

APPENDICES

APPENDIX I: PARTICIPANT'S INFORMED CONSENT

Informed consent to participate in research project entitled “Acute Effects of Mobile Phone Radiations on Brain Hemodynamics, Cognition and Subtle Energy Levels of Teenagers and Protective Value of Yoga Intervention: A Randomized Controlled Study.”

Swami Vivekananda Yoga Research Foundation

#19, Ekanath Bhavan, K.G. Nagar, Bangalore -560019 You are being invited to participate in a research study. This form is designed to provide you with information about this study. The Principle investigator or representative will describe this study to you and answer any of questions. If you have any questions or complaints about the informed consent process or the research study, please contact the Institutional Ethical Committee.

1. Name of the subject:

2. Title of Research study: Acute Effects of Mobile Phone Radiations on Brain Hemodynamics, Cognition and Subtle Energy Levels of Teenagers and Protective Value of Yoga Intervention: A Randomized Controlled Study

3. a. Principal investigator: Dr Hemant Bhargav [MBBS, MD (Yoga and Rehabilitation)]

under the guidance of Dr Shivarama Varambally (psychiatric consultant from NIMHANS).

b. Sponsor of the study: SVYASA, Bangalore

4. The purpose of the study: To check whether mobile phone radiations affect brain blood flow, cognition and subtle energy levels in teenagers and whether Om Chanting offers any protection against it.

5. Procedures for this research: Procedure for measurement: The measurements are intended to understand the effect of MPEMF and Om chanting on pre-frontal cortex oxygenation in teenagers. The functional near infrared spectroscopy device, has a sensory cap which has 8 infrared light sources and 64 detectors. This cap will be fitted on your forehead region to record the level of activity in pre-frontal region of your brain. **6. Potential Health risks or Discomforts:** There are no risks of the study. If you wish to discuss these or any other discomforts you may experience, you may call the principal investigator Dr Hemant Bhargav, MBBS MD (Yoga and Rehabilitation Scholar) at Mob: 8762019348. **7. Potential Health benefits to you or to others** This research study is likely to benefit you directly by chanting of OM. **8. Potential financial risks** None **9. Potential financial benefits to you or others** None **10. Compensation for research related injury:** In the unlikely event of your sustaining a physical or psychological injury arising out of this study, primary care will be provided at Swami Vivekananda Yoga Research Foundation without charge. However, hospital expenses will be covered under an appropriate group insurance scheme available with any general insurance company. **11. Conflict of interest:** Participation in this study is purely voluntary. However before giving your consent please see that no conflict of interest arises. Your name and personal information will be kept strictly confidential. **12. Alternatives to participating in this research study** Since participation in this study is entirely voluntary and if you choose to participate, you are free to withdraw your consent and

discontinue participation in this research study at any time by giving it in writing without this decision affecting your medical care and health insurance provided to you during the study. If you have any question regarding your rights as a subject, you may phone the Institutional Ethics Committee office at (080) 7826033. **13. Withdrawal from this research study** If you wish to stop your participation in this research study for any reason, you should contact Dr Hemant Bhargav, MBBS MD (Yoga and Rehabilitation Scholar) at Mob: 8762019348. You may also contact the Institutional Ethics Committee (IEC) office at (080) 7826033. **14. Confidentiality:** The Swami Vivekananda Yoga Research Foundation will protect the confidentiality of your records to the extent provided by Law. You understand that the study sponsor and the Institutional Ethics Committee have the right to review your records.

15. Assent procedures: Not applicable

16. Signatures: ----- Subject's name:

The Principal investigator or representative has explained the nature and purpose of the above described procedure and the benefits and risks that are involved in this research protocol. -----

----- Signature of Principal investigator

Date

You have been informed of the above-described procedure with its possible benefits and risks and you have received a copy of this description. You have given permission for your participation in this study. -----

----- Signature of the Subject

Date

If you are not the subject, please print your name -----and indicate one of the following: ----- The Subject's parent ----- Other, please explain -----

The subject's guardian ----- A proxy -----

----- Signature of witness
Date

APPENDIX II: DEMOGRAPHIC DATA FORMAT

SWAMI VIVEKANANDA YOGA ANUSANDHANA SAMSTHANA

DEMOGRAPHIC DATA

DATE:

NAME:

AGE:

DATE OF BIRTH:

SEX:

M

F

PLACE OF BIRTH:

HANDEDNESS:

EDUCATION:

OCCUPATION:

ADDRESS:

<input type="text"/>
<input type="text"/>
<input type="text"/>

TELEPHONE NO:

MOBILE NO:

EMAIL ID:

SUFFERING FROM THE PROBLEM SINCE:

MEDICATIONS CURRENTLY TAKING:

SINCE WHEN:

APPENDIX III: ABBREVIATIONS

BV Blood Volume

CBF Cerebral Blood Flow

CAM Complementary and Alternative Medicine

DeoxyHb Deoxygenated Hemoglobin

FNIRS Functional Near Infrared Spectroscopy

HHb Deoxygenated Hemoglobin

HbO₂ Oxygenated Hemoglobin

OxyHb Oxygenated Hemoglobin

PFC Pre Frontal Cortex

rCBF Regional Cerebral Blood Flow

RMANOVA Repeated Measures Analysis of Variance

RCT Randomized Controlled Trial

T-Hb Total Hemoglobin

TotalHb Total Hemoglobin

USD United States Dollar

WHO World Health Organization

APPENDIX IV: STROOP TASK

Instruction: “Kindly Read the Words Loudly One by One Vertically as Fast as Possible for the Period of 30 Seconds”

RED	GREEN	BLUE	RED	GREEN	BLUE	RED	RED	BLUE	RED
GREEN	RED	GREEN	BLUE	RED	RED	BLUE	GREEN	GREEN	BLUE
BLUE	GREEN	RED	RED	BLUE	BLUE	GREEN	RED	RED	GREEN
GREEN	BLUE	BLUE	BLUE	RED	RED	RED	GREEN	BLUE	RED
RED	RED	RED	GREEN	GREEN	GREEN	BLUE	BLUE	GREEN	BLUE
BLUE	BLUE	GREEN	BLUE	BLUE	RED	GREEN	GREEN	RED	RED
RED	RED	BLUE	GREEN	GREEN	BLUE	BLUE	RED	GREEN	GREEN
BLUE	GREEN	GREEN	RED	RED	GREEN	GREEN	BLUE	RED	BLUE
GREEN	RED	RED	BLUE	BLUE	RED	RED	GREEN	BLUE	RED
BLUE	GREEN	GREEN	RED	GREEN	GREEN	BLUE	BLUE	GREEN	GREEN

Kindly Tell the Colour of the Words Loudly One by One Vertically as Fast as Possible for the Period of 30 Seconds

RED	GREEN	BLUE	RED	GREEN	BLUE	RED	RED	BLUE	RED
GREEN	RED	GREEN	BLUE	RED	RED	BLUE	GREEN	GREEN	BLUE
BLUE	GREEN	RED	RED	BLUE	BLUE	GREEN	RED	RED	GREEN
GREEN	BLUE	BLUE	BLUE	RED	RED	RED	GREEN	BLUE	RED
RED	RED	RED	GREEN	GREEN	GREEN	BLUE	BLUE	GREEN	BLUE
BLUE	BLUE	GREEN	BLUE	BLUE	RED	GREEN	GREEN	RED	RED
RED	RED	BLUE	GREEN	GREEN	BLUE	BLUE	RED	GREEN	GREEN
BLUE	GREEN	GREEN	RED	RED	GREEN	GREEN	BLUE	RED	BLUE
GREEN	RED	RED	BLUE	BLUE	RED	RED	GREEN	BLUE	RED
BLUE	GREEN	GREEN	RED	GREEN	GREEN	BLUE	BLUE	GREEN	GREEN