence), **Padasevana** (service of His feet), **Archana** (worship of God), **Vandana** (prostration to Lord), **Dasya** (cultivating the Bhava of a servant with God), **Sakhya** (cultivation of the friend-Bhava) and **Atmanivedana** (complete surrender of the self).

A devotee can practice any method of Bhakti which suits him best. Through that he will attain Divine illumination. Here paths are different but the goal is same to attain it. And Narada also said in his Narada Bhakti Sutra that

*Sā twasmin paramapremarūpā || Nā Bha Sū ||*

The purest love is nothing but the bhakti. How the love becomes pure? Offering prayers to God performing actions without expecting the fruit of it, by listening and chanting the name of God continuously in the mind. All these makes the mind so purest and helps to attain such a great height in the path of liberation. ■



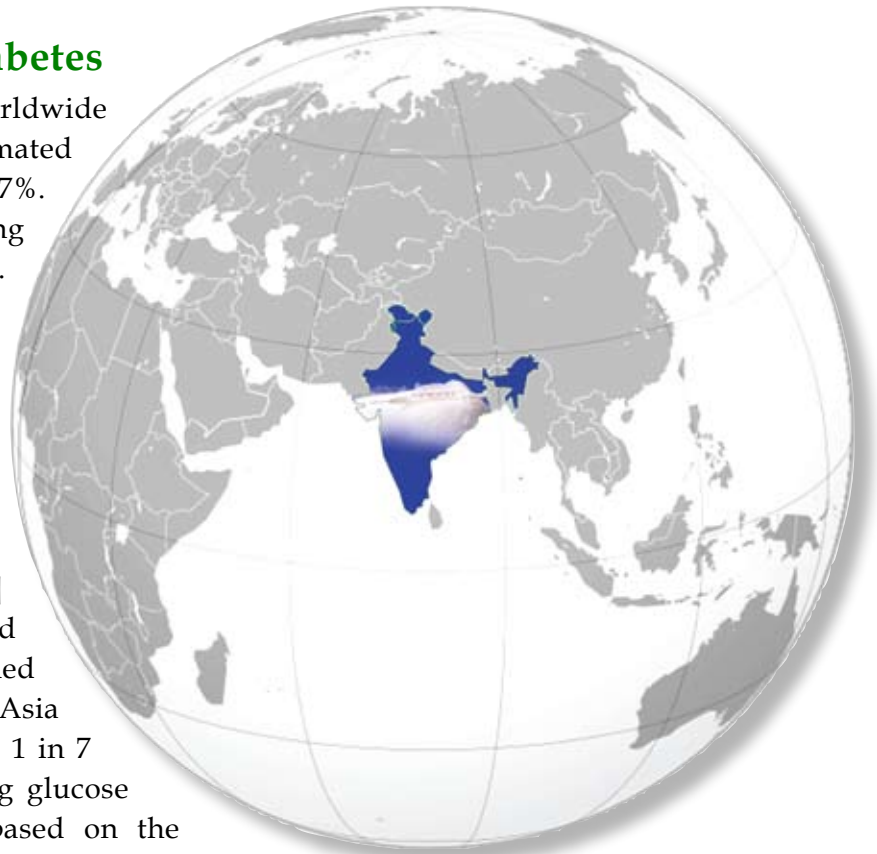
# Prevent India Becoming “Diabetic Capital”, Join Hands For “Stop Diabetes Movement”!

■ *Dr. Hemant Bhargav MBBS,MD, Dr. Amit Rathi BAMS,(MD),  
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## India will be the global Capital of Diabetes

In 2010, prevalence of diabetes worldwide among adults was 6.4% and it is estimated that by 2030 it will increase by 7.7%. By 2030, diabetes will be affecting approximately 439 million people. In this gap of 20 years (2010 to 2030), the increase will be 69% in developing countries and 20% in developed countries. In fact, the problem is worsening faster than expected as seen by these figures: in 2000, the projected figure for 2030 was 366 million [1] and by 2010, the figure has reached 439 millions. It is now established from epidemiological studies in Asia that approximately 15 per cent or 1 in 7 adults has either increased fasting glucose or impaired glucose tolerance based on the WHO criteria [2,3] of which an estimated 5 to 12 per cent develop Type 2 diabetes annually [3]. The increasing threat of T2DM is highlighted by following facts:

- ▶ 347 million people worldwide have diabetes [4].
- ▶ In 2004, an estimated 3.4 million people died from consequences of high fasting blood sugar [5].
- ▶ More than 80% of diabetes deaths occur in low- and middle-income countries [6].
- ▶ WHO projects that diabetes will be the 7th leading cause of death in 2030 [7].



India is threatened with the epidemic of Type 2 Diabetes Mellitus (T2DM) with second largest number (>61 million) of diabetics, expected to double by 2030 [8]. Alarming things are, T2DM is increasing in rural India too [9] and its onset is shifting to younger age [10]. Due to unhealthy lifestyle [11], a large proportion of the population is at “high risk” of progression to T2DM [12] which indicates a huge burden on nation’s health and economy in near future. The national T2DM prevalence in 2011 was already 8.3 percent [12]. In 2006, diabetic population in India was 40.9 million and it is estimated to



be 69.9 in 2025 and 80 million in 2030. These observations, together with the high rates of complications and mortality [13] associated with T2DM, demonstrate that diabetes prevention is an urgent priority for the government and other organizations in India.

### Need for Lifestyle Intervention



In spite of great technological advancement and spending millions of dollars in research to develop drugs for the management, it has not been possible to reduce the rising trend in incidence of diabetes type 2 and morbidity and mortality associated with this health problem. Five classes of oral agents are approved for the treatment of diabetes. Oral therapy is indicated in any patients in whom diet and exercise fail to achieve acceptable glycaemic control. Although initial response may be good, oral hypoglycaemic drugs may lose their effectiveness in a significant percentage of patients. The drug categories include sulfonylurea, biguanide, alpha-glucosidase inhibitor, thiazolidinedione, and meglitinide. These drugs have various side effects e.g. sulfonylurea causes weight gain due to hyperinsulinemia [14, 15] biguanides cause weakness, fatigue, lactic acidosis, alpha glucosidase inhibitor may cause diarrhoea

while thiazolidinediones may increase LDL-cholesterol level. Weight gain and hypoglycemia are common side effects of insulin [16,17]. Vigorous insulin treatment may also carry an increased risk of atherogenesis [17]. Also, several studies have shown that intensive glycaemic control does not reduce the incidence of cardiovascular events or mortality [18]. The reasons for the increased mortality with very tight glycaemic control in Action to Control Cardiovascular Risk in Diabetes (ACCORD), and lack of benefit in Action in Diabetes and Vascular Disease: Preterax and Diamicon MR Controlled Evaluation (ADVANCE) and Veterans Affairs Diabetes Trial (VADT) are unclear [19]. Further, rising costs for drugs and investigations on a long term basis add to the financial burden which a large section of the poor living in India.

Lifestyle intervention has been found to be efficacious, safe, and cost-effective method [20, 28,30,37] the major challenge is to translate lifestyle interventions into prevention programs at the national level [21] for which it is important to look at lifestyle interventions which are not resource-intensive and those which are nearer to the community that people live in [22].

### SDM (Stop Diabetes Movement) by VYASA in India

Vivekananda Yoga Anusandhana Samsthana (VYASA) through its 30 years of continuous research has evolved Specific Integrated Yoga



Therapy modules for chronic diseases based on intense search of the yogic literature that is being continuously updated based on the results after implementation of the modules. VYASA in its Arogyadhama (200 bedded residential integrative health center) through residential treatments has treated nearly 4 Lakh patients of Non-Communicable Diseases. Apart from



the publications that provided the scientific evidence through RCTs [20, 25], the observations on large number of patients with DM2 who are able to get back their wellness (stop their insulin requirements, maintain their weight, better sleep, energy levels and quality of life) has been a rewarding experience at the Arogyadhama.

### Evidence for Yoga in Management and Prevention of Diabetes

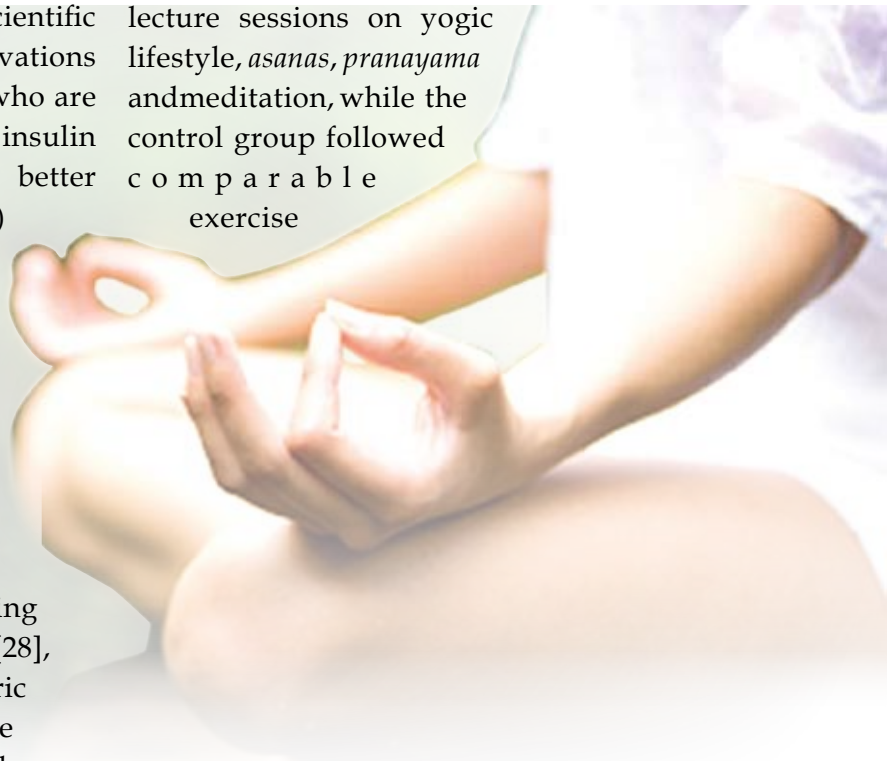
Yoga is an old, traditional, Indian psychological, physical and spiritual regimen that has been studied for several decades for its role in the management of several chronic diseases including hypertension [26], asthma [27], obesity [28], neuromuscular diseases [29], psychiatric illnesses [30] and coronary artery disease [31]. There are about 65 published research papers pointing to the efficacy of yoga based lifestyle programs from round the globe.

Yoga based life style intervention, an innovative form of physical activity and stress management can be considered the best intervention for community-based management programs in tackling the burden of type 2 diabetes [22] as it has already shown its efficacy in different domains of DM2 [32]. Yoga is also easy and inexpensive to maintain, requiring little in the way of equipment or professional personnel, with some studies indicating excellent long-term adherence and benefits [30-33].

The beneficial effects of yoga seem to be due to the relaxation response that has the potential to reduce the heightened stress responses through techniques that promote mastery over the modifications of mind [38].

In a recent randomized controlled trial ( funded by the ministry of health and family welfare, new Delhi) [20], we recruited 277 DM2 subjects (both male and female, 28-70 years) and randomized them into two groups; one group practiced yoga based lifestyle intervention that included

lecture sessions on yogic lifestyle, *asanas*, *pranayama* and meditation, while the control group followed comparable exercise



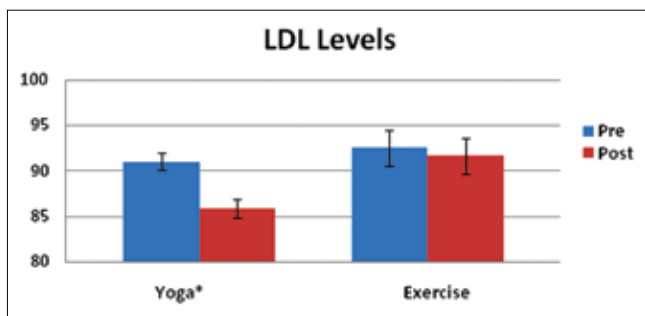
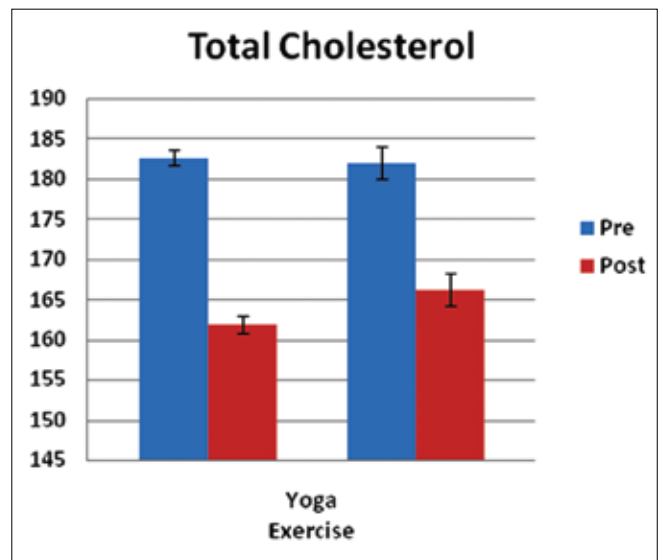
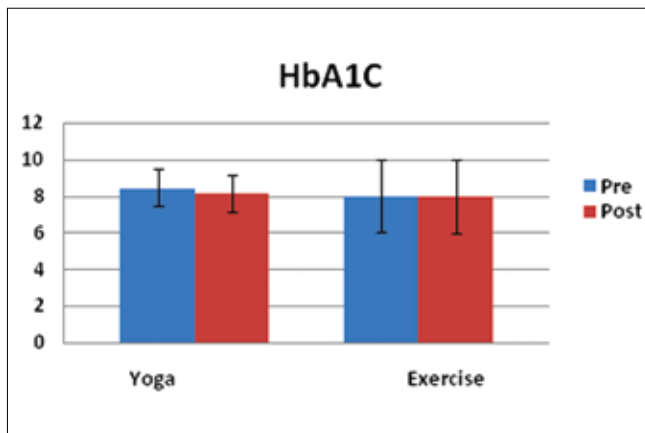
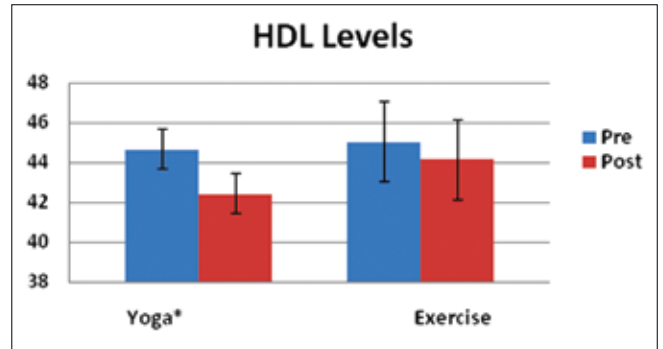
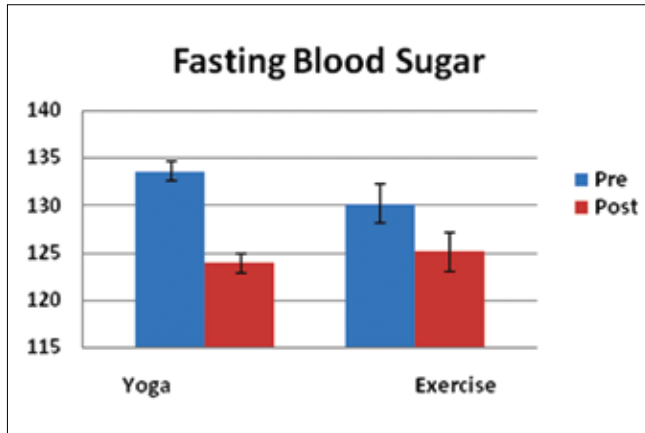
based life style program that included life style education and physical exercises (one hour daily for 9 months with supervised practices for both groups). Yoga based life style modification program was better than exercise in decreasing oral hypoglycemic medication requirement and LDL; and increasing HDL whereas Yoga was found to be similar to exercise based life style modification in reducing blood glucose, HbA1c, Triglyceride, total cholesterol and VLDL [20]. Yoga based lifestyle offers a comprehensive solution to the problem of diabetes: as a preventive program [39] for prediabetes, for risk reduction [40] and management of complications [41-43].

Inspired by these research data and the amazing results, VYASA has undertaken an ambitious nationwide program, the SDM "Stop Diabetes Movement" to bring down the rising incidence of diabetes in India. Stop Diabetes Movement (SDM) is a community (Public - Private Partnership) effort to prevent India from becoming the world capital of Diabetes Mellitus using the Integrated Approach of Yoga Therapy (IAYT).

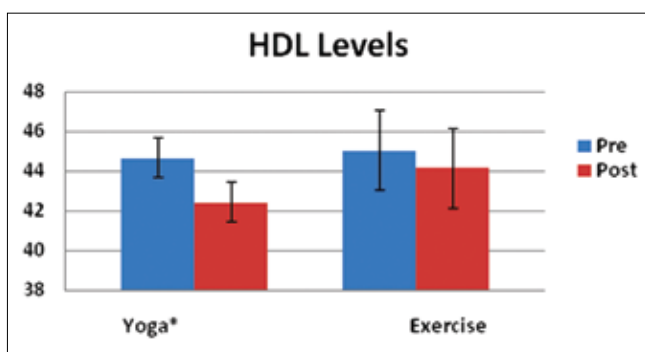


**Graph 1:**

Yoga based life style versus Physiotherapy Based Life style on Risk Factors in Type 2 DM- Randomized Controlled Trial (n = 277; duration of intervention: 9 months)<sup>20</sup>



\* Significant between group differences ( $p < 0.05$ )  
Abbreviations: HbA1C: Glycosylated Hemoglobin, LDL: Low Density Lipoprotein, HDL: High Density Lipoprotein





## Objectives of SDM of VYASA, India

- i **Primary prevention of DM2 in India:** Prevent Pre-diabetics to become diabetics, and
- ii **Secondary prevention of DM2 in India:** Converting Diabetics From Severe to moderate, Moderate to mild, and from Mild to normal.

## SDM by VYASA, Bengaluru: Progress in Three Years

VYASA first announced SDM with an aim to stop the epidemic spread of diabetes in India in the year 2008. Since then several SDM camps have been conducted in many states viz Karnataka, Gujarat, Rajasthan, Maharashtra, Tamilnadu, Andhra and Assam. Under this scheme around 600 volunteers (from different states of India), have been trained to become efficient yoga therapists to teach Yoga for diabetes. In the year 2013, camps have been conducted in Rajkot (Gujarat), Udaipur and Chittorgarh (Rajasthan), Pondicherry (Tamilnadu) and Chikhali (Maharashtra). Five different yoga modules have been evolved to provide stepwise progression of the practices. The first module is being implemented in all



these camps (Table 1). Only a small number of investigations are monitored in these camps (7 days) to keep the costs to the minimum. About 1000 patients have been registered and taught the first module of yoga in these five camps of 2013. Significant improvements ( $P < 0.001$ ) have been observed in FBS, PPBS and Lipid profile. Also, the subjective feedback from patients attending these camps shows improvement in the quality of life and sleep with reduction in symptoms of fatigue. The major problems faced by VYASA included shortage of man power and funding for implementation of the program in more places training of more therapists and conducting population based documented follow ups.





**Table 1: Yoga Module 1 for SDM**

Number	Name	Posture	Practices
1.	<b>Breathing practices (5 minutes)</b>	Standing	Hands Stretch Breathing
		Sitting	Shashankasana - Tiger Stretch Breathing
2.	<b>Loosening practices Shitihilikarana vyayamah (5minutes)</b>	Standing	Padahastasana - Ardhashakrasana vyayama
			Trikonasana vyayama
		Sitting	Kati parivartana vyayama (Spinal Twist)
			Chakkichalana
			Bhunamanasana
Supine	Pawanmuktasana Kriya		
Prone	Dhanurasana Swing		
3.	<b>Relaxation(5 minutes)</b>		<b>Instant Relaxation Technique</b>
4.	<b>Surya Namaskara (5 minutes)</b>		12 steps
5.	<b>Asanas (10 minutes each)</b>	Standing	Ardhakatichakrasana
			Parivritta Trikonasana
		Sitting	Vakrasana
			Ardhamatsyendrasana
		Prone	Bhujangasana Dhanurasana
Supine	Pawanmuktasana Matsyasana		
	<b>Relaxation(10 minutes)</b>		<b>Deep Relaxation Technique</b>
6.	<b>Kriyas</b>		Kapalabhati, Vaman Dhouti (Once a week)
7.	<b>Pranayama (10 minutes)</b>		Nadishuddhi
			Bhramari pranayama
			Om chanting
8.	<b>Meditation (20 minutes)</b>		Cyclic Meditation

**20<sup>th</sup> International Conference by VYASA to Promote SDM Globally:**

The theme of the 20<sup>th</sup> International Conference on Frontiers in Yoga Research and Its Applications (20<sup>th</sup> INCOFYRA) from January 2nd to 5th, 2014 at its headquarters, Prashanti Kuteeram, Bengaluru, India is **“Yoga: A Public Health Strategy for Diabetes - Prevention and Education”**. The aim is to evolve and engage in a nation-wide Stop Diabetes Movement for diabetes prevention and education to unseat India from its deplorable position as the ‘Global Capital of Diabetes’.



**Conclusion:** Diabetes is a major health problem and a leading cause of morbidity and mortality all over the globe; it is reaching epidemic levels in India. Yoga based lifestyle, with its holistic approach, offers a comprehensive solution to the complex problem of diabetes. Stop diabetes movement (SDM) by VYASA is a nation-wide initiative which is spreading globally to curb diabetes through yoga based lifestyle intervention. This article invites one and all to join hands with VYASA and “Stop Diabetes” through Yoga!!

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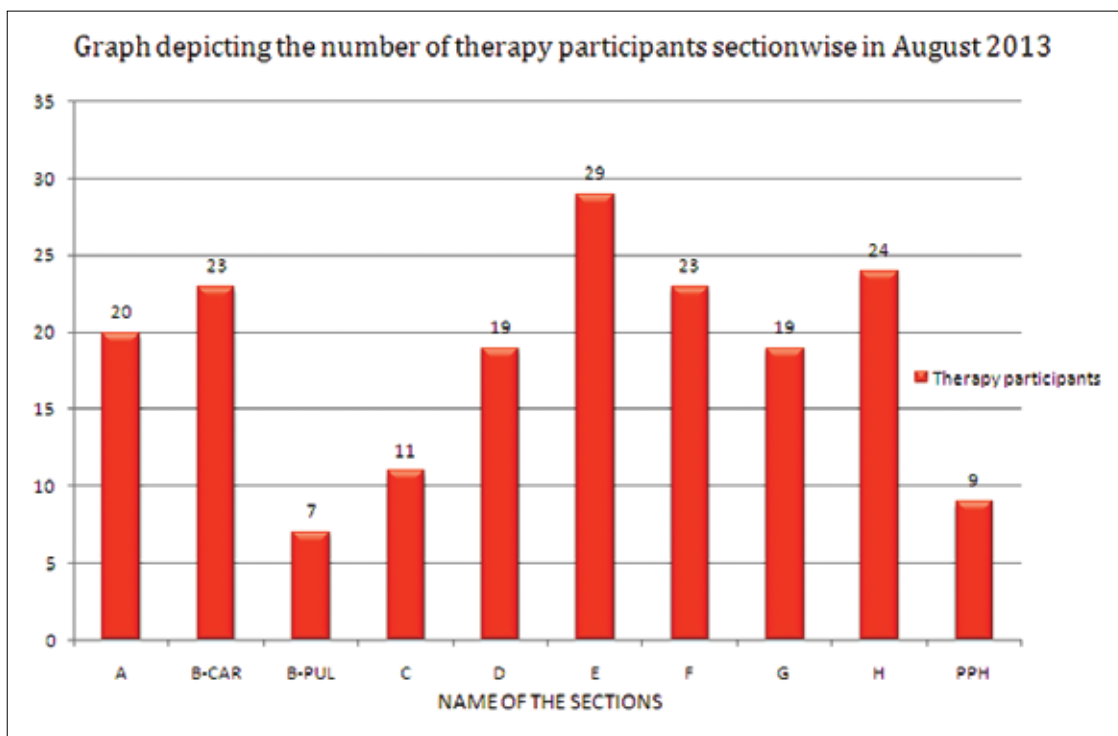
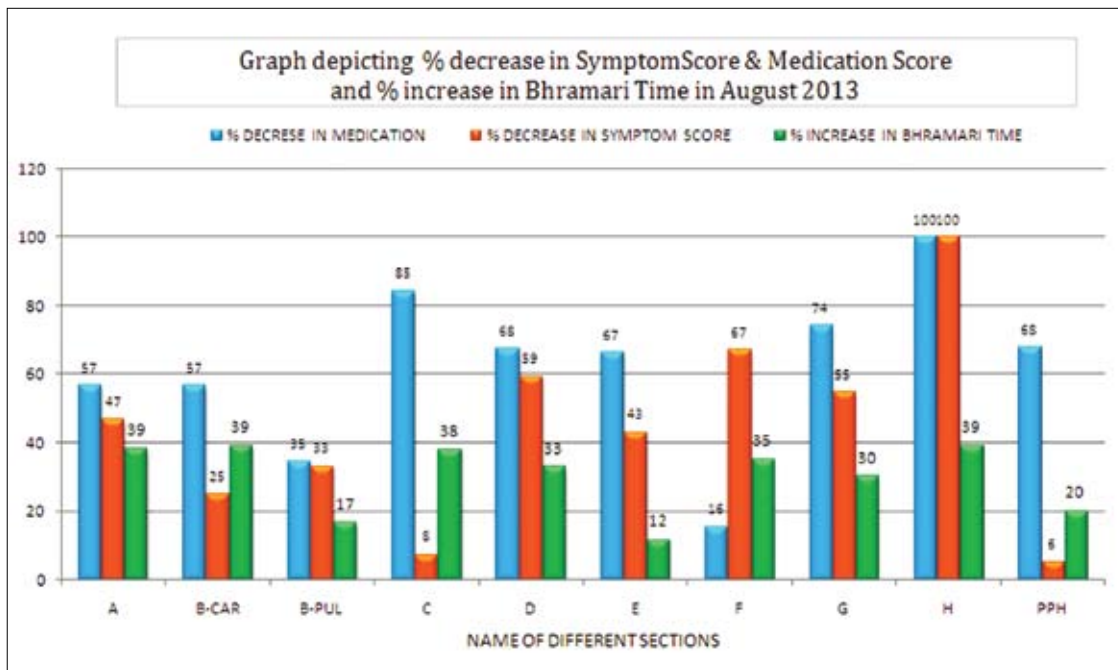
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# AROGYADHAMA DATA - Aug, 2013



## AILMENTS TREATED IN AROGYADHAMA (SECTION WISE)

**A. Neurology:** Epilepsy, Migraine, Parkinson's, Muscular dystrophy, Cerebral Palsy, Multiple sclerosis, Mental retardation; **Oncology:** Breast cancer stage 1, 2, 3, 4; Colon, Prostate, Blood, Myelomas | **B. Pulmonology:** Bronchial Asthma, Nasal Allergy, Chronic Bronchitis; **Cardiology:** High BP, Low BP, Heart Disease (CAD) | **C. Psychiatry:** Anxiety, Depression, Psychosis, OCD, mental retardation | **D. Rheumatology:** Arthritis | **E. Spinal disorders:** Acute and Chronic Back Pain, Lumbar Spondylosis, Disc Prolapse, Scoliosis, Neck Pain | **F. Metabolic disorders:** Diabetes | **G. Gastroenterology:** Gastritis, Peptic Ulcer, Irritable Bowel Syndrome (IBS), Ulcerative Colitis | **H. Endocrinology:** Obesity, Thyrotoxicosis | **Promotion of Positive Health | Eye Problems:** Short Sight, Long Sight, Astigmatism, Squint, Early Cataract, Glaucoma



# BODY MECHANICS and YOGA

■ Prof. T M Srinivasan, Dean, Division of Yoga & Physical Sciences, S-VYASA

## INTRODUCTION

We may downgrade annamaya kosa in our overall view of 'life'; however, this kosa should be functional and in good health if we need to do any thing else. Thus, at the fundamental level, body could be considered just as a mechanism made of many parts - utilizing the view of modern medicine. While we also look at subtle levels of the organism as a whole, integrity of the body is a primary requisite for feeling without pain and distress. Thus, science of Biomechanics has grown to understand and account for many mechanical problems and attempt at corrections based on purely mechanical principles. While we talk about Vijnanamaya and Anadamaya kosas, it is helpful - from the patient's perspective - to remove the pain first and then provide a holistic

view as a tool for avoiding further distress and for self development.

## THERAPEUTIC EXERCISE

*Therapeutic Exercise* [TE] is an art and science of systematic movement of body parts through passive and active methods to restore lost functions in a person. Passive exercises are carried out by a therapist and active exercises are those carried out by the patient himself/herself. Normally after an injury or stroke, the person is unable to move body parts due to neuromuscular, joint or skeletal dysfunction. Therapeutic exercises are designed by a physiotherapist to cater to the unique needs of each patient. There are some interesting overlaps of TE with Yoga practices. We shall see these in this narration.

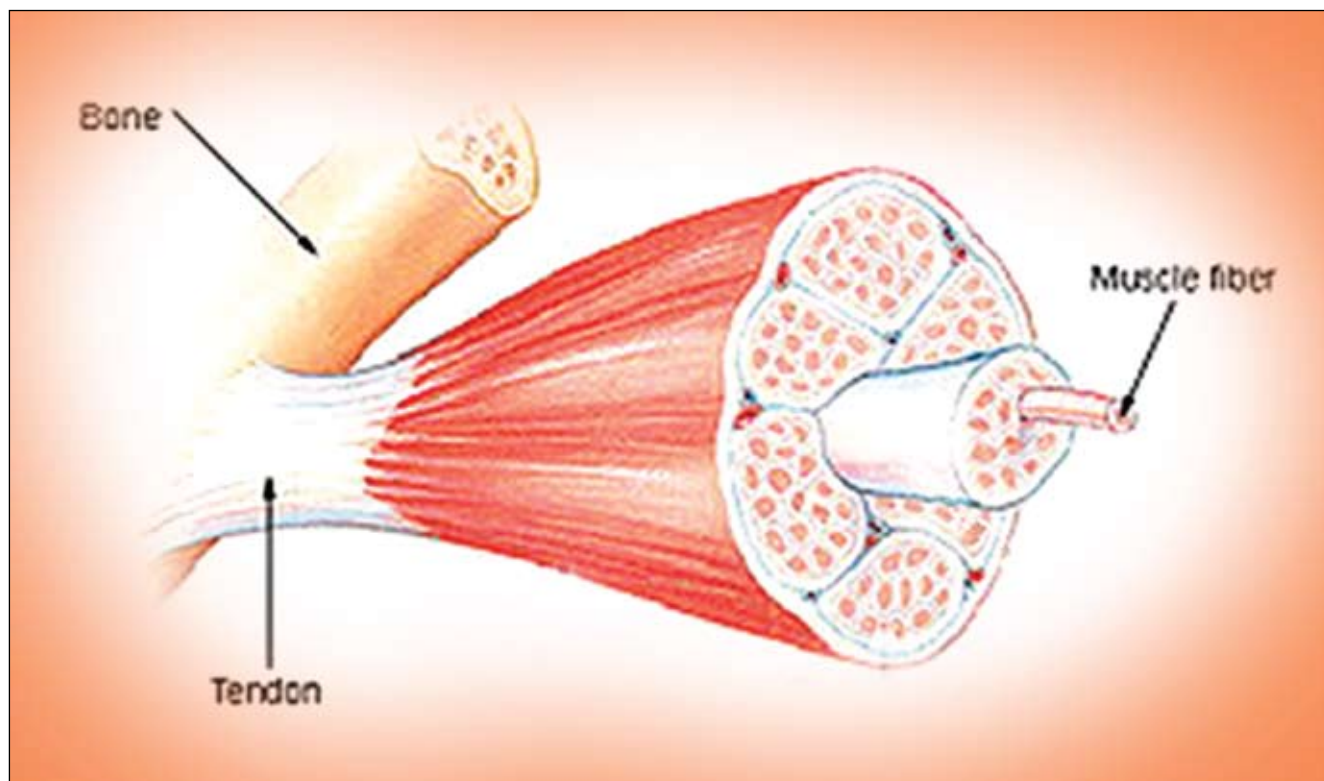


Fig 1: Cross section of a muscle attached to a bone through a tendon



Let us look at Yoga as a therapeutic movement regimen. How does Yoga fit in as a therapeutic modality? [1]. It is important to realize that two basic concepts are borne in mind when we prescribe a therapy for some neuromuscular dysfunction. First, the movements must be carefully assessed and the probable cause of the dysfunction arrived at. Secondly, using the principles of body mechanics and physiotherapy, we need to provide asanas to bring back the system into normal functioning. Thus, knowledge of physiotherapy and control of functional movements are required for anyone involved in rehabilitation through Yoga.

Normally, a person with functional deficit will have one of three problems: the muscles are rigid (as in cases of stroke), they could be flaccid or loose (as in cases of mental handicap), or there could be tremor of the muscles as in Parkinson deficit. These three patterns may be distinct or there may be overlaps giving a complicated physiologic problem. Physiotherapists have come upon methods of dealing with these deficits through their own experiences; this was later confirmed through research in physiological laboratories to strengthen and extend the concepts involved in initiating therapeutic movements. This is an exciting story; however we will not go into details of this here! We shall briefly present the principles involved without going into theories and justification for the methods. Such material is available in many books and papers published in the past 20 years [2].

### NEED TO TRAIN YOGA TEACHERS IN THERAPEUTIC MODALITY

We all know that prevention is better than attempting a cure. It is said in the ancient texts of Greece that "Nature cures the disease; while, the role of the doctor is to amuse the patient"!

While there is much truth in this, the body needs corrective measures at the mechanical, biochemical, electromagnetic, psychological

levels and lastly, at the spiritual level. A therapist should be familiar with all these levels of body/mind function and possible cause of a problem, even if it is reflected in the dysfunction of body only (not in other kosas). Hence aspects of biomechanics, physiotherapy, psychotherapy, biochemical and electromagnetic support should be known to a Yoga teacher. He/she should not teach isolated practices and divergent procedures.

### ASPECTS OF PHYSICAL FUNCTION

Let us look at some definitions of physical well being of a person. See also Table 1 for details.

1. **Balance and Stability.** The ability to maintain and align body segments against gravity without falling; this is a unique and important aspect in older people and also for those who have lost lower limb control. Synergistic muscle movements are required for both these aspects.
2. **Coordination.** This is related to sequential and orderly contraction of muscles with correct intensity of muscle activity for smooth and continuous movements.
3. **Flexibility and Mobility.** To be able to move freely and unimpeded. The ability to extend the joints as required, with smooth neuromuscular activation. Range of motion is important.
4. **Muscle Strength.** The capacity of the muscle to do work for chores of daily living, such as walking inside home, eating, dressings etc.
5. **Endurance.** The ability for carrying out low intensity and repetitive body movements (such as walking, swimming etc) over some time, say for half an hour. This is also related to cardiopulmonary fitness.

All the above aspects of neuromuscular functions should be tested and the appropriate corrective measures in the form of passive (activated by therapist) or active (person doing himself, without help) movements of joints and muscles initiated. There is a need to mobilize



or re-mobilize neuromuscular activity and strengthen through repetitive movements. The brain is sufficiently plastic (i.e. ability to relearn) for any complex movements that are lost during accident or trauma. Let us look briefly into methods of relearning the lost function.

## MUDULATING MUSCLE DYNAMICS

How do we deal with flaccidity, muscle tremor and muscle tightness mentioned earlier? Here several excellent ways of helping people with these conditions exist. Table 2 summarizes the results of many experiments and measurements in this area. Obviously, weak muscles must be strengthened; tight and rigid muscles made to relax and inappropriate and jerky movements must be brought under smooth control.

Making weak muscles strong is easy; this is what we all do as we grow. The legs of an infant are weak; as we start putting body weight on the legs and start walking, the concerned muscles get strong and ultimately, we find normally the thighs and the leg muscles are the strongest in the body. Similarly, exercising the muscles with added weights or even without the weights would normally strengthen the muscle. Here the target muscles must be identified and specific exercises provided.

Tremor in a muscle is due to improper control of the muscle from the central nervous system. In this case, then we need to adjust the feedback from muscle to the brain and neurological response of the brain to the muscle. One of the best ways of doing this is through stretch of the muscle. Since the muscle is weak under stretch and as tendon (joining the muscle to the bone, see figure) could easily tear under stretch, there are numerous feedback information pathways to the brain to prevent extreme stretch. Any asana constitutes weight bearing muscles that maintain the pose and other muscles that are stretched. Stretching could be done fast or slow; further the stretch could be maintained for a short time. Each of these has its own advantage

in providing the required feedback to bring the muscle under control. The therapist should be conversant with these and related techniques before taking up the important function of treating a patient. Table 2 gives some basic ideas and some exciting books are available for complementing the knowledge of the therapist [2, 3].

Yoga for neuromuscular rehabilitation is an exciting area and integrating recent developments in physiotherapy is essential for effective support and rehabilitation. Yoga has the advantage of involving many muscles along with pranayama techniques that could augment the correcting and healing processes. Awareness of the deficit, proper coordination, sequential movements, pose-counter pose exercises, bhavana of energy flow patterns and focusing the mind/body/subtle body triad for rehabilitation could be very powerful in mitigating suffering and rebuilding neuromuscular integrity.

In the final analysis, it should be realized by all those working in the Yoga rehabilitation that the advantages of practicing asanas are two fold: 1. Stretch of a muscle improve its control; 2. Asanas also work on the muscle strength through isometrics (weight bearing with constant length) and improve muscle performance. *Hence for both muscle control and for muscle strength, asanas are recommended.*

## REFERENCES AND NOTES

- 1 The author organized the first All India Conference on Yoga Therapy sometime in 1978. The Chief Guest, Swami Chinmayananda gave an inspiring talk in which he extolled the virtues of Yoga as a method for transcendence and sternly - but mildly and lovingly - chided the Organizer (!) for stopping at therapeutic applications of Yoga.
- 2 J. V. Basmajian, "Therapeutic Exercises", William and Wilkins, 5<sup>th</sup> Ed, 1990; see especially a chapter by F. A. Harris, "Facilitation Techniques in Therapeutic Exercise". This is a most fascinating account of understanding the physiology of TE which could be tailored through Yoga asanas.
- 3 Carolyn Kisner, Lynn Allen Colby, "Therapeutic



exercise: foundations and techniques”, 5th ed. F. A. Davis Company, NY, USA, 2002.

**TABLE 1:**  
**THERAPEUTIC EXERCISE [TE] PRACTICES**

1. Muscle performance exercises: strength, power, and endurance training
2. Stretching techniques including muscle-lengthening procedures and joint mobilization techniques
  - a. Neuromuscular control, inhibition, and facilitation techniques and posture awareness training
  - b. Postural control, body mechanics, and stabilization
3. TE exercises
  - a. Balance exercises and agility training
  - b. Relaxation exercises
  - c. Breathing exercises

**TABLE 2:**  
**THE GOAL OF REHABILITATION**

1. Facilitation: Weak muscles must be strengthened

2. Inhibition: Decrease strength of contraction of rigid and spastic muscles
3. Smoothing: tremor must be reduced and smooth control of muscle achieved

**SOME TECHNIQUES**

1. Facilitation: Single quick stretch and maintain the stretch
2. Rate of stretch is important:
  - For facilitation: Fast stretch is required
  - For Inhibition: Very slow stretch & sustained stretch; the stretch receptors adapts to stimulus

**ASANA PRACTICES**

1. Both facilitation & inhibition could be achieved through asana practice
2. Bilateral symmetric asanas are important since learning is possible through connections between hemispheres of brain
3. Spatial location of limbs in asanas through teacher feedback and use of mirror is important.



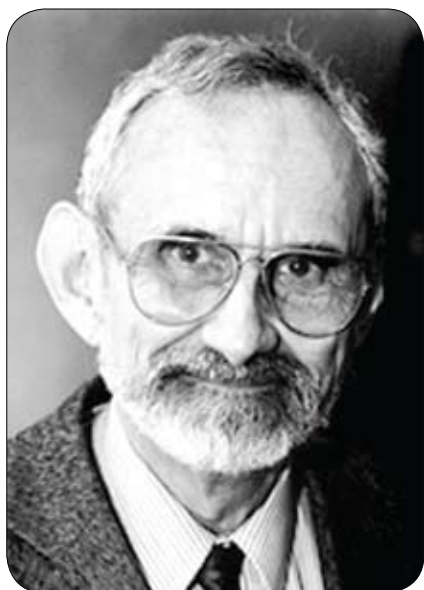


# Buckminsterfullerene and The Fullerenes

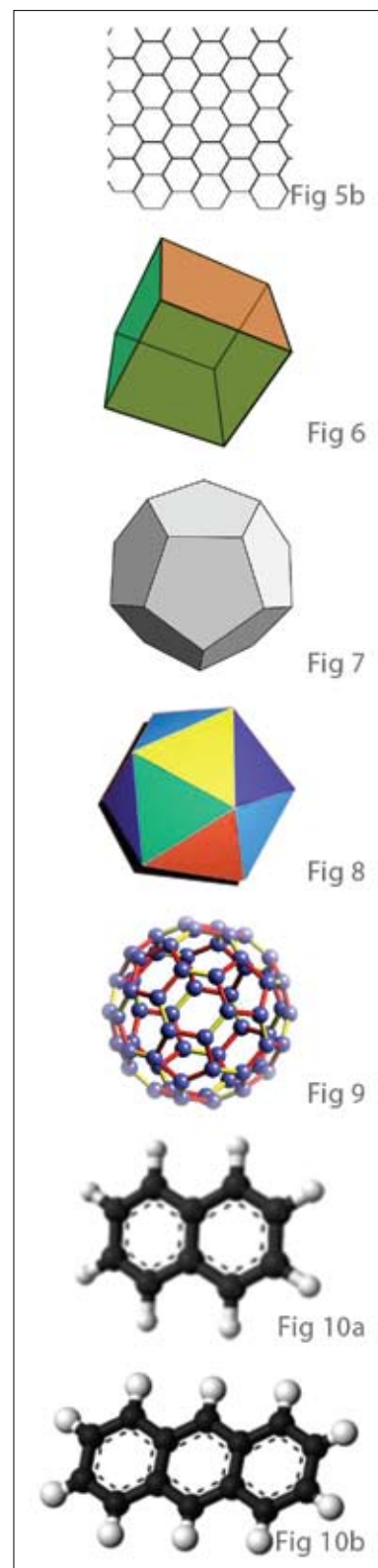
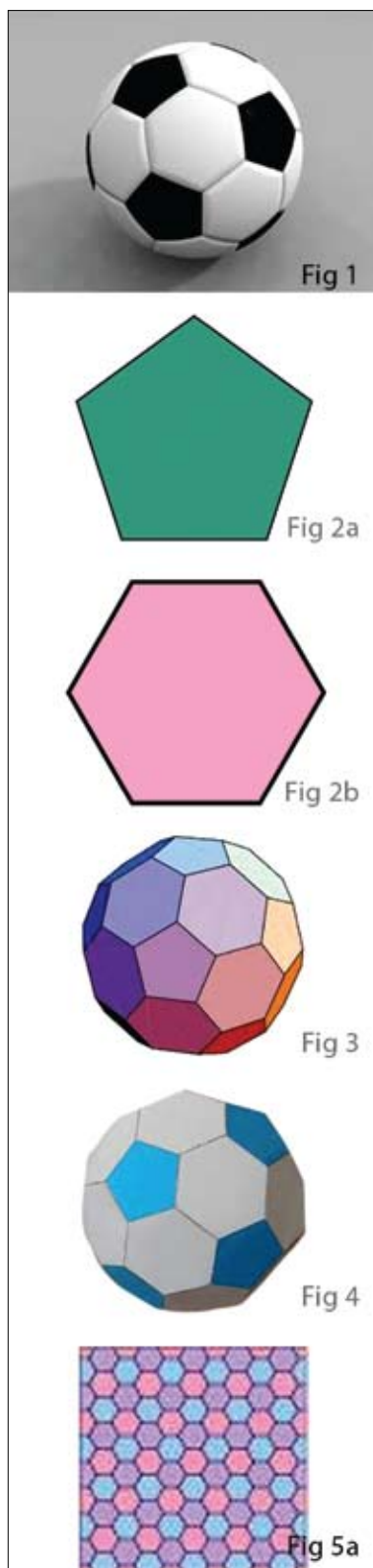
■ Prof. Alex Hankey, S-VYASA

When Dr Nagendra visited Houston in August, 2013, he met with Professor Robert Curl at Rice University, who received the 1996 Nobel Prize in Chemistry for he and his colleagues' synthesis of the remarkable carbon molecule named after the great architect Buckminster Fuller. Buckminsterfullerene is a football-shaped, molecule (see Figure 1) made of 60 carbon atoms, shaped into a polyhedron made of pentagons (Figure 2a) and hexagons (Figure 2b), each carbon being at the corner of a pentagon, joined by two hexagons (Figure 3). Being shaped rather like the geodesic dome proposed by Buckminster Fuller, it possesses extreme strength, and possessing great symmetry, it is chemically extremely stable and unreactive.

That indeed was what led to its discovery and characterization: extreme heat pulses applied to the end of a graphite rod led to the formation of many pure carbon



Prof. Robert Curl





molecules with even numbers of carbon atoms in the range 50 to 80. Under certain destabilizing conditions, the only remaining peak was at  $C_{60}$  (the next most stable was  $C_{70}$ ), indicating that this was a molecule of great stability and symmetry with no dangling ends. The various similar molecules were named 'Fullerenes', but  $C_{60}$  was named Buckminsterfullerene. Its combination of pentagons and hexagons form an entirely fascinating structure (Figure 4).

If it was made only of hexagons like a honeycomb (Figure 5a) or chicken wire (Figure 5b), it would be flat with each vertex being a meeting point of 3 hexagons - the interior angle of a hexagon is  $120^\circ$ , so three add up to  $360^\circ$ . However, the interior angle of a pentagon is only  $108^\circ$ ,  $12^\circ$  less than  $120^\circ$ , so the total interior angle at each apex of Buckminsterfullerene is only  $120 + 120 + 108 = 348^\circ$ : there is a 'missing angle' of  $12^\circ$ , which would have to be added to make the apex flat. For a sphere, or any closed shape like a cube (Figure 6), the total missing angle is  $720^\circ$  - a cube is missing  $90^\circ$  at each of 8 vertices totalling  $8 \times 90 = 720^\circ$ . With only  $12^\circ$  missing at each vertex, 60 carbon atom vertices are required to make up the total missing angle of  $720^\circ$  so that the form of the polyhedron is closed. That is one reason why the formula is  $C_{60}$ .

Since a pentagon has five corners, the 60 carbon atom vertices can form 12 pentagons - the same number as in a dodecahedron (Figure 7). Each pentagon is surrounded by 5 hexagons (see Figure 3), while the six sides of each hexagon consist of 3 pentagons alternating with 3 hexagons (see Figure 1). The number of hexagons is therefore  $15 \times 5/3 = 20$ , the same as the number of triangles in an icosahedron (Figure 8) - the Platonic solid *dual* to the dodecahedron i.e. with a face where the dodecahedron has a vertex, and a vertex where the dodecahedron has a face. The shape of Buckminsterfullerene is intermediary between the dodecahedron and the icosahedron. It may be constructed by 'truncating' (slicing off) the vertices of an icosahedron, thus transforming

the triangular faces into hexagons.

How could chemists possibly synthesize such a molecule? The answer is with difficulty, and much at random. An extreme energy source like a laser or an extreme electric current is directed into a graphite rod, vaporising the carbon atoms, which condense into many pure carbon shapes, some of which are perfect  $C_{60}$  molecules, or those with carbon atoms added or subtracted two at a time. These can condense as a new form of pure carbon, neither graphite (like Figure 5b) nor diamond. Though first claims for their 1985 discovery were hotly contested, eventual synthesis in large amounts in 1990 led to their proposed structure being accepted. It was for their synthesis of this new form of pure carbon that Professor Curl and his collaborators received their Nobel Prize in Chemistry in 1996.

Chemically speaking, each carbon atom vertex in Fullerene can be visualised as having a single bond down each side of its pentagon and a double bond down the side joining the two hexagons (red and yellow respectively in Figure 9). This means that each hexagon contains three double bonds and forms a benzene ring - though the dihedral angle between the planes of the benzene rings,  $138^\circ 11'$ , means that their  $\pi$  electrons do not overlap as perfectly as in naphthalene (Figure 10a) or anthracene (Figure 10b) where the 2 and 3 rings respectively are all in a plane. The cyclopentene pentagons therefore have delocalised  $\pi$  electrons surrounding them too. Fullerene is thus a very remarkable molecule in that its almost spherical shape is evenly surrounded by delocalised  $\pi$  electrons. This explains both its extraordinary chemical stability, and why one of Curl's original hopes for his molecule was that it would prove the starting point for the synthesis of very strong polymers - carbon fibres of immense strength and vast potential applications. His 1996 Nobel lecture on Fullerenes is well worth reading.

[http://www.nobelprize.org/nobel\\_prizes/chemistry/laureates/1996/curl-lecture.pdf](http://www.nobelprize.org/nobel_prizes/chemistry/laureates/1996/curl-lecture.pdf) ■



## *Reconciling Common Sense and Research*

■ *Dr. Usha Kathyayani*



The last few decades have seen a rise in awareness all over the world about yoga in general and yoga therapy in particular. This growing interest in understanding the health benefits of yoga has led to more and more research being conducted to understand its mechanism of action.

The general public sees asana, pranayama and to some extent dhyana as yoga, while the research field is engaged in finding out which among these is the one that actually gives the result. This is similar to attending a wonderful musical concert and then trying to understand what it was that actually gave that feeling of joy while listening to the music. Was it the singing, the tabla or was it the sitar? A researcher comes in and separates each of the audio tracks in an effort to reach the source of the feeling of joy. He may come up with some answer. But will the result that is obtained from such an exercise give the real picture? If such research sounds

illogical, then can we justify research that tries to pinpoint which asana, pranayama or dhyana practice in particular is more or less beneficial in different disorders?

Over the centuries, research has helped us overcome seemingly insurmountable problems. Food scarcity has been reduced by increasing yields, epidemic diseases have been controlled to a great extent and longevity of life has been increased. Research has in fact given us new insights into hitherto unknown domains in almost every sphere of life. But in the name of making research rigorous and scientific, somewhere along the way, sometimes common sense has been sacrificed. Anything that is not proven in a laboratory or by clinical trials is not accepted even if people have lived by it for thousands of years and it seems to be common sense. A case in point being the research that was done about 50 yrs back on the usefulness of the



constituents of food. It found that carbohydrates were very rich in energy, proteins were building blocks and at the same time was unable to find the role fiber played in nutrition. This resulted in refined foods from which all fiber had been removed. The end result was that people started suffering from digestive complaints, obesity and other lifestyle disorders. Later research showed that fiber was an essential component which helped in slowing the digestion process and thereby the rapid release of energy into the system. Though we now have the benefit of hindsight while analyzing such experiments, incidents like this show us that we should not hasten to condemn something we do not fully understand, as useless.

Why this is important is because this is the general attitude shown towards all things traditional while what comes from modern science is accepted more easily. If modern science says that ghee is not good for health, we reject it immediately, failing to see that ghee has been an integral part of Indian diet for thousands of years and Ayurveda has advocated the use of ghee on a daily basis. What caused problems was the quantity of ghee that was consumed, not the ghee itself and hence moderation was the answer, not avoidance. Anything which is taken to extremes is bound to cause problems. Common sense tells us this and research also has to take these aspects into consideration.

Positive Health and disease prevention is another area where common sense has taken a back seat. More money is spent on research for managing diseases in an effective way than for preventing such diseases and inculcating healthy habits in the population. Though the blame for this lies mainly with the pharmaceutical industry, the government is equally responsible for it by not investing more in research in preventive medicine. That it requires research to convince

people to eat properly and moderate lifestyle, so as to have a long and healthy life is itself ironic.

Research in Yoga and Ayurveda and indeed in all holistic systems cannot be done according to the standards set by modern science which looks at a constituent in isolation, ignoring all the associated things that are integral to it. The former systems look at an individual as a whole, not reducing him to his parts- hormones, genes etc. Therefore their treatment also is for the individual as a whole- mind and body together. When the individual is treated like this, then automatically the hormones and genes will get set right. Trying to target a specific organ or chemical in the body is required for certain conditions but cannot be applied to all diseases, especially to lifestyle diseases. But modern science seems to be engaged in targeting smaller and smaller components and hoping to set the individual right. This will only lead to better disease management not positive health.

Holistic systems like Yoga and Ayurveda must therefore form their own standards for conducting research which are as rigorous as the ones set by modern science, instead of trying to adapt themselves to standards that can never be applicable to them because the fundamentals of these systems are different from that of modern medicine. This is one of the major reasons why these systems have not been able to establish themselves with scientific validity in spite of attempting to do so for several decades now. For example, any research into yoga must necessarily include all the aspects of yoga and see the cumulative effect on the person as a whole. Not by going piecemeal, seeing which asana done how many times gives more benefit. And it must not be forgotten that yoga as a whole includes Jnana yoga, Bhakti yoga and Karma yoga along with Raja yoga of which asana, pranayama, dhyana etc are constituents.



The Integrated Approach of Yoga Therapy is one such encapsulated form that can be taken as a bench mark for research.

Ayurveda does not give one medicine for one condition to all individuals like how paracetamol is given for fever. Therefore it cannot conduct research in this manner. Many aspects like prakruthi (constitution of the individual), desha (place), kala (time) etc are to be taken into consideration. The drugs of Ayurveda are also meant to be used as whole parts –root, bark, leaf, fruit etc. Separating the individual constituents and trying to find the constituent that ‘works’ is an exercise in futility. They may discover a constituent A that gives the effect desired and separate it by neglecting a constituent B that was helping A work better or negating the ill effects of A. The results of the drugs must also be observed on disease mitigation as a whole not by seeing its effect on a particular chemical in the body. Only research done holistically in this way will be meaningful.

It is not that traditional systems haven’t undergone research. The knowledge base of

these systems is a result of thousands of years of experience, experimenting and learning. And the results are freely available to anyone who is interested. To say that these systems haven’t undergone research implies that the ancient seers were negligent and unscientific. Taking an unbiased look at our scriptures proves to us that nothing was taken for granted. The seers analyzed themselves and their surroundings critically and shared the results of their learning only after they had proved it thoroughly. That’s why these systems have stood the test of time and are still valid today.

However, the foundation of modern research is also sound and it is necessary to follow the time tested patterns that have been set by the eminent scientists who have gone before us. But let us choose what applies to us, disagree amicably on the points that we differ on and establish guidelines that in the end will prove to be beneficial to all. And finally let us choose common sense over research that contradicts it, which may anyway be refuted again by another researcher one day. ■



Yoga Instructors' Course (YIC), 138<sup>th</sup> Batch, August, 2013



## MEANS and GOAL

■ *Dr. K. Subrahmanyam, Dean, Division of Yoga & Humanities, S-VYASA*

I was in Chennai and I was to go to Hyderabad. The flight was at 2 PM and the journey time was only one hour. From the city I went to the airport well within the time with my wife, children and grandchildren. Even while taking the boarding pass I was told that the flight was on time. Somebody with a gift pack and cash was waiting for me in Hyderabad airport. It was not a small gift and the cash was also not a small amount. That gentleman was to fly from Hyderabad to London at 3:45 PM. That means if my flight was on time, I could meet him, take the gift and cash and see him off. But after getting the boarding pass the announcement indicated that my flight was delayed by about 25 minutes. Even then it was not a big problem because I still had the hope of meeting my gift-giver. But I was restless. I did not want any further postponement. I was praying to gods that there should be no further delay. Meanwhile, one of my grandchildren asked for ice cream and I was irritated. Though I bought it and gave it to the child, my anxiety was visible. After all, the child had no compulsions, nor did it have

any sense of urgency to reach Hyderabad. My wife was looking at one of the travellers in the airport and showed me the special diamond necklace put on by her. I was not in a mood to look at the lady, nor was I interested in the aesthetic sense of admiring the jewel. On the other hand, I was tension-ridden. All the while I was praying to God that there should be no further delay. Amidst my prayers, coupled with anxious moments, my wife's attempt to draw my attention was unbearable. I shouted at her. I could not be cool and peaceful. In the shop nearby, there was a toy train spotted out by my granddaughter. She was pulling me to the shop for buying the toy train. I was not only reluctant but also angry with her, because my mind was praying to God with anxiety that there should be no further delay of the flight. About half an hour to 45 minutes I was restless, devoid of all peace. I was like a person bitten by a scorpion. The tension was mounting up. By God's grace the announcer said that the aircraft was ready for our boarding and I felt relieved. 45 minutes of my waiting and praying was unbearable and





insurmountable. The flight time was only one hour and the aircraft once takes off cannot delay in the midair.

We all boarded the aircraft. But somehow they were delaying to close the main door and takeoff. One of the passengers had not yet boarded the aircraft. Repeatedly they were calling out his name to board the flight immediately. I was getting irritated. Earlier I was unhappy and angry with my own family members for disturbing me and irritating me. Now, I was unhappy with the irresponsible traveller who did not arrive in time to enter the aircraft. Because of him other passengers were getting delayed. I was praying again and again that the delaying traveller should join the group immediately. Everybody appeared to be unfriendly sitting on my nerves. Two more minutes for the aircraft to takeoff. If it took off at least then, I was sure of meeting my man. The two minute time was very tortuous. I was restless again and again and tension-ridden. Luckily the door was closed and the aircraft took off relieving me of my tension. Now I was sure to arrive in Hyderabad on time and meet my man. When I was comfortable and relaxed, the grandchild sitting next to me asked me for some cool drink to be bought from the vendor in the craft. With all affection and endearment I bought it and gave it to her. My wife noticed some co-passenger's sari to be very beautiful and she drew my attention to it. I looked at it and admired it wholeheartedly.

Whatever activities I was engaged in, in the Chennai airport while waiting for the aircraft, were repeated in the aircraft while flying. But there was a lot of difference between them both. Every action that was painful, agonizing and unwelcome in the airport turned out to be pleasing, admirable and welcome in the aircraft. While waiting for the aircraft I was like a non-Yogi discharging my duties with restlessness and anxiety. But while flying I was like a Yogi, cool and quiet, comfortable and peaceful doing the same activities happily.

If only we take to any of the four Yogas, we are sure to be relieved of all tensions in life. It is the aircraft that takes me to the destination. And it is also the aircraft that relieves me of my tensions. Similarly, if we take to the path of devotion, everything and everybody will be lovable and loving. If we take to the path of knowledge, there will be no fear and anxiety. If we take to the path of Karma Yoga, we do our duties delightfully. Raja Yoga is the royal path of grandeur and glory taking us to the top without any difficulty on the way. Connecting ourselves to the Yogic life is essential. The moment I boarded the aircraft and it took off, all my problems ended. Yoga means to connect oneself with the Yogic life. And there are two advantages of taking to the Yogic life. One is, we lead a restful and peaceful life, and the second is, we feel safe and secure in reaching the destination (Moksha). Swami Vivekananda therefore proposes that every individual should at the earliest take to the life of a Yogi so that all problems and difficulties disappear. ■




**Creative Camera**  
*Muralidhara H D*



**Ever Blossoming  
Beauty of Nature**







## BANARAS HINDU UNIVERSITY

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**वैदिकदर्शनविभागः**  
**संस्कृतविद्याधर्मविज्ञानसंकायः**  
**काशीहिन्दूविश्वविद्यालयः**

**अग्निनन्दनवाक्**

महतोऽयं हर्षस्य विषयो यत् बैंगलूरस्थ-  
स्वामिविवेकानन्दयोगविश्वविद्यालयस्य विद्वांसः कुलपतयः आचार्याः  
रामचन्द्रगणपतिभट्टमहाभागाः काशीहिन्दूविश्वविद्यालयीय-  
वैदिकदर्शनविभागेन समायोजिते विशिष्टव्याख्यानप्रसंगे समागत्य  
“अध्यात्मयोगः” इति विषयं केन्द्रीकृत्य  
प्राच्यपाश्चात्योभयदृष्टिपुरस्कारेण अनितरसाधारणवैदुष्यपूर्णं प्रवचनं  
प्रास्तुवन् । एतद्विश्वविद्यालयसंस्थापकानां महामनसां  
पंडितमदनमोहनमालवीयमहाभागानामपि एतादृशी एव  
चर्चासरणिरभिप्रेताऽऽसीत् ।

आचार्यभट्टमहाभागानामुपन्यासेन विभागीया विद्वांसः सर्वेऽपि  
महान्तं मोदमन्वभवन् छात्राश्च नितान्तमुपकृता अभूवन्निति  
विभागपक्षतोऽहमेतेषामाधमर्ण्यमाविष्करोमि, उभयोः संस्थयोः  
शैक्षणिकविकासार्थं तत्रभवदिभरुकृतानां प्रकल्पानां शीघ्रं क्रियान्विततां  
चाशासे ।

भवदीयः  
राजाराजशुक्लः 3-3-13  
प्रो. राजाराजशुक्लः  
विभागाध्यक्षः  
वैदिक दर्शन विभाग  
संस्कृतविद्याधर्मविज्ञान संकाय  
काशी हिन्दू विश्वविद्यालय, वाराणसी-221005

Vice-Chancellor,  
Dr. Ramachandra G Bhat  
at Banaras Hindu  
University campus was  
honored by Vidvan  
Rajaram Shukla, Dept. of  
Vaidika Darshana, BHU





Recently, a National level Yoga Conference held in Aliyar, Coimbatore. In that, Dr. R Nagarathna & Dr. Raghavendra Bhat represented S-VYASA. Dr. R Nagarathna gave a lecture on 'Yoga Research for Holistic Health'.

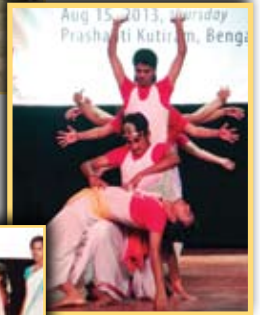




# Festivals Celebration in Prashanti



Aug 28 - Sri Krishna Janmashtami



Sept 8 - Swarna Gowri Vrata



Sept 9 - Varasiddhi Vinayaka Vrata



Akash & Manasmita Kids at Bhagavad Geeta Contest



**Dr. H R Nagendra**  
accompanied by  
**Prof. Alex Hankey**

Advising  
VYASA Centers in the USA

Over a three week period from 16<sup>th</sup> August, S-VYASA Chancellor, Dr H.R. Nagendra made a promotional tour of the USA to popularise and promote VYASA International and its academic programs. This is being accomplished by establishing International Information Centers (IIC's) to promote S-VYASA programs, both in residence at the Prashanti Kutiam Campus south of Bangalore, and by offering courses through its Directorate of Distance Education (DDE). In all, the tour visited 14 cities in 10 states, including California, Texas, Florida, Virginia, Maryland, Delaware, Pennsylvania, Massachusetts, New Jersey and New York State.

To promote the knowledge offered by S-VYASA, Dr Nagendra gave many sample lectures and workshops, including major presentations on the Yoga Vasishtha, and a one day workshop on the Yoga Sutras. Dr Alex Hankey, who was accompanying him, gave shorter talks on Jyotish Astrology Research at S-VYASA and how the process of Optimizing Regulation allows the Jyotish *grahas* to influence the physiology differently at different times. At the same time meetings were held to expand research programs, for example for the flagship Yoga and cancer research programs at MD Anderson Cancer Center in Houston Texas, and to seek more funding for Yoga research with



With Dr. Bethany Bechtel and family, Gainesville



With University of Southern California's Prof. Madhu Thangavelu & his wife

individuals, and at the National Institutes of Health (N.I.H.) in Washington D.C. Contact was made and previous relationships developed with many influential people, some to recruit as distinguished speakers for the 20<sup>th</sup> INCOFYRA conference to be held in January 2014.

### WEST COAST

The tour started in Los Angeles on 16<sup>th</sup> August, where their host in the beautiful township of Cerritos was experienced Yoga instructor, Chakrapani, who had organized a full schedule of lectures and meetings for almost a week, including Stop Diabetes Movement lectures at local temples. Chakrapani has run many Yoga Instructor courses, training countless teachers of S-VYASA's Integrated Approach to Yoga Therapy (IAYT). Chakrapani's fellow IAYT instructor is conducting a PhD project on Yoga for irritable bowel syndrome. This is one of the major new research projects being developed in the US and sets a benchmark for all those who wish to conduct research on Yoga in the US.

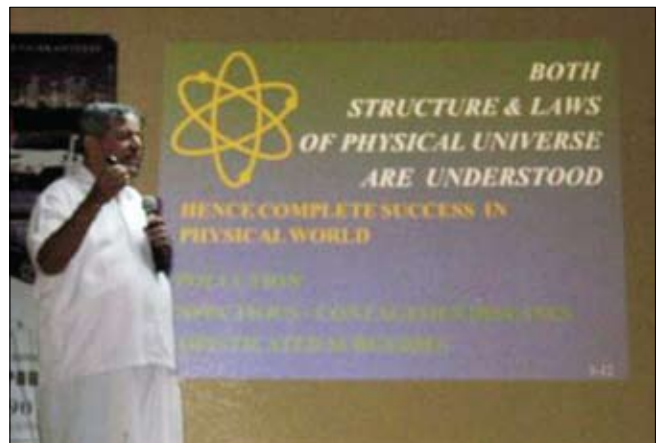
Chakrapani also organized meetings at the International Headquarters of Bikram Yoga. The possibility of their Yoga teachers gaining accredited degrees in Yoga through VYASA International Programs was explored. Dr Nagendra gave lectures at various temples on the Yoga Vasishtha, and significant meetings were held at the University of Southern California (USC), with minority community leaders in Watts, and with leaders of several religious

groupings including a large and beautiful new Swami Narayan temple.

At USC, the emphasis was on how students in religious studies might spend time in India, and participate in Yoga instruction in SVYASA, through collaboration between the two institutions. The possibility of joining forces with the Department of Integrative Medicine at USC medical school was also touched on. In Watts, the section of the city notorious for alienation of its black population and riots in the 1960's, a meeting with Native American leaders explored how courses on IAYT might improve the life of the population, particularly those suffering from stress and continuing social pressures from living in the area.

A side-trip to Bakersfield, at the south-east end of California's central valley, gave further opportunities for lectures at a local temple, and discussions with host, gastroenterologist, Dr Ramesh Gupta, and his family. The possibility of a student coming to study at S-VYASA for a year of his PhD studies on a prestigious Fulbright Scholarship was explored in depth.

The next stop was in Cupertino in the south San Francisco Bay Area. Dr Nagendra gave a major lecture presentation on the first evening, and a workshop on the second. The first was held at a temple near San Jose, and the second in a Hindu community center. During the days, visits were made to establish ties with local spiritual



Guruji lecturing on Yoga & its Applications



Prof. Alex Hankey lectures about the Scientific Experiments on Jyotish

organisations: one an offshoot of Paramahansa Yogananda's Self-Realization Fellowship, and another founded by Swami Haridas, who has maintained *maunam* (spiritually oriented silence) for many years, in his beautiful ashram on Skyline Drive in mountains south of San Jose.

### THE SOUTH

The team then flew to Houston, Texas, where the local IAYT Yoga teachers worked hard to carry them from meeting to meeting. First was at MD Anderson, the world's largest cancer hospital, where we met with its highly reputed and distinguished Professor Lorenzo Cohen in the Department of Integrative Medicine, presently conducting experiments establishing

the value of IAYT in improving quality of life in Breast Cancer patients receiving radiation therapy. The team also met a senior biochemistry professor thinking of retiring to India, and now considering working at SVYASA in retirement.

That evening was the occasion of a lecture presentation by Dr Nagendra, made very special by Professor Lorenzo Cohen's introduction -- deeply heart-felt and appreciative for having been able to learn and directly see the power of Yoga applied to medical conditions. Though he had started with Tibetan Yoga, and was still conducting experiments on the value and efficacy of that modality, he confessed that he had been astonished at the power of SVYASA's IAYT to improve patients' quality of life and well-being, and was deeply appreciative of the chance to work with its founder, making many suggestions for the kind of programs to which the work might be extended both at MD Anderson and elsewhere.

The following day included a morning Cyclic Meditation workshop kindly hosted by the Art Museum in its park, and a mid-day inauguration of the next IAYT teacher training program being held at Star Pipe Products, where the owner is a keen supporter of Yoga Medicine. Later, a major Indian philanthropist in Houston, an advisory board member of Rice University, who is also



Guruji leads an open-air Cyclic Meditation Workshop in the park at Houston's Museum of Fine Arts



Dr. Nagendra discusses the future of Yoga & Cancer Research with MD Anderson's Prof. Lorenzo Cohen

a keen supporter of SVYASA, spontaneously arranged one of the most exciting meetings of the trip - with Rice University's Professor Emeritus, Robert Curl, recipient of the 1996 Nobel prize in Chemistry. Professor Curl had been awarded the prize for his contributions to the elucidation of fullerene molecules named after Buckminster Fuller, the famous architect and designer of 'Geodesic Domes'. The prime example of a fullerene is the molecule with chemical formula C<sub>60</sub> shaped like a prototypical modern football, or 'Bucky Ball', and now named Buckminsterfullerene (see article on page 22).

Like Los Angeles and San Francisco, Houston will have its own VYASA International Information Center (IIC) recruiting students for academic programs, either to come to Prashanti Kutiram, or to attend local Distance Education programs over longer time periods, The enthusiasm of the people the team met for these projects was palpable and we very much look forward to working with them in future.



Dr. Nagendra & dignitaries released the new version of the book 'Yoga for Common Ailments' in India House, Houston

*During Guruji's visit to Yoga Bharati, Bay Area Chapter, Chapter In-Charge Smt. Ashwini Surpur got spirited & delivered a song*

They have a dream  
 To fulfill a dream  
 The dream of great men and women  
 The dream of Christ and the Buddha  
 The dream of the Paramahamasa  
 The dream of the sages of the Vedanta  
 The dream dreamt 50 years ago  
 The vision seen 150 years ago  
 The dream of the human excellence with no ego  
 In Prashanti, the hallowed spot  
 The palace of justice and tranquility  
 They have a dream...

We have come to cash a check  
 Of the architects of Vedanta  
 Who spoke magnificent words  
 The constitution of spiritual freedom  
 And the declaration of inner Independence  
 A Promissory note to every Human to fall Heir  
 All men - black or white, brown or blonde;  
 The bank of Vedic wisdom  
 That is ever full and never bankrupt;  
 The great vault of spiritual grandeur  
 That is ever open and never shut;  
 Free for all, let us cash this check  
 Let us have a dream

They have a dream  
 They are walking their dream  
 They cannot walk alone, not for long  
 May we dream their dream  
 And walk along and dream along  
 Of reaching majestic heights  
 On the high plane of dignity and discipline  
 Meeting physical force with soul force  
 Amidst trials and tribulations  
 Spreading the message of peace  
 From the sages of the East  
 To every hill and mountain  
 Unmindful of the mountain of despair  
 Changing it into a stone of hope  
 Until we are free at last - free of desires!  
 Jai Martin Luther King Jr!



1<sup>st</sup> September was spent in Florida, based on Tampa for a day of significant meetings near Gainesville, location of the University of Florida. The first was with Mickey Singer, scientific inventor, genius and philanthropist who has been very supportive of S-VYASA in recent years, and whose book, *The Untethered Mind*, recently reached No 1 on the New York Times best seller list. The book is all about successful meditation. It focuses principally on maintaining an attitude of detachment from the vagaries of the mind, just watching thoughts as they come and go, and not following them. By continuing to let go, and let go -- of all thought and tension - one eventually becomes aware of the nature of one's inner freedom, in which the mind and soul are unbound, and in which one can sit stably for arbitrary periods of time in a state of pure happiness, allowing stress (*sanskaras*) to slowly unwind. In speaking about this state of witnessing thoughts and remaining in bliss, Singer's hand movements indicated that one should witness the mind's activity from above and behind the head, i.e. from the place where western religious painters traditionally depict saints' halos. Singer is a very highly realized soul who, having made a great fortune when he was younger, lives his life in service to the wider community.

A delicious lunch was provided by Bethany an IAYT trainer and teacher in Gainesville itself, after which, the team moved to spend the afternoon with Yogi Amrit Desai, in his beautiful Yoga teaching center south of the city. Here Sri Raghuram, now Director of the Hindu University of America, came from his location in Orlando, Florida, to see Dr Nagendra. Extended discussions included a brief talk by Dr Nagendra summarizing the activities of S-VYASA in Bangalore, and the extent of present opportunities for Yoga practitioners to gain higher degrees and qualifications by signing up for VYASA International's Distance Education programs. It was agreed that Yogi Amrit Desai's organisation would collaborate in promoting this higher initiative in Yoga research and further education.

## EAST COAST

The following morning the team flew to Washington D.C. where it immediately departed for meetings in Hampton, Virginia near Norfolk, particularly with Dr Adarsh Deepak, founder of Taksha University, and Chairman of its Board of Governors. A very successful presentation on VYASA International was given by Dr Nagendra, and great interest was shown in our programs, with a resolution to explore collaboration between the institutions and their respective distance education programs. As in several other lectures of this kind, similar interest was also shown in the remarkable research on Jyotish astrology performed by Veterinary Scientist Dr Ramesh Rao, currently completing his PhD on the topic at S-VYASA. His work was again much talked about and questioned the following evening when the team gave a talk at a Durga temple south west of Washington, where they returned that afternoon.

The following day, 4<sup>th</sup> September, was the occasion for some of the most extensive meetings on possible funding sources for future S-VYASA research in the USA, particularly funding from the National Institutes of Health (N.I.H.). Hosted and guided by Dr Julia Arnold, a research administrator at the National Cancer Institute, the team met with Yoga research directors Dr Partap Khalsa of NCCAM in the morning and Dr Jeffrey White of NCI later in the afternoon. It transpired that a great change has taken place in the policies of NIH's various institutes. Whereas, some years ago, Yoga projects could only be funded through NCCAM, the success that such projects have achieved, especially in improving patient quality of life and appreciation for the therapeutic process, have led other institutes to be willing to fund CAM and integrative medicine research in their own fields. For that reason, Dr Jeffrey White, while admitting that compared to NCI's US\$6 billion per year annual budget his funds were small, was nevertheless in a position to consider applications for quite extensive research in the application of Yoga to various kinds of cancer, particularly considering the success achieved by Professor Lorenzo Cohen's group in Houston.



Guruji and Prof. Alex with Dr. Adarsh Deepak & his wife, Washington host Dr. Rajan Narayan and Dr. Dilip Sarkar

The following day, the team departed for Wilmington Delaware, driven by their gracious and indefatigable Washington host, Dr Rajan Narayan, who had taken them to and from Norfolk, provided sumptuous lunches, and organized all their lectures. Following meetings and a lecture in Delaware, the team moved to Philadelphia, Pennsylvania, where major discussions were held with Professor Selvan Senthamil, Associate Professor of Oncology at Jefferson University Medical School. Professor Selvan who has been collaborating with S-VYASA in different ways for some years, is keen to start a major research project in Yoga and cancer, possibly close to his family home in Southern California.

Dr Alex Hankey spent the first Philadelphia day on a side visit to the Centre for Indic Studies at the University of Massachusetts in Dartmouth, where he visited colleagues who founded the Light on Ayurveda Journal for which he serves on the editorial board, and which has recently published two of Dr Ramesh Rao's Jyotish papers. He gave a major presentation on 'Decoding Ayurveda' to their monthly Seminar series, which generated much interest in the wider programs offered by S-VYASA, including degree courses in Ayurveda and Naturopathy, as well as its Yoga Medicine programs. Decoding Ayurveda is the fruit of a 25 year research program and is still under extensive refinement and development. Identification of

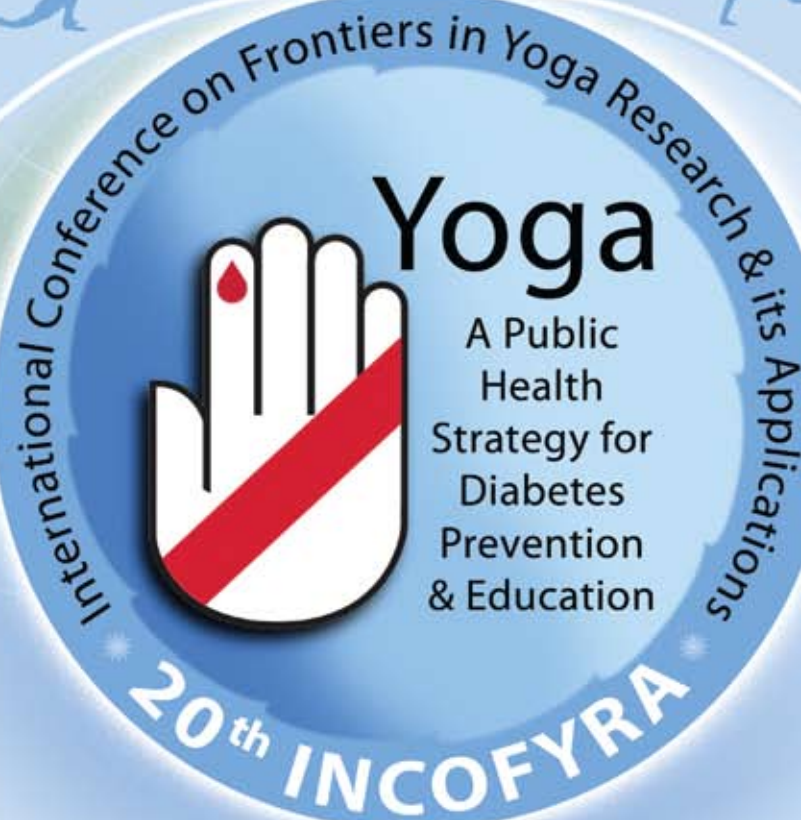
Ayurveda's state of balanced doshas as a state of optimal regulation, i.e. optimal health, in terms of complexity biology has far reaching consequences for all systems of medicine. It was much commented on.

On the second day in Philadelphia Dr Nagendra gave a major seminar on the *Yoga sutras* of Maharishi Patanjali, showing how they pertain to Yoga's concepts of the *panchakoshas*, or five sheaths covering the *atman*, or universal spirit in man, Vivekananda's

four paths of Yoga, and how they lead to the attainment of *Moksha*, or spiritual liberation. As at other venues, Chancellor Nagendra also gave brilliant accounts of Vivekananda's aspirations for the modernization of India, based on a revival of its ancient wisdom, and spoke of the new opportunities afforded by S-VYASA's DDE, encouraging those present to continue their study of Yoga and its philosophy with S-VYASA, either in the US, or in India itself.

The last day in the US, 8<sup>th</sup> September, the team spent in visits to New York City's suburbs on Long Island and in New Jersey prior to their night time departure for India via Dubai. Excellent discussions were held with Dr Julius Garvey, ex-Director of Long Island Jewish Hospital and its 13 associated institutions. Dr Garvey, a well-known surgeon was very receptive to S-VYASA's Yoga research results, and willing to pursue further discussions. It was evident in this and other meetings that appreciation of Yoga is reaching new, high levels throughout the United States. Wherever the team went, West, South or East, high level professionals wanted to listen to accounts of research, and to discuss future applications to solve the massive health problems produced by the pandemic of non-communicable diseases. There is surely a future for a US Stop Diabetes Movement, through applications of Yoga, and top doctors are now willing to welcome this as a timely initiative to improve public health. ■

*In Commemoration of 150<sup>th</sup> Birth Anniversary of Swami Vivekananda*



International Conference on Frontiers in Yoga Research & its Applications

# Yoga

A Public Health Strategy for Diabetes Prevention & Education

20<sup>th</sup> INCOFYRA

## 20<sup>th</sup> International Conference on Frontiers in Yoga Research and Its Applications

THEME

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Jan 2 - 5, 2014

Prashanti Kutiram, International Headquarters of VYASA, Bengaluru

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Vivekananda Yoga Anusandhana Samsthana (VYASA), Bengaluru

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## CONFERENCE PROGRAMS @ A GLANCE

DATE	PROGRAM
June 21, Sept 11 & Nov 14; 2013	Pre-Conference Programs (All over the world)
Dec 26-30, 2013	Spiritual Retreat by Swami Dayananda Saraswati ji
Dec 27-31, 2013	Pre-Conference Workshops
Dec 27-29, 2013	Himalaya Olympiad
Jan 2-5, 2014	Main Conference
Jan 6-10, 2014	Post- Conference
Jan 2-10, 2014	Arogya Expo: Health Exhibition

## CALL FOR PAPERS

Scientific research papers and review papers on the theme and related topics in yoga are invited for oral / poster presentations.

Last date for submission of Abstracts	Sept 30, 2013
The Papers will be peer reviewed and acceptance or otherwise will be intimated before	Oct 15, 2013
Last date of submission of Full Papers	Dec 1, 2013

- Send your abstracts to **incofyra20@gmail.com**

## CONFERENCE REGISTRATION

Register earlier before July 30<sup>th</sup> to gain maximum concession

Individual Programs	Dates	SAARC Centers	
		Before Oct 10 in ₹	After Oct 10 in ₹
Pre-Conference	Dec 27-31, 2013	7,000	9,000
Main Conference	Jan 2-5, 2014	3,500	4,500
Post Conference	Jan 6-10, 2014	7,000	9,000
All 3 Programs	Dec 27, 2013 & Jan 10, 2014	12,500	15,000
Day Rate for Conference		1,100	1,500
Special Event	Jan 5, 2014	500	700

- Includes Boarding and Lodging in shared accommodation and special event. Students can get 50% Reduction.
- A/C Name: Vivekananda Yoga Anusandhana Samsthana; A/C No: 31004780111; Bank & Branch: SBI, Jigani; IFS Code: SBIN0011355
- Payment by Cash or DD payable to 'Vivekananda Yoga Anusandhana Samsthana' (VYASA)

## FOR MORE DETAILS CONTACT

- Organising Secretary: Dr Hemant Bhargav | cell: +91 87620 19348
- Address: The Manager, 'Eknath Bhavan', #19, Gavipuram Circle, Kempegowda Nagar, Bengaluru - 560 019  
ph: +91-80-2661 2669 | telefax: +91-80-2660 8645 | e-mail: incofyra20@gmail.com

## CONFERENCE OBJECTIVES:

1. Disseminate research findings in the field of Yoga for Diabetes Mellitus and give directions to future research
2. Provide the evidence required to integrate Yoga therapy with conventional care for diabetes mellitus
3. Establish national and international working groups comprising universities, health care providers and policy makers to initiate collaborative research programs
4. Enhance health care provider - industry partnerships to develop programs integrating diabetes careproducts with those of yoga lifestyle
5. Thus, evolve and engage in a nation-wide Stop Diabetes Movement for diabetes prevention and education to unseat India from its deplorable position as the 'Global Capital of Diabetes'



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