



Research Paper

A SURVEY ON THE IMPACT OF RADIATION EMITTED BY THE CELL PHONE TOWER ON HUMAN SUBJECTS

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Effect of cell phone tower on human subjects have not been much explored hence the present survey has been designed to identify the common diseases prevailing among the people dwelling in different zones near the cell phone tower. subjects have been divided into two groups as zone I subjects dwelling close proximity up to 50 meters from the cell phone tower whereas zone II subjects 100 meters from the cell phone tower. It is evident from the study that skin disease and hair loss was common among the subjects living in zone II when compared to zone I. It is also evident from the study that diabetic cardiac and respiratory patients were markedly higher in zone I when compared to zone II. Regarding cancer, epileptic and insomnia patients were insignificant in both zone I and zone II. This project will form base to identify a safe distance of living without the interference of radiation pollution emitted by the cell phone towers by Protecting the infants and children of future India. This will certainly form a base for further research on cell phone radiation effect on human subjects.

Keywords: Radiation emission, Dwelling zone, Ailments, Moody, Blood pressure

INTRODUCTION

Cell phones communicate via radiofrequency electromagnetic radiation. Cell phone towers send high-power outgoing signals that travel hundreds of meters to establish contact with individual cell phones. These signals essentially bathe the body in low levels of sustained radiation. Risks from these whole-body exposures may be

very different from risks associated with concentrated, intermittent cell phone radiation that penetrates a small area of the head (Elliott *et al.*, 2010). The increased demand for cell phones resulted in mushroom growth of cell phones both in rural and urban zones, since they give lucrative rent for installing the towers on the high buildings recently causing major threat to the population.

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The threat is in the form various incurable disease in human and domestic animals (Hung *et al.*, 2007). Many works have been attributed regarding screening the effect of radiation toxicity on experimental animal models but less work has been explored to screen the toxicity in the people (Krause *et al.*, 2007) dwelling in the urban and rural zone near the cell phone towers. Hence the work has been designed to screen the effect of radiation emitted by the cell phone tower through various clinical parameters of the human subjects.

MATERIALS AND METHODS

The above study was carried on human subjects dwelling at different zones of cell phone tower installed area (Andrzejak, 2008). Study was carried out in two zones such as zone I—people living at proximity of the tower (within 50 meters from the tower), zone II—till 100 meters from the tower. Based on this preliminary study, radiation level at different zones will be measured using tower RF radiation meter. This survey is aimed on human subjects dwelling at two selected zones near the cell phone tower on body weight,

Model Survey Sheet								
Human Subject Code No. and Zone	Sex Age Weight	Blood Pressure (mmHg)	Heart Rate (beats/min)	Pulse Rate (per min)	Hair Loss	Disease	Avg. Birth Rate	Mood

Table 1: Percentage of Subjects Affected by the Disease

Disorders	Zone 1 (Percentage)	Zone 2 (Percentage)
Diabetics	11.11	9.09
Cancer	0	3.03
Epileptic	0	0
Heart disease	18.51	9.09
Skin ailment	0	12.12
Respiratory disorder	7.40	12.12
Hearing impairment	7.40	0
Insomnia	3.70	3.03
Anemia	0	15.15
Hair loss	7.40	60.60

sex, mood of the subject, reports of cancer, Diabetes, cardio vascular problems, respiratory disorders, urogenital problems and hair loss, etc.

RESULTS

Through this study it is evident that diabetic, cardiac and respiratory patients were markedly higher when comparing to zone II. Regarding the skin disease it is significant only to zone II (Table 1). The results regarding cancer, epileptic and insomnia seems to be insignificant. The remarkable observation in the survey is 60% of subjects complain with hair loss when compared to zone I (7.4%).

DISCUSSION

It is evident from the survey that in zone II significant number of subjects showed hair loss, skin diseases whereas diabetes and heart patients were more in the zone I, which may be because of difference in radiation in these zones. This project was form base to identify a safe distance of living without the interference of radiation pollution emitted by the cell phone towers by protecting the infants and children of future India. Apart from this it forms a basis for the Government to frame proper rules regarding the issue of license for the installation of the cell phone tower to protect the future India.

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