

## **The Hypothesis : on prolonged fasting.**

This is unique. You will agree that such a prolonged continuous Jain fasting for religious (the spreading of Ahimsa and other high mottos) and scientific purposes (to create awareness about Sun-energy) and also aimed at a solution of four-way human crisis (Physical, Mental, food and neurological) under scrupulous daily medical supervision is unheard of. It's just fantastic, and absolutely amazing, but this is not a myth. It's not happening in Himalayas or distant jungles. It is happening in Ahmedabad, Gujarat (India) in the continuous presence of public and under strict medical check and supervision by expert doctor team.

There is no reason to be skeptical. One may personally come and check and scrutinize. We doctors have done all these months and fellow men have been staying with him all throughout. And also several visitors see him throughout the day and night. Mr.Hira Ratan Manek has completed 411 fasts successfully on 14th Feb 2001. It started from 1.1.2000. He was on total fasting as per Jainism. He was consuming boiled water daily only between 11 a.m. to 4 p.m. no other liquids and just no other food, No I\V or I\M injections. He was completely kept isolated while under strict observation.

Medical checkup commenced a few days before fasting program and continued till today. It consists of daily written record of pulse, blood pressure, respiration, temperature, water intake, urine output, weight etc. and relevant Hematological and biochemical (basic and few advanced) tests periodically i.e. monthly or fortnightly. ECGs are taken regularly, Ultra Sonography, EEG, CT.Scan and M.R.I. Brain have been taken at the end of one year and a team consisting of general practitioner doctors, physicians, surgeons, cardiologists, endocrinologist and a neurologist have been examining regularly and periodically from first day of fasting. Except for loss of 19 kgs weight, (which is now stable with no further weight loss for 3 months) a slight reduction of pulse rate and B.P. and definite reduction of respiratory rate (from 18 it is now 10/minute) amazingly, there is no medical abnormality. Even the brain and mental capacities are absolutely normal. There are hardly any findings. He has stopped passing stool after 16th day of fasting and urine output is maintained at around 600 to 800 c.c. His blood sugar is 60 to 90. There is no acetone. Rest all parameters are normal.

It is just amazing. Isn't it? But how do we hypothesize it? How does science look at it? As per science, under normal circumstances of prolonging starvation, (under accidental situation or extraordinary situation,) human being loses weight fast. First fat is utilized. Ketones appear in urine in first week. Then proteins are burnt. Before that, the person becomes dull, lethargic and irritable, his logic reasoning fails and vital parameters fall and within 8 to 10 weeks, as per science the physical existence will be challenged. Here there is no such ill effect. How do we explain this? How does his energy mathematics works? How he is still so intact with normal intellect, normal mental, function? Though so far there is no solid thesis (as this is the first event in the world under medical supervision), there has to be some logical, scientific hypothesis. It explains quite a bit, but also leaves few questions unanswered, for all of us to further analyze. It also opens, at the same time, several new avenues for the coming time to work upon it. (e.g. issue of obesity).

This hypothesis has four basic steps to explain energy-metabolic mathematics. i.e. (1) Reducing calorie requirement by chronic adaptation. (2) Deriving basic energy from cosmic source-chiefly, 'sun energy'. (3) Utilizing the energy in the efficient way and recycling the same in his body. (4) Genetically or phenotypically a different body disposition.

(1) Chronic Adaptation Syndrome: As the body and the mind adapts to chronic stress in a healthier way, as compared to acute stress, similarly body's adaptation must be different to chronic fasting (beyond 30 days) as compared to acute fasting (e.g. 3 to 15 days). No body knows which is the exact point, where body adapts chronically, but 30 days sound reasonable time though it may vary individually. This is some kind of hibernation, so to say. The routine calorie mathematics sounds logical and quite applicable to acute fasting where fats break up first, ketones appear in urine and weight loss starts; muscle mass reduces and vital functions and mental capacity may start slowing down. Thus in acute fasting, energy dissipated must come from stored sources of body to match 1:1 ratio of calorie consumption against utilization. In chronic adaptation; the metabolism of body must slow down. The body needs are reduced to the minimum. This is possible by down regulation of cellular and receptor function. There is thus altering the energy metabolism to the lowest possible. Oxygen and water are supplied to cells as basic things. At this stage, the hunger center will become depressed satiety center will be activated. So there will not be any feeling of hunger or food craving. It may be possible for such an individual to do routine activity

with very low amount of energy or calories as 500-600 calories, to sustain cellular metabolism.

(2) Deriving Energy from Cosmic source - Solar Energy: Whatever low amount of energy, that is required, must come from some source. He is only on boiled water-which as per science is having hardly any caloric value. or does it really supply some energy? Most likely, he is drawing energy from cosmic energy - Cosmic Sources. Hence more correctly it is energy mathematics rather than calorie mathematics; a concept worth understanding.

Out of all cosmic sources, the SUN is the most powerful and readily available source and has been used for energy, by sages and Rishis since ancient time, including lord Mahavir, Tibetan lamas and other Rishes. Again, how the SUN energy is received. The Brain and the mind are the most powerful recipients in human body. The retina and the pineal gland (the third eye or the seat of soul as per Rene Descartes) are equipped with photoreceptor cells and may be considered photosensitive organs. As plant kingdom thrives on chlorophyll and photosynthesis, directly dependant on the Sun, similarly some photosynthesis must be taking place when we hypothesize Sun energy.

Through complex ways and distinct pathways this energy must enter the body. There is a pathway from the retinas, to the hypothalamus, called the retinohypothalamic tract. This brings information about the dark and light cycles to suprachiasmatic nucleus (SCN) of the hypothalamus. From the SCN, impulses along the nerve travel via the pineal nerve (Sympathetic nerves system) to the pineal gland. These impulses, inhibit the production of Melatonin. When these impulses stop (at night or in dark, when the light no longer stimulates the hypothalamus) pineal inhibition ceases, and Melatonin is released. The pineal gland (or the third eye) is therefore a photosensitive organ and an important timekeeper for the human body. The unexplored process of energy synthesis and transformation from the sun energy perhaps partly occurs here.

While going through the details of recent scientific literature and also comparing it with ancient Indian spiritual texts, as well as western occult and new age, following things are apparent. The activation of pineal gland is the key step in psychic, spiritual and energy transformation processes. Here in this gland, energy processing and re-distribution occurs. Pineal gland is the

commander of all endocrine glands, therefore controlling the humeral system. It also regulates the circadian rhythm, sleep wake cycle and it also slows down ageing process. It has psychic properties and is the seat of soul or mind - so called the third eye. It is the Agna (Ajna) chakra of tantric system. Its activation can be done with prolonged yoga & meditation techniques or through practice of solar energy. The later does not use classic yoga steps. Pineal also inhibits growth & metastasis of some tumors. It has a stimulatory effect on the immune system. In birds and other animals, it has a magnetic material and is therefore the navigation center in birds.

Scientists are looking at magnetic, navigatory properties of pineal gland in humans. So pineal activation and charging through solar energy is the vital step and that is the doorway of energy highway. This may be Kundalini Shakti activation, in other words. Normal Pineal gland measures 6 x 8 mm in human body. As per C.T.Scan & MRI Scan reports of Mr. Hira Ratan Manek. it is 8 x 11 mm (enlarged !). This may indirectly support the important role of pineal gland in energy transformation. However it may be mentioned, that anatomically enlarged gland does not necessarily always mean hyper function.

Ever since mankind has started ignoring the psychically and Spiritually equipped pineal gland it has fallen on merely physical-material plane and endless pains have fallen on mankind. Mankind must now relearn to activate pineal and the other psycho-spiritual bodies either through cosmic energy dynamics or through practice of Rajyoga or the Tantric ways or other such practices. Kundalini Shakti is said to be activated through these and happiness and bliss with peace are bound to follow. This light energy may be transformed into electrical, magnetic or chemical energies in body. Once processed, this energy must be transported and must be stored somewhere. Actually the ultimate form of all energy is light. Energy and light can be transformed in to matter and back again to energy. Hypothalamus is the commander of autonomic nervous system and Pineal gland is in proximity to autonomic nervous system, so it is logical that new energy transportation may either activate this system or it may use this system as vehicle.

Parasympathetic nerves & its hormones & chemicals may be more useful than sympathetic system. As sympathetic system increases body needs ( e.g. thinking, fighting stress, excitement etc.), parasympathetic system is known to reduce the energy needs. It keeps the person serene and at mental peace

and alters the metabolic requirements to a lower state and puts it to sleep. There may be other hormones or chemicals too. The role of temporal lobe and limbic system also may be important. It may work as a regulator if not receptor and may be psychically involved in directing the energy in proper pathways. Deep into the limbic systems or in the parts of medulla oblongata, this energy may ultimately be stored and from time to time, may be recalled, charged or recycled. Medulla oblongata has all vital centers and therefore can be proposed as store of vital energy.

Thus there are energy receivers or receptors, processors analyzers, transformers, storers etc. to explain the energy logistics. As this form of energy mathematics is different from what we conventionally are used to in form of food and calorie mathematics; we will call this micro-food or mind utilization food (Manobhakshi Aahar {Ttu¼ûte ytnth}). Here, we have talked about the Sun energy, but one may use any source from the cosmos, i.e. air, water, plants, earth etc. This may be called Surya vigyan, but equally there is Chandra vigyan and Vanaspati vigyan as mentioned in our ancient texts.

Also apart from retina & pineal gland, skin and other senses may be responsible for receiving the energy. In short, this opens up tremendous possibilities. This micro-food can solve, food crisis on earth and in fact is the only possible food in present context for somebody who wants to be a long-term space traveler or planet traveler. Amazing! It is time to note, that our routine food is not the only source to sustain the body. The role of mind: What ever said, in this step, (i.e. the step II of deriving the energy from the sun and transforming it in body.) the mind may play the crucial role. It is well known that the mind has enormous capacity, (the soul has even further or infinite capabilities). Through Sun Tratak & Meditation, tremendous capacities are born which will bring tranquility to mind and also slow down metabolism, as mentioned in step I.

Mind can do every thing including so-called miracles. It can revitalize body, it can heal diseases, it can know things in advance and it can manipulate laws of physics. Its unclear till this date whether mind is a separate entity or the pineal gland it self. The faith and blessings from Yogis and Gurus have their own roles sustaining ones self in adverse situations. On religious days, under high spirits and a cultivated atmosphere, a few people surprisingly do unusual things like walking on fire or piercing pointed swords, through their bodies without damaging themselves. If similarly, some does fasting, these

phenomena may help to pull him/her through the period of physiological problems till one enters chronic adaptation phase.

(3) Energy Economy in efficient ways and re-cycling the energy in his own body: Those, who are chronically deprived of energy learn to utilize the available energy in more efficient ways - so that even at the low energy state body metabolism and vital functions including nervous system do not suffer. This is quite logical and one can imagine this happening in the individuals caught in natural calamities, or those left alone in the sea or survivors of high altitudes after plane crash etc. managing to live for several days or weeks, without food. Also, one can hypothesize that these people may be recycling the energy in their own bodies. This may be done, through complex mechanisms, involving neural & humeral organs. Solar energy, dissipated through body may get absorbed into the earth and while walking bare footed on the soil, standing in the sun, may help absorbing this energy through skin of toes, sole of feet as Shri Hira Ratan Manek does regularly and always preaches to do so to recycle the energy. This may be related to the principals of acupressure or reflexology.

(4) Genetically or phenotypically a different body predisposition: We should also examine this aspect carefully, as this leaves scope for an important discussion - whether each and every individual can use sun energy and if so, so efficiently? Only time can answer this. But it is possible that each individual has a different genetic code and also each body has different physical capabilities. Hence, one may be able to receive this Solar energy more readily, can transform & store it in a better way and also can utilize more efficiently and even recycle it - while other person may not be able to do it to the same extent. Hence, experiments, must be taken up, if possible on a randomized base upon volunteers with control population. However, leaving this component aside for the time being, is possible that many people can do this experiment very successfully under supervision. Prior body checkup and particularly retinal-ophthalmic checkup is mandatory and under strict medical guidance, a graded time bound experiment upon volunteers may be taken up.

If this theory can be generalized, then it can change the destiny of mankind. First of all, the food crisis will be solved. Through activation of this supreme energy in body the transforming it in electrical, chemical the magnetic forms, person can not only become free of diseases but can gain positive health with a vibrant aura. His luster can impress even enemies the

enmity may dissolve. With improvement of mental & intellectual capacities one may be able to use brain power up to 90 to 100 %, as against to 3 - 10% as we normally do. There will be reign of peace and prosperity. As there is no food, the bad thoughts and ill feelings will be stopped, so eternal peace is bound to follow.

This will also question the routine common calorie mathematics. By this, there is a challenge to the routine calorie based science. Its limitations are highlighted, at the same time the complex issues of obesity and malnutrition can be readily explained through the concept of solar energy. It is possible that obese people, though not eating excess food, still receive energy from cosmic sources explaining their obesity. The concept of cosmic energy can be used thus for total uplift of mankind at physical mental, intellectual, supramental and Spiritual levels. Extensive scientific research work therefore should be immediately taken up, by appropriate authorities, including bioscientists & medical personnel, to answer all these issues.

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( Ref. case study of Mr. Hira Ratan Manek : 411 fast : 375 fast completed on 9-1-2001.)  
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