



SHORT COMMUNICATION

Hazardous Impact of Electromagnetic Radiations on Human Health

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Radiation may affect living and mechanical things on earth and in space. The constant use of cell phones has give rise to common complaints of memory loss, headache, dizziness, nausea, and impaired vision in India. The recent researches by scientists had demonstrated the prolonged exposure to radiation can cause brain tumour and cancer. If we calculate yearly exposure rate to harmful-energy radiation and cumulative effects over time, and use the information to evaluate various sources of radiation which are great concern for spacecraft and other object in space must be concerned with the same kind of radiations which humans are exposed to. The spacecraft which orbit Mercury will be subjected to much more intense solar radiation is needed to study properties of planet too much of it can be quit damaging. Same principle applies to persons living near mobile tower and persons away from mobile tower. The EMR are being utilized as technological enhancement to the mankind all across the world. During 30th century first half harmful effects if ionizing radiations became very evident and lots of remedial actions had been taken. When use of electromagnetic spectrum increased for mobile communications, television transmitters, FM (Frequency Modulation) radio stations and also call phones themselves threaten significant increase in the (Radio Frequency) RF level in various cities particularly densely populated areas. Broadcasting and household remote-controlling, enormous health effects started taking place by non-ionizing radiations. The mobile telecommunication companies mushroomed in the cities all over the world with radiating steel towers. In the over-exuberance of the speed of network roll out and covering the full population for a good communication range, they have not only neglected the structural stability, heritage protection and radiation health effects but also put the general public open to the continuous (24x7) exposure of EMR which is leading to permanent effect on human health and behaviour. In this article, health impact of radiations and how to overcome on them are precisely described.

RADIATION RISK TO PREGNANT WOMEN

A pregnant women and the foetus both are vulnerable because of the fact that RF radiations continuously react with the developing embryo, developing cells, because of thermal radiations also. When the pregnant ladies either use cell phone or when illuminated with RF radiations, the developing child can become affected, the developmental malformation can occur.

RADIATION RISK TO PATIENTS CARRYING PACE MAKERS

The RF exposure adversely affects implanted Pace Maker and becomes arhythmical. These radiations may stop Pace Maker from delivering pulses in a regular way or may generate some kind of external controlling pulse putting the patient to death.

CELL PHONE DISADVANTAGES: EFFECTS ON CHILDREN

The health effects of cell phone radiation on children are very worrisome. Dr Hyland explains why children are more vulnerable: Preadolescent children are more vulnerable (to micro wave radiation) because of their thinner skulls, there still developing nervous systems, their increased levels of cell division, and their less robust immune systems. Stewart Report is a report commissioned by the British Parliament in response to fears that cell phone use could be linked to memory loss, and even Alzheimer's disease. It explains the effect of cell phone radiation on children: A one year old could absorb around double (the radio frequency radiation), and a five year old around 60%, more than an adult. Additionally, since children are being exposed to RF radiation from base stations (from cell

phones) from a younger age than adults, they will have a longer time in which to accumulate exposure over the course of their lives, and a longer time for any delayed effects of exposure to develop. Anybody who gets a signal on their cell phone in their home, is in the vicinity of the base station? The answer to this question will likely impact your family's health, especially if you live within 400 meters of a base station. Spanish study found that people living in the close vicinity of a cell phone tower had the following health problems.

- Depression increased by up to 64-fold
- Fatigue increased by up to 37-fold
- Appetite loss increased by up to 25-folds

Those health effects apply to adults, children can be expected to have even more severe health issues due to the increased absorption of the same radiation levels. The health impact of RF radiation need more research. The reasons that this is not happening is the enormous economic value that is associated with cell communication industry and the connectivity it provides. However, both brain cancer and leukemia have been associated with microwave radiation. Keeping this and the explosive growth of cell phones in mind, one wonders what the connection is in between RF radiation and these cancers. According to the US National Resources Defence Council: Leukemia is the most common cancer in children, responsible for more deaths than any other form of childhood cancer. From 1977 to 1995, US rates of childhood leukemia rose about 1% each year. [20% increase over a 18 year period]. The second most form of cancer is cancer of the central nervous system in children. These cancers, which may involve the brain or the spinal cord, are most common in children under seven. Childhood brain cancers have been increasing from 1973 to 1994, the number of reported brain cancers in children under 15 increased 1.8% each year [45% increase over a 21 year period]. The association between cell phones and childhood cancer is considered extreme. The situation of the growing brain might deserve special concern...The intense use of cell phones by youngsters is a serious consideration. Potential brain damage as a result of cell phone use was one the big motivators. The precautionary approach is the widespread use of cell phones by children for non-essential calls should be discouraged. The cell phone industry should refrain from promoting the use of cell phone by the children. Within only a few years a substantial proportion of the world's population has adopted a new transmitter up against the head, in some instances for hours a day. Cell phones transmit and receive RF signals in order to communicate. The RF signals from cell phones fall within the microwave part of the electromagnetic spectrum. The radiation is also referred to as microwave radiation or electromagnetic radiation. Cell phones use microwave radiation to communicate. There is a need to control pollution of EMR just like air pollution, water pollution, noise pollution. The government has to take actions to control this pollution if government does not takes action then the day will come when every third Indian will be sick due to this pollution.



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