

AN OVERVIEW ON EFFECT OF CELL PHONE RADIATION ON HUMAN HEALTH

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Abstract

Cell phones are like the integral part of our daily life. The huge amount of time people spend on their cell phone has also risk. When people had a working cell phone held up to their ear for approx 50 min, the brain tissues of the same side had heavy amount of glucose is used then the opposite side of glucose started served to the brain fuel that harm the brain, then person suffering from cancer. The model of different type of cell phone (redmi,vivo,honor,nokia,apple,etc) used different amount of energy. In (WHO) World health organization is presently carrying formal risk assessment of all studied outcomes from the radiation.

Keywords:-Cell phone, Cancer, risk, WHO.

I. Introduction

In present scenario huge amount of cell phone is increasing day by day. Now according to the paper we should know, [1] **what is radiation?** Radiation is the energy which travels in the form of particle and waves. Day by day it gets surrounded to our earth, our universe, even it surrounded with our own body also. Some experts also suggest that it is good in medical science.

What is cell phone? Cell phone is thing which helps to communicate to other one. The name come from the cell like structure i.e. also name as mobile, smart

phone. It is small wireless device, now a day generation by generation cell phone gets smarter. The generation of cell phone is invented in 1973 of 2 kg. [2]The first generation network (1G) is launched in 1979 by Nippon telegraph and telephone (Japan).The second generation network (2G) is launched in 1991, then after 10 years the third generation network (3G) is launched in 2001.Then in industrial area it facing some problem then the fourth generation network (4G) is launched in 2009. Now fifth generation network (5G) is under processing.



Fig: 1 Radiation and our cell phone [3]



Fig: 2 Radiation and our cell phone [3]

The radiation which is realized by the cell phone is electromagnetic radiation. It always present in cell phone because of radio frequency to make the call receives. It explores more frequency from its antennas. Now a day due to this radiation the people face such a so many diseases like cancer. Rapidly day by day the user of cell phone in increasing. According cellular telecommunication over 400 million cell phone purchased in USA in 2017. Over all world record approx more than 5 billion users are using cell phone.



Fig :3 Cell phone antenna and its base [4]



Fig :4 Cell phone antenna and its base [4]

There is lots of controversy of antennas like radio antennas, cell phone antennas. The first generation of antenna is launched in 20th century.[5] In global system for mobile communications(GSM) networks, the correct term is Base transceiver station(BTS).The coverage area in which service is provide is divided into a mosaic of small geographical area called 'cells'. The frequency of antenna is single in use. It also be limited by local geographical or

regulatory factors and weather condition. It may be possible to get between 50 to 80 km. When the terrain is hilly, the max distance can vary from 5 km to 8 km. Now in 3G/4G mobile base station tower, it is technically possible to cover up to 50 km to 150 km. But the 5G mobile base station tower, it is technically possible to cover 250km to 300km.



Fig:5 Side effect of cell phone [6]

II. Side effect of cell phone

Cell phones are now an integral part of our modern technology in our everyday life. Now a day over half of population is using cell phones. Cell phone realized radiofrequency energy, in form of electromagnetic radiation which can be absorbed by brain tissues which is very close to cell phones. In 2k11, International Agency for Research on cancer (IARC) gives that cell phone radiation possibly carcinogenic, which means that there could be some risk of carcinogenicity. While an increased of risk that the brain tumors from the use of cell phone is not established, the more use of cell phone and lack of the data for cell phone use over long time approx 15 years, where the feather

research of cell phone cause cancer risk. According to United Nations Conference on Trade and Development (UNCTAD) Saudi Arabia in the first country which use huge amount of cell phone. A cohort study in Denmark linked over all more than 358,000 cell phones used and causes brain tumour. The American Cancer Society (ACS) that the IARC classified the there should be some risk of cancer.

A. 5 reasons why student should control in cell phone usage

- Lack of Concentration
- Stress
- Low grades
- Lack of vision
- Cyber bullying

1) *Lack of concentration*

A cell phone reach [7] easy even when the cell phone is switch off your ability of focus and perform tasks because the part of brain is working to not use or pick up the phone. It is like a brain drain or brain wash. All students or a people were instructed to turn their phone to silent.

2) *Stress*

Now a day's parents [8] want to give all the facilities to their teenager child. They purchase the most expensive cell phone for their child. Students generally have like to maintain the image. Even they have not so expensive phone they want to use from their friend circle. Student gets stressed to maintain their communication between teacher, friend or parent.

3) *Low grades*

Use of technology has direct implication on education, be it is positive or negative. If the teacher is using technology in classroom, it is benefit a student. If a student is using cell phone continuously it gives bad impact to him/her. According to research after banded of cell phone in school the test scored 16 improved by 6.4%. The uses of phone is becoming the distraction and wasting of time. They delved into the real world that they forget all the important work.

4) *Lack of vision*

Due to stress and depression are some of the problems faced by students due to 24 hrs communication with friend or other people. According to study, students fail to set their goal for themselves to confused the mind. Teenagers get deep into delirious mind, once they started their phone they use all the time. They don't sleep, they always check their phone. This all effect the eye to fall in diseases.

5) *Cyber bullying*

According to recent survey by Microsoft Corporation, India is on third rank that have highest rate of cyber bullying, after China and Singapore. As many of approx 7,600 children between the ages of 8 to 17 years are the victims of cyber bullying. **Side effect of cyber bullying?**

Rising student suicides, Loss of self confidence, Depression, Increase in student drug addicted and we also tell they started wrong path.

III. Conclusion

According to data collected in this research that the radiation emitted from the cell phone are significantly lower at the distance of 1 cm which is the distance of a cell phone would be placed next to one's head when one is talking on the cell phone. The level emitted from the cell phone is 1 mill watt per squared centimeter which is not great amount and its acceptable value from the US Food and Drug Administration (FDA) for the radiation of cell phone. When the distance increased to approx 8 cm the average amount of radiation emitted is nearly zero. This experiment show that if the person put or hold the cell phone 8 cm away from their body then after that the amount of radiation is decreased. So, its better that if the person is holding or using the cell away from the body, the cell phone right next to ears and talking on the cell phone. And it much better that if person use bluetooth-headphone to conversation or talking to other head. According to research that the person which use cell phone approx 10 -15 years they doesn't have a heavy risk of cancer and brain tumours in head. It also happens with the person who uses cell phone more than 10-15 years. In animals studies it show the frequency field is similar to those cell phone don't cause cancer in laboratory animal, and the high esposure level (up to 4 w/kg) shown no apparent effect on tumour development example-

“Robert 2.O” shows the radiation effect of cell phone on birds. In cell cultures don't able to find the evidence of the radio frequency field to exposure to contributes the DNA-damage.

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