Various Health Problems & More

The following figure shows in Red Color effect on health of radio frequency radiation at various power densities

Various health problems, such as sleep disorders, weakness, fatigue, pain, etc. have been reported at a low level of 0.02 mW/m² and severe health problems occur at levels greater than 1 mW/m² over an exposure of a few years.

Figure: Guidelines, exposures and effects of radio frequency radiation at various power densities. Data from Firstenberg 2001. The diagram was prepared by Dr. Magda Havas, Trent University, Canada

Mumbai Mirror - Oct. 28, 2013

On Oct. 28, 2013, Mumbai Mirror reported that Residents of Bhandup, Mumbai claim that radiation from the towers has triggered several cases of migraine, memory loss and joint pains among the 600 families living in the complex.

Editor’s comments: The reported health problems in the newspaper are similar to those shown in the above figure.

Initiatives taken by Citizens Group of Mumbai

On June 4, 2014, Citizens Group of Mumbai wrote a letter to DOT Minister Shri Ravi Shankar Prasad to adopt lower radiation norms of 100 mW/m² in my report to Secretary, DOT in Dec. 2010. I had written that maximum cumulative power density allowed should be reduced with immediate effect to 100 mW/m², which should then be subsequently reduced to 10 mW/m² within a year, so that network planning can be carried out in a phased manner. However, in the last 3 years, I have found that people are developing severe health problems even at a level of 1mW/m² in 5 to 10 years. People should unite and convince DOT to adopt radiation level less than 1mW/m² for 24x7 exposure.

Webinar on cell phone/tower radiation hazards and solutions

On May 22, 2014, I gave a webinar on cell phone/tower radiation hazards and solutions, which was broadcast through IUCEE (Indo US Collaboration for Engineering Education). It can be seen at: http://youtube/?q=3W9tm2Zto

Juli Chawla’s video on safe use of cell phone

In a very simple way Bollywood Actress Ms. Juli Chawla has explained safe use of cell phone in a short video, which can be seen at: http://youtube/?q=3W9tm2Zto

If anybody overuses cell phone and/or living next to cell towers has experienced health problems, please send me your feedback, suggestions and questions at celltower.newsletter@gmail.com. I will try to answer those in my next newsletter. Please mention whether you want your name to be quoted not. You can also call me during the day on: (022) 2576 7436 or (022) 2576 4433.

NEWSLETTER

Cell Phone/Tower Radiation Hazards and Solutions

Electrical Engineering Department, IIT Bombay, Powai, Mumbai Tel: (022) 2576 2436, email: piumin13@iitb.ac.in

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Editor’s Column

There is a consistent pattern of increased risk for glioma and acoustic neuroma with use of mobile and cordless phones. Epidemiological evidence shows that radiofrequency should be classified as a known human carcinogen. The existing FCC/IEEE and ICNIRP public safety limits are not adequate to protect public health.

In my previous two newsletters, I had mentioned about several health hazards due to exposure of cell phone and continuous exposure to radiation from cell phone tower antennas. It contained several cases in India and other countries. After the second newsletter of Oct. 2013, several people asked me to give more details of the associated health problems due to high radiation. I had asked people to address their concerns due to the number of events that happened in the last few months. This has been considerable delay in coming out with the third newsletter.

On Dec. 2, 2013, a book entitled, "Mobile Phones and Public Health - Myth and Reality" was launched by Dr. Michael Repacholi, Head of the EMF Project of the World Health Organization (WHO) at Press Club, Mumbai. This event was widely covered in the media. My comments on the book are given in brief on Page 2.

On Dec. 10, 2013, doctors from the Indian Medical Association-Mumbai (IMA) addressed the press conference and its President said, "Cell tower radiation poses no threat to people's health." On the contrary, during Dec. 20-21, 2013 at a National Conference on "Mobile Phones & Electromagnetic Pollution Hazards: Challenges & Solutions" organized at Jaipur, there were nearly 20 invited speakers, 8 oral presentations and 6 poster presentations, and majority of the presenters mentioned about several health hazards associated with high radiation from Cell Phones and Towers. On Feb. 18, 2014, at a National Seminar on "Cell Phones/Tower Radiation Hazards and Solutions" organized at Guwahati, Assam, several speakers also mentioned about various health hazards associated with high radiation from Cell Towers. Naturally, the thought comes to mind, "Who is spinning the truth?"

In the meantime, the Honorable High Court Allahabad has issued the following directive.

"We direct the Government of India to constitute a Committee of five members of Electrical Engineering Department of the IITs of Mumbai, Kanpur, Kharagpur, Delhi, Roorkee including Prof (Dr) Girish Kumar and four other prominent persons of other scientific institutions of the country like AIIMS (Delhi), Indian Council of Medical Research, etc to submit a report so that the Government of India may take necessary precaution while granting permission to the operation of mobile towers as well as to regulate sales of mobile with necessary precautions."

Based on the High Court Allahabad directive, DOT formed a committee of 13 people. After seeing the list, I sent an email to all the members, a part of which is reproduced below:

"I am extremely disappointed to see the names, majority of whom are pro DOT norms (in a way favourable to high radiation emitted by cell operators) of 450 mW/m² to 1000 mW/m², whereas people are having health problems even at a level of 1 mW/m² within 5 to 10 years. According to Bio-initiative report 2012, for 24x7 exposure, safe level must be less than 0.1 mW/m²."

I attended these committee meetings, I had to go to DOT, Delhi several times during Oct. 2013 to Jan. 2014. The committee members ignored most of my recommendations and finalized the report on Jan. 17, 2014 emphasizing that there is no conclusive evidence of health hazards. My comments on the committee members and the report are uploaded at: http://www.scribd.com/doc/228774059/

On Feb 25, 2014, Indian Express reported, "ITI prof 'hyped' cell radiation, daughter sold protective shields". However, on every forum, I always emphasize on adopting better radiation norms and reducing the transmitted power from cell towers. If cell operators reduce the transmitted power, then who will need the shielding solutions from my daughter, Neha Kumar's company "NFRA Radiation Solutions Pvt. Ltd.?"

On April 15, 2014, Times Of India reported, "Health risk from Wi-Fi devices rising". It stated that "there is an increasing pattern of increased risk for glioma and acoustic neuroma with use of mobile and cordless phones. Epidemiological evidence shows that radiofrequency should be classified as a known human carcinogen. The existing FCC/IEEE and ICNIRP public safety limits are not adequate to prevent public harm. New details are given on Pages 7.

Amidst the above happenings, my daughter, Neha Kumar, got married on March 7, 2014 and a week later, left for USA along with her husband, where he works. After that, I slowly started putting the material together for this newsletter and will try to come out with the newsletter every three months, as awareness must continue because lives of millions of people may get affected due to high levels of cell tower radiation.

This newsletter contains my comments on the book entitled, "Mobile Phones and Public Health - Myth and Reality" on Pages 2. Harmful effects of radiation of cell phone and towers on DNA damage is given in detail on Page 3. Other topics of interest such as EMP loss on Page 5, vision problems on Page 6. WHO latest comments on cell towers, proposal for ban in NAI in schools in many countries, etc. are covered under Global Updates on Page 7. Various health hazards due to cell phone/towers are more on Page 8.

Disclaimer: This newsletter does not reflect the official policy or position of IIT Bombay.
WHO Questions & Answers dated Sep. 20, 2013:

Q: What are the health risks associated with mobile phones and their base stations?

A: This is a question which WHO takes very seriously. Given the immense number of people who use mobile phones, even a small increase in the incidence of adverse effects on health could have major public health implications. Because exposure to the radio frequency (RF) fields emitted by mobile phones is generally more than 1000 times higher than from base stations, and the greater likelihood of any adverse effect being due to handsets, research has almost exclusively been conducted on possible effects of mobile phone exposure.

Editor’s comments: It is very important to note that according to WHO, “RF fields emitted by mobile phones...” (This is a statement from WHO and is not an excerpt from the book.)

RF fields should be classified as Class 2A “probable carcinogen” or even Class 1 “human carcinogen.”

According to Dr. Anthony Miller, who was on the IARC committee, the accumulated evidence is now strong enough to suggest RF fields are likely to be classified as Class 2A (probable carcinogen).

A study published in September 2013, “Case-control study of the association between malignant brain tumors diagnosed between 2007 and 2009 and mobile and cordless phone use” by Hardell et al also confirmed previous reported results showing an association between cell phones and malignant brain tumors, suggesting RF from cell phones may play a role in both the initiation and promotion of cancer.

Another study by Hardell et al, published in December 2013 showed that the evidence available suggests that RF-EMF exposure, both mobile (cell) and cordless phones should be regarded as an IARC Class 1 “human carcinogenic.” Asadi Philipps of Powerwatch UK says “The criteria used for reducing the exposure, such as putting the phone to your ear, are not a guarantee that RF from cell phones may not play a role in both the initiation and promotion of cancer.”

In April 2014, it was reported that “Health risk from Wi-Fi devices rising.” It stated that, “The need for some kind of increased trend for glaucoma and acoustical neuroma with use of mobile and cordless phones. Epidemiological evidence shows that radio frequency should be classified as a known human carcinogen. The existing FCC/IEEE and ICNIRP public safety limits are not adequate to protect public health.”

Thus, stronger evidences are emerging and scientists are urging WHO that RF fields really should be classified as Class 2A or “probable carcinogen” or even Class 1 or “human carcinogen.”

With growing evidences of cumulative health hazards, I urge the people of the world to unite and request their Govt. to adopt safe radiation norm of less than 1mW/m² for 24×7 exposure.

Proposal for ban in Wi-Fi in schools of many countries

Wi-Fi emits microwaves radiation in the same frequency range as that of microwave oven. But wireless routers and wireless computers contain transmitters that send information back and forth through the air. Microwave radiation is able to penetrate walls made of wood and concrete. It can also penetrate our bodies.

Wi-Fi has been banned or proposed to be banned in many schools in several countries, such as Austria, Italy, New Zealand, Switzerland, Canada, etc. Even, European Council issued a Report Warning of the Use of Mobile Phones and Wi-Fi for Children. American Academy of Environmental Medicine Advises Against Wi-Fi in Schools.

For more details, please see: http://wifischools.com/newslinks.html

Many related reports and videos can be seen at: http://wifischools.com/

Editor’s comments: It is recommended that Wi-Fi routers at home and office should be switched OFF, when not in use to avoid unnecessary exposure to microwave radiation. Schools and Colleges should try to use Wired LAN or Fiber optic network for using internet.

USA, FCC-oet56 Guidelines, August 1999, Page 21

On Page 21 of USA, FCC-oet56 Guidelines, August 1999, it is written.

Although the FCC permits an effective radiated power (ERP) of up to 1 watt per channel (depending on the lower height), the majority of cellular base stations in urban and suburban areas are limited to an ERP of 100 watts per channel. An ERP of 100 watts corresponds to an actual radiated power of about 5-10 watts, depending on the type of antenna used (ERP is not equivalent to the power that is radiated, but rather, is a quantity that takes into consideration transmitter power and antenna directivity). As the capacity of a system is expanded by dividing cells, i.e., adding additional base stations, lower ERP’s are normally used. In urban areas, an ERP of 1 watt is usually considered approaching a radiated power of 0.5 - 1 watt) is less commonly used. For PCB base stations, even lower radiated power levels are normally used.

In India, cell operators are allowed to transmit 20W of power per carrier from individual cell tower antenna. One operator may have 4 to 6 carrier frequencies and there may be 2 to 4 operators on the same tower or tower. Thus, total transmitted power may be 100 to 400W.
Cell Phone/Tower Radiation Effect on eyes
(Vision Problems)

Ever wonder what the effect of all those gadgets might be on your kid's eyes?


April 16, 2013

Well doctors have found that almost 20% of all school children suffer from diminished vision and might not even know it. The study conducted at Adyar Eye Hospital and Institute, Navi Mumbai by Dr Vandana Jain, says that the rising incidences of eye conditions in children could be on the rise due to increased use of laptops, tablets and cell phones.


“Smartphones are causing vision problems to soar”

Aug 19, 2013

London: Smartphones are causing serious problems to soar in children as young as seven, a top UK eye surgeon has warned. Since the launch of smartphones in 1997 there has been a 35% percent increase in patients with myopia (short-sight), according to David Allamby, a leading laser eye surgeon in the UK.

Research has shown that users hold their handhelds only 18 to 30cm away from their faces, compared with newspapers and books which are held 40cm away from the face when reading, the Daily Express reported.

Times of India, Bangalore - Dec. 23, 2013

Keep an eye on your child’s vision

Have you noticed a substantial rise in the number of children wearing glasses? Well, there’s a reason for it. Experts say kids these days have more eye-related problems since the load placed on the eyes has significantly increased. Not only has there been a quantum of work spread increased, new technology has also led to massive eye strain. Says Ophthalmic surgeon Dr Kewl Mehta, “Ideally, for a growing child, nearpoint application, which includes reading on computers and tablets, should be restricted to two to four hours a day.” Dr. Nikhil Nasta says refractive errors (spherical power) account for 80% of visual impairment in kids. “This includes Myopia or near-sightedness, where distance vision is blurred, but a child can usually see well enough to read or do other such tasks. This occurs most often in school-going children. Another problem is hyperopia (far-sightedness), because of which crossing of the eyes, blurred vision or discomfort may develop. Most children are far-sighted early in life and it becomes a concern only in extreme cases where the focusing muscles are not able to keep the vision clear.

Times of India, Bangalore - May 31, 2013

India loses $37bn because of poor eye vision: Study

India loses $37 billion (about Rs 203,500 crore) in annual productivity on account of poor eye vision among its people. A recent study by WHO estimates that there are 590 million people in India – about half its population – who require vision correction but are not adopting means to correct it.

In India, 41% of children (under 10 years) are estimated to need visual correction but are not corrected. About 42% of workers, 45% of drivers and 45% of elderly people are similarly placed.

Editor’s comments: One of the additional reasons could be the radiation from the cell phones, which is very close to the eyes while texting, reading, gaming, internet browsing, etc. Cell phones, even when not in use, send signals to the base station almost every minute, so the eyes or the person using the phone for hours, would get this high radiation signals, which can dry the fluid in the eyes over the years due to cumulative effect.

The following figure shows focusing and defocusing of eyes for control (to exposure to radiation) and exposed eyes, respectively. Prolonged exposure to microwave radiation can lead to microscopic and microscropic damage to the lens and part of this damage does not heal and accumulates with time.


DNA, Ahmedabad - Nov. 24, 2013

It’s time we talked about breast cancer

Breast cancer incidents are rising phenomenally across the world. According to WHO, India will probably face a breast cancer epidemic by 2020.

Editor’s comments: One of the additional reasons could be radiation from the cell phones being carried by ladies in their top pocket and by men in their shirt pocket. Cell phones, even when not in use, send signals to the base station almost every minute, so a person carrying the phone for 8 hours a day, would get these high radiation signals 480 times a day.

Times of India, Kolkata - Dec. 17, 2013

The Hindu - Oct. 20, 2013

Ringing in despair - Cancer and other ailments have caught on like common cold, say residents of NOIDA.

In the past couple of years, there have been three cancer deaths and at least four more cancer cases in the vicinity of the two towers. This is in addition to most of the residents suffering from depression, insomnia and other health problems.

According to resident Nandana Singh, who lives across the road from one of the towers, the radiation emitted is responsible for her recurring ovarian cancer. She was diagnosed with stage III of the disease last year and is still battling it.

Her cousin, who lived behind the other tower, passed away earlier this year, within months of a cancer diagnosis. Ms. Singh’s next-door neighbour succumbed to the disease over a year ago, as did another neighbour more recently. Ms. Singh and her cousin don’t have a family history of cancer.

Cell phone tower radiation could be triggering a range of disorders - from fatigue, memory loss, headaches and hearing impairment to more serious problems like cardiac diseases and even congenital defects, claims the study conducted by researchers of the Noida Subhas Chandra Bose Cancer Research Institute (NSCRI). Continued exposure to electromagnetic waves from cellphones could even cause cancer, the study warns.

Researchers from the institute studied and observed 201 people residing in areas with a high density of cellphone towers in central Noida. While some lived in buildings that had towers on the roof, others live within 50 metres of such buildings. Two babies - each born in the last six months - had congenital defects, the study found. Most of the subjects of the study said the intensity of their ailments goes down once they leave their homes and return to the earlier stage once they return.
Cell Phone Radiation Effect on Infertility

Hindustan Times, Mumbai - Sep. 19, 2013

46% Indians in 21-40 age group seeking medical help are infertile

About 46% of Indians in the age group of 31 to 40 years seeking medical help for conceiving a child were found to be infertile, meaning they were unable to conceive even after two years of trying for a child, according to a survey conducted across nine cities including 2,562 patients.

Cell Phone Radiation Effect on Hearing Loss

Times of India, Mumbai - June 11, 2014

Animal studies indicate that radiation may have a wide range of damaging effects on the testicular function and male sperm. It has been reported that mice on exposure to cell phone signals become less reproductive. After five generations of exposure, the mice were not able to produce offspring, showing that the effect of electromagnetic radiation can pass from one generation to another.

DNA, Mumbai - Nov. 16, 2011

Talking too much on the phone could cause high frequency loss

Every year, medical students at Nair and JJ hospitals are screened for health problems. This year, the results were startling: 50% of the 300 students were found suffering from the high frequency hearing loss. "We found that those with high frequency hearing problem tend to use mobile phones for hours and listened to loud music on their earphones," said Dr. Loyd Menon, an assistant professor, audiology and speech therapy Department at Nair Hospital.

People with high frequency hearing loss show symptoms like inability to hear consonants t, s, z, and c. Failure to hear high pitched siren, helicopter blades, the sound of water dripping for some duration. Difficulty in talking in groups and inability to hear when there is noise in the background, explained Dr. Mohan Jagade, head of ENT Department, Sir JJ group of hospitals, Mumbai.

Indian Express, Mumbai - July 18, 2012

Hearing it RIGHT

Doctors claim that there has been rising cases of hearing loss owing to excessive cell phone usage

Research indicates that cell phones may cause internal ear damage and hearing loss, along with other minor discomforts. "Patients who come from BPCO have complained of ringing ears (Tinnitus), warm pins (outer ear) and low hearing. I have received complaints of warm outer ears which might have been caused by the heat generated by phones. Other major symptoms have been headaches and fatigue," says Dr. Virendra Ghose of Ghalia ENT Hospital.

Times of India, Mumbai - May 13, 2013

Doctors report 50% hearing loss among cell phone users

Excessive use of cellphones can cause the deadliest of health hazards among users, from hearing loss to neuro-endocrine disruption, hormonal imbalance and cancer. Dr. Divya Prabhat, ENT surgeon with Shalata and Vaidya hospitals, said he had been getting many patients who complain of pain in the ears and even hearing loss.

Prolonged cell phone radiation is said to cause cancer. In a study published in the Journal of the Association of Physicians of India in 2008, endocrinologist Dr. Shashank Joshi, along with other doctors, had shown how electromagnetic rays from a cellphone cause neuro-endocrine disruption. "Apart from cancer caused by radiation, the cell phone culture increases sedentary work habits. It also reduces sleep time. This causes blood pressure, diabetes, and cardiovascular diseases," said Dr. Joshi.

Doctors say the gadget addiction also leads to hormonal imbalance. "Hormones like estrogen and melatonin are disrupted big time by excessive cell phone usage. There may be a discharge of negative hormones because of anticipation of a negative call. This tends to increase stress in a person," said Dr. Joshi.

The Hindu, Chennai - Sep. 11, 2013

Don't ignore the alarm bells

Experts say ringing sound in the ear a sign of beginning of hearing loss

Mohan Karnaswaran, senior ENT Surgeon says, "Excessive cell phone usage can cause problems with hearing, and even leads to hearing loss. The first warning signs are warmth and pain in the ear after a long conversation on a mobile phone. If this persists, then it leads to tinnitus, a ringing sound in the ear. It takes some years to convert into serious damage. But the hearing loss is permanent, irreversible," he says.

C. Jothin, senior ENT surgeon, says he sees between two or three patients complaining of hearing loss and gadness on a daily basis. Both are associated with excessive cell phone usage. Vijaya Krishna, consultant ENT surgeon, Madras ENT Research Foundation, says, "While we cannot stop using mobiles, we can certainly minimise usage. This is what we tell patients: speak only two to three sentences at a time, whereas a normal conversation would use low volume and a landline connection whenever possible."