

Electro-Photonic Imaging (EPI) as an Ancillary Study Suggestion. Rajan Narayan

EPI is a development of Russian researchers based on traditional medicine of China that is also consistent with the traditional medicine system of India. It is an effort to objectively assess what Chinese and Indian traditional medicine practitioners have done through ages by feeling the pulse in the forearm below the wrist and quantify it in terms of physiological systems understood in modern medical sciences.

While several types of equipment are available today in the market to serve as an objective surrogate for the ancient system of pulse reading, to the best of our knowledge EPI stands alone in explaining its full basis and in translating it completely in terms of communication of organ systems as understood by modern physiology.

HIGHLY TRAINED AND CAREFUL MEASUREMENT REQUIRED FOR PROPER USE - Past tests by researchers of such equipment has found the readings lacking reliability from a standpoint of a static physiological system. Thoughts, environment, exercise, food or medicines, etc. immediately change the readings and hence have been discarded as not meaningful. However these observed changes are consistent with changes in gene transcription that changes from moment to moment. Evidence of before and after a single yoga-type practice on gene expression has been studied. [1,2] Therefore, such tools like EPI must be used by highly-trained researchers in clinical trials when all factors that are not normal to the person, that can affect the EPI/gene expression readings, are minimized as much as possible for meaningful results. But more importantly, EPI can be used as an immediate predictor of the long term impact of any treatment when reading is done pre and post of a singular treatment. Such an observed phenomenon is consistent with the findings of long term impact of consistent gene expression on neuroplasticity. [3-5]

Further, this confounding issue of varying EPI readings must be understood in the context of the post human genome study two decades back. If we understand the moment by moment functioning of the human system as dependent on the predictable pattern of instructions from the brain and neural system, and the varying aspect coming from the changes in gene transcription from epi-genetic factors (including thoughts, activities, food or medicine, presence of others, any environment change, etc.) which may change from moment to moment, then we can understand the genius of the ancient systems of medicines of India and China, the role of pulse reading and the readings of EPI.

Experience of Life in Yoga Institute Working with EPI

Life in Yoga Institute is a tax-exempt, non-profit, organization engaged in research and education. It is the only yoga institution in the United States that has accreditation to provide Continuing Medical Education courses for physicians. Following are a few case observations relevant to NHLBI that have used EPI. Based on such cases Life in Yoga Institute has proposed a Unified System of Medicine – a single model of the human system that explains every system of medicine and how they work. A brief overview of this can be viewed at http://lifeinyoga.org/App_Downloads/MeasuredYogaTherapy.mp4 presented in the context of Measured Yoga Therapy.

Description of EPI Application

The EPI system reads the image of the 10 finger tips placed in an electro-magnetic field. The aura type image created is dissected into wedges corresponding to the Chinese Meridian concept of association with flow of specific organ meridians along that part of the finger. Six variables calculated from the image generate a number indicative of the level of communication along the specific organ meridian system. The calculation is based on statistical discriminant analysis with several thousand observations done by the Russian developers.

Every Organ System is given a Communication Energy score between 0 and 10.

- 5 is absolute normal.

- 4 to 6 is considered normal zone.

- 2 to 4 is low communication indicative of weakness in the specific organ system.
- Less than 2 is considered very weak.
- 6 to 8 is considered overactive communication within the organ system indicative of some imbalance or disturbance or extraordinary activation in the organ system. [Theoretically, the body's system may be able to fix itself some of the time. If it fails to do, the organ system may weaken and become eventually become non-functional. In the case when a system is weak, hyper-activation may happen in the process of healing.]
- Over 8 indicates high level of communication – severe imbalance or changes that has excited the body's communication.

Since 5 is absolute normal, changes in readings of 0.5 or more (10% of absolute normal) from any treatment/intervention may be considered significant and less than that may possibly be ambient movement.

The algorithm and calibration is largely based on modern adult Caucasian population. The absolute numbers are cautioned to be considered only useful for such people when read with proper calibration (which resets the voltage of the electro-magnet). However, in our experience with over 600 people in the United States, it applies to all races, although conditioning may change the readings (as observed for mountain-climbing Sherpas in Nepal) and would require a different kind of interpretation. Relative numbers of the organ systems may be used across all subjects irrespective of race or conditioning.

Studies with more details of this system with pictures of reports can be viewed at

http://lifeinyoga.org/App_Downloads/EPI_YogaSession.PDF

http://lifeinyoga.org/App_Downloads/EPI_Diabetes.PDF

http://lifeinyoga.org/App_Downloads/EPI_Pain.PDF

The protocol for yoga therapy treatment is as follows:

- Start with conventional diagnosis of condition and consider yoga interventions that are researched for the particular condition.
- Consider the weakest system identified by EPI, no matter what disease condition is reported.
- In combination of the two considerations apply suitable yoga protocol and seek to learn how subject feels, while also looking for EPI reading changes.
- Recommend therapy based on both EPI readings and reported experience of subject.
- [Integrated with Ayurvedic Pulse Reading, the concept of moving from Vikrati to Prakriti can also be used.]

Illustrative Cases Relevant to NHLBI

While all the cases described use yoga therapy, given what we do, the pre-post readings of EPI from any intervention that are predictive of future improvement and the insights developed into root cause are the points of these examples. [Yoga therapy is NOT the point of these cases.]

HYPERTENSION

52 year-old female on hypertension medication for 10 years. Using Losartan 50 mg from 2014, but detected with hypertension 2006 and started with other medications.

Reading of “Cerebral Zone” communication energy (indicative of abnormal blood pressure):

Sep 9, 2016 Walk-in Reading	3.43
Sep 9, 2016 After 5 mins of slow alternative nostril breathing	4.94 (significant change)
Oct 14, 2016 Walk-in Reading after 4 weeks of daily practice	4.43 (evidence of lasting change)

Since then the subject's blood pressure has continued to be better managed and is discussing with her physician to possibly reduce medication dosage.

STRESS AND LOSS OF CARDIO-RESPIRATORY FITNESS

54 year-old male, spouse of a physician, feeling a sense of tiredness often. Had temporarily been on hypertension drugs and discontinued. Wanted a quick check while visiting them. Slow deep breathing of 3 rounds of 20 breaths each changed his entire cardiovascular and immune/nervous system profile, while he reported feeling much better. Two months later, he reported that he has benefitted very much, no longer feeling tired, was sleeping better and had a feeling of wellness. Key numbers seen in the EPI system before and after the initial visit – there was no opportunity for a later reading – are the following:

Communication Reading Zone	Beginning Reading	Ending Reading
Heart	3.36	3.94
Cerebral Zone Vessels	3.26	3.49
Respiratory System	2.52	4.28
Thorax Zone	2.47	3.66
Nervous System	3.20	3.73
Immune System	2.42	3.79

ASTHMA CASE – Root Cause Identification

Since yoga is known to help with Asthma, the 62-year old spouse of a Penn State University faculty tried it in several yoga school traditions. She was chronically asthmatic for several decades and the cold weather made it worse. Every experience with yoga made it worse. During a visit in November 2015 at the University, readings were taken, when she was in her normal state, with the curious husband asking if we can find any indication of Asthma in the EPI readings. He was told that such strong indication appears to be present, since Asthma patients typically have hyperactive communication in the “Throat, Larynx, Trachea” zone readings of the EPI system. However the “Ear, Nose, Maxillary Sinus” area showed unusually low communication and this was pointed out with some puzzlement. At this they jumped up in excitement that the real problem was the “Sinus” and the post-nasal drip caused the Asthma. A known yoga practice called “Bhramari” or humming is known to help the sinus. After about 5 minutes of this humming the communication numbers changed substantially and the subject began to feel the sinuses more open.

November 30, 2015 Readings of “Maxillary Sinus” and “Throat, Larynx and Trachea”

Communication Reading Zone	Beginning Reading	Ending Reading
Ear, Nose, Maxillary Sinus	1.89	2.44
Throat, Larynx, Trachea	3.51	4.02

The subject was recommended to continue this practice 2 to 4 times a day for 5 minutes each time.

ASTHMA CASE-2

57 year-old male with a chronic history of Asthma was tested with yoga modality prior to use of any inhalers. He was in a condition of severe chest congestion with poor breathing when slow restricted throat breathing (Ujjayi in yoga) and slow deep breathing (Bhastrikaa) was applied. Readings below reflect the before and after effect even as he began to feel better.

December 2, 2016 Readings of “Immune System”, “Nervous System”, “Cardiovascular System”, “Maxillary Sinus” and “Throat, Larynx and Trachea”

Communication Reading Zone	Beginning Reading	Ending Reading
Immune System	3.60	4.29
Nervous System	3.03	3.57

Cardiovascular System	3.03	3.56
Ear, Nose, Maxillary Sinus	2.55	2.99
Throat, Larynx, Trachea	4.54	6.19

The subject had been doing this practice regularly for several years and had become irregular in the last five years. He was recommended to renew the practice.

INSOMNIA

19-year old female was asked to do the EPI reading by her physician (who is associated with Life in Yoga Institute) because she was seriously overweight at 278 lbs with 5' 6" height and in sub-optimal health condition. Her chief complaint was inability to sleep at night – even when she falls asleep never has sound sleep, and barely sleeps for 2 hours each night.

Readings showed very low communication energy in all organ systems and the lowest was the nervous system at 0.5. Consistent with the protocol we have developed, the exercise for the weakest system – the nervous system – was recommended. After less than 2 minutes – 6 restrictive throat breaths for vagal stimulation – she began to feel better and being new to the practice found it difficult to do more. Following are the readings for Epiphysis (Pineal gland/melatonin), and nervous system. She continued doing this practice three times a day for about 20 breaths each time, with the last session every night before going to sleep, and thereafter has had no problem of insomnia with an improved quality of well-being.

Reading Date/situation	Epiphysis	Nervous System
July 21, 2016 Walk-up	2.05	0.50
July 21, 2016 after 2 minute practice	3.26	0.73
August 8, 2016 Walk-up	4.02	3.34
October 15, 2016 Walk-up	4.11	3.21

While insomnia was conquered and the endocrine system looked much better, there was no loss of weight during this period.

CHRONIC FATIGUE SYNDROME (CFS)

A 71 year-old male who had developed CFS 35 years ago, had progressively become worse and in the first half of 2016 it had become very severe having become non-functional (unable to get up from bed) 20 days or so in a month. On July 17, 2016 he was assessed at a time when CFS symptom was strong and it was found while all his systems were normal, the afferent nerves showed mild weakness. Consistent with our protocol, the restricted throat breathing was applied to stimulate vagal activity. Within 15 minutes all CFS symptoms were gone. Interestingly the greatest changes were in the Respiratory and Head systems, even while the nervous system numbers mildly improved. [Since then this CEO of a successful business has begun attending office daily and is funding Measured Yoga Therapy clinics in Houston as part of his charitable program since September 2016.]

Communication Readings of	Before	After
Nervous System	3.97	4.24
Head Systems	5.24	4.72
Respiratory Systems	5.60	4.74

STROKE AND PARTIAL PARALYSIS

A 65 year-old male had developed partial paralysis after a stroke 20 months ago. From physiotherapy he has had some improvement and as part of physiotherapy he would do supported walking once a day of a certain number of feet. However, left side limbs (and hand and leg) were non-functional and the voice had lost part of its volume. After half hour of a practice called Chandrabhedhi breathing, he felt stimulation in his left leg. [He had been asked to do this half hour practice when 15 such breaths revealed a change

in EPI but he felt nothing.] After 4 days when he was revisited he found more sensitivity in his left leg. Following a mantra based meditation technique, he began feeling sensation in his left arm as well.

A follow-up call on December 3, 2016 revealed that mobility had increased substantially, and he was able to walk within the house more freely, and above all he was sleeping much better than before. He is due to a follow-up reading on December 21.

Date/Situation of Measurement	Musculoskeletal – Spine and CNS	Nervous System (Afferent)	Immune System	Spleen*
Nov 16, 2016 – Baseline Reading	5.85	4.32	3.45	4.88
After 30 mins Chandrabhedhi breathing	6.14	5.34	4.25	5.30
Nov 20, 2016 – Baseline Reading	4.80	5.07	4.72	5.05
After 5 mins Chandrabhedhi breathing	5.43	5.57	4.08	6.63
After 20 mins of Mantra meditation	5.83	6.08	5.19	7.18

*“Given the evidence favoring an increase in the release and the numbers of neuroprotective immune cells such as Tregs from the spleen after stroke, we can certainly envision potentially protective roles for the spleen in long-term recovery from stroke.” Zong-Jian Liu et.al.[6] This suggestion is indicated in the increasing spleen numbers.

EXAMPLES OF CONTROLLING FACTORS THAT ALTER EPI READINGS

We have seen the following instances that suggest high degree of caution in how EPI readings are to be used.

- On two occasions when readings looked unusual, the subjects were asked if they were thirsty while taking the reading. Immediately after they consumed a glass of water readings changed and looked more normal.
- On two occasions when different protocols were tested and the subject had stayed for about 2 hours, onset of hunger indicated change of the readings.
- When under the influence of drugs, readings can change. In the case of a cancer patient all systems looked normal, except adrenalin, and inquiry found that the subject was regularly taking prednisone. Those on normal medications for any specific condition will have best reading if the medication is not present in the system at the time of reading.
- When under stress readings can change. A diabetic who was late for an appointment came with haste half hour late after being stuck in bad traffic. Readings showed no abnormality in the Pancreas communication while Adrenalin was high. She was asked to take slow and long breaths for 5 minutes and relax. Then the readings clearly showed her pancreas weakness.
- Best readings of pathological conditions that cause pain or discomfort come when those conditions are present. At other times, EPI may not detect it.

RECOMMENDED USE OF THE EPI SYSTEM FOR ANCILLARY STUDIES

- It should NEVER be used as a tool for diagnosis within the American System, since inappropriate conditions can yield numbers that suggest false weakness and can cause alarm. [The Russian Healthcare system as reported by the inventor, Dr. Konstantin Korotkov, uses this system for diagnostic purposes with full understanding that any number indicative of any problem as yet undiagnosed would be further investigated as follows: (a) repeated readings daily for the next few days to see if the pattern continues; (b) conventional lab tests.]
- When read with reasonable control on factors that can affect it, it often provides deep insight into the root source of the problem (the weakest system).
- Medications or any intervention can be tested for its effects (and side-effect) by pre-post readings of the communication of the organ systems. Thus it has great potential for the future of the

practice of medicine.

- Since yoga is non-invasive, and as practiced by Life in Yoga Institute all yoga practices are done sitting on a chair and more often involve breathing or meditative practices with rare use of postures sitting on a chair, EPI is a predictive tool in most cases for the effectiveness of any yoga protocol.

EPI Equipment Used By Life in Yoga Institute

The EPI equipment used by Life in Yoga Institute is Bio-well – see <http://bio-well.com/> and <http://bio-well.eu/>

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