Various Health Problems &

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.

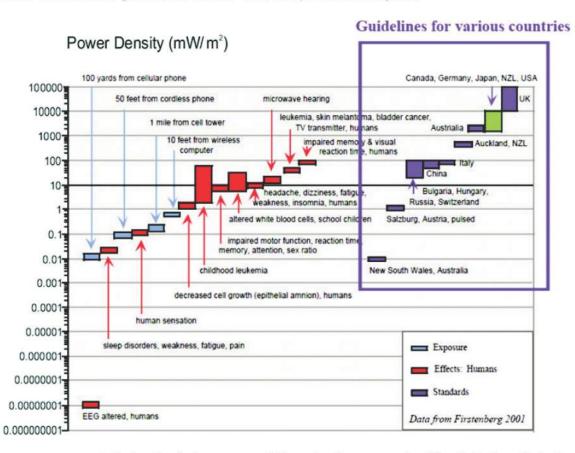


Figure: Guidelines, exposures and effects of radio frequency radiation at various power densities. Data from Firstenberg 2001. The diagram was prepared by Dr. Magda Havas, Trent University, Canada

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 5, 2014, Citizens Group of Mumbai wrote a letter to DOT Minister Shri Ravi Shankar Prasad to adopt lower radiation norm 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, we 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 solu-

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/Agu3M9bnQRo

Juhi Chawla's video on safe use of cell phone

In a very simple way, Bollywood Actress Ms. Juhi Chawla has explained safe use of cell phone in a short video, which can be seen at: http://youtu.be/RxxCkfTN- o



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 these in my next newsletter. Please mention whether you want your name to be quoted or not. You can also call me during the day on: (022) 2576 7436 or (022)

NEWSLETTER 2014

Cell Phone/Tower Radiation Hazards and Solutions

Issue 3

Electrical Engineering Department, IIT Bombay, Powai, Mumbai Tel.: (022) 2576 7436, email: gkumar@ee.iitb.ac.in

April-June 2014

Editor's Column



with use of mobile and cordless phones. Epidemiological evidence shows that ing FCC/IEEE and ICNIRP public safety limits are not adequate to protect public

> IIT Bombay, Powai, Mumba Tel.: (022) 2576 7436, email: gkumar@ee.litb.ac.in

In my previous two newsletters, I had mentioned about several health hazards due to overuse 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 Sep. - Oct. 2013, several people asked me to give more details of the associated health problems due to high radiation. I had started preparing the third newsletter to address these issues but due to series of events that happened in the last few months, there has been considerable delay in coming out with this third

On Dec. 2, 2013, a book entitled, "Mobile Phones and Public Health - Myth and Reality" was launched by Dr. Michael Repacholi, Ex-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

On Dec. 10, 2013, doctors from the Indian Medical Association-Mumbai (W) addressed the press conference and its President said, "Cell tower radiations pose no threat to people's health." On the contrary, during Dec. 20-21, 2013 at a National Conference on "Mobile Phones & Electromagnetic Pollutions Hazards: Challenges & Solutions" organized at Jaipur, there were nearly 20 invited speakers, 9 oral presentations and 49 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 Phone/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 speaking

In the meantime, the Honorable High Court Allahabad had 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, Kharagpur, Kanpur, 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 for establishment 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.

o attend 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/228724959/

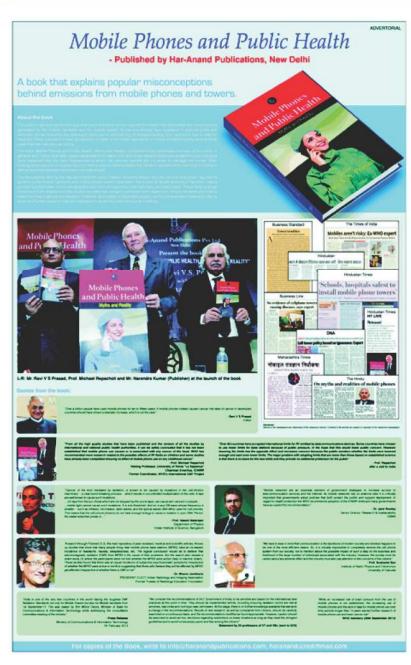
On Feb. 25, 2014, Indian Express reported, "IIT prof 'hyped' cell radiation, daughter sold protective shields". However, on every forum, I always emphasize on adopting better radiation norms and reducing the transmitted power from cell towers. If cell operators reduce the transmitted power, then who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

On April 15, 2014, Times Of India reported, "Health risk from Wi-Fi devices rising". It stated that "there is a consistent pattern of increased risk for glioma and acoustic 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". More details are given on Page

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 Page 2. Harmful effects of radiation of cell phone and towers on: DNA damage leading to cancer on Page 3, infertility on Page 4, hearing loss on Page 5, vision problems on Page 6. WHO latest comments on cell towers, proposal for ban in Wi-Fi in schools in many countries, etc. are covered under Global Studies on Page 7. Various health hazards due to cell phone/towers and more are on

Comments on the book entitled, "Mobile Phones and Public Health - Myths and Reality"



A book entitled, "Mobile Phones and Public Health - Myth and Reality" edited by Ravi V.S. Prasad and published by Har-Anand Publications, New Delhi, 2014 was launched by Dr. Michael Repacholi, Ex-head of the EMF Project of WHO at Press Club, Mumbai on Dec. 2, 2013. On Jan. 9, 2014, there was a full page advertisement of the book in Hindustan Times and Bombay Times. I have never seen a full page advertisement of any book in a national newspaper as it costs a lot of money. However, after reading the content of the advertisement, I could guess that cell operators and their associates are behind this, who are trying to create confusion in the mind of the people and giving them false assurance that they are safe from high cell tower radiation.

I read this 132 pages book and saw that my name has appeared at 12 places. I found out that the editor, Ravi V.S. Prasad is a lobbyist for the telecom sector. Majority of the authors, who wrote chapters in the book, are associated with cell phone/tower industries in one way or the other. Also, some of the authors have never worked in the areas of microwaves, antennas, microwave heating, biological effects, etc. "So what makes them experts to write the chapters in the

The book was launched by Dr. Michael Repacholi, who controlled the WHO EMF project from its inception and during his tenure, WHO received large funding from the Telecom Industry. I had given the details of his association with the industry in my second newsletter.

In this book, they compared radiation from the sun with cell tower radiation and say sun radiation density on the earth is 1000 W/m2, which is thousands of times larger than cell tower radiation density of 0.1 W/m2, hence cell tower radiation is not harmful. However, exposure to the sun is not continuous whereas microwave radiation due to cell tower antennas is 24x7. People who do sun bathing for long hours have reported skin tanning, skin burning and even skin cancer. Sun radiation causes heating from outside to inside. The human skin acts as an insulator as well as clothes act as a protective shield from the sun. Also, the skin may start sweating and air breeze takes away much of the heat. Whereas, microwave radiation from cell phone and cell tower penetrates the skin and at a frequency of 900 MHz, water (including blood, fluid, etc.) molecules vibrate at a speed of 900 million times per second, which creates friction, damages DNA and also leads to heating. This heating is from inside to outside and the heat is trapped inside the human body with no means to escape through the skin. The effect of microwave radiation is cumulative in nature and the harmful effects are noticed after a few months to a few years depending upon the intensity of the radiation.

The authors compared lonizing radiation versus Non-lonizing radiation of cell phone/tower, the detailed reply is given on Page 3 of this newsletter. They wrote that there are no conclusive evidences of health hazards due to cell phone and cell tower radiations and quoted studies and reports, which mentioned that there are no health hazards but they ignored thousands of papers stating that there are health hazards to the people, birds, animals, plants, trees, etc.

Please see the following links: http://www.powerwatch.org.uk/science/studies.asp www.bioinitiative.org

Do they want millions of people to get affected before they accept, "it is conclusive" just like cigarette industry?

My detailed comments on the book can be seen at: http://www.scribd.com/doc/228921155

GLOBAL STUDIES

WHO Questions & Answers dated Sep. 20, 2013 states:

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 a 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 is generally more than a 1000 times higher than from base stations", which implies base station radiation is 1/1000th of mobile phone radiation. I have measured radiation density of cell phones in the Antenna Lab at IIT Bombay, the maximum average value is less than 100 mW/m², when cell phone is in the talk mode. So, WHO answer implies that base station radiation should be less than 100/1000 = 0.1 mW/m². According to me and the Bio-Initiative Reports of 2007 and 2012, less than 0.1 mW/m² is safe. However, in India, we have adopted 450 mW/m² for 24x7 exposure, which is extremely high. WHO must come out with a safe limit of radiation density for continuous lifetime exposure.

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 really should 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 previously 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 from mobile (and cordless) phones should be regarded as an IARC Class 1 "human carcinogen". Alasdair Philips of Powerwatch (U.K.) says, "The criteria on strength, consistency, specificity, temporality, and biologic gradient for evidence of increased risk for glioma and acoustic neuroma were fulfilled."

In April 2014, it was reported that "Health risk from Wi-Fi devices rising". It stated that "there is a consistent pattern of increased risk for glioma and acoustic 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 24x7 exposure.

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

Wi-Fi emits microwave radiation in the same frequency range as that of microwave oven. Both 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:

Australia, Italy, New Zealand, Switzerland, Canada, etc. Even, European Council Issued a Report Warning of the Use of Mobile Phones and WiFi for Children. American Academy of Environmental Medicine Advises Against WiFi in Schools.

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

Many related reports and videos can be seen at: http://wifiinschools.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 500 watts per channel (depending on the tower height), the majority of cellular base stations in urban and suburban areas operate at an ERP of 100 watts per channel or less. 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 ERPs are normally used. In urban areas, an ERP of 10 watts per channel (corresponding to a radiated power of 0.5 - 1 watt) or less is commonly used. For PCS 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 roof top 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?

http://health.india.com/news/75-kids-suffer-from-bad-vi-sion-and-dont-even-know-it/

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 Advance 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.

http://ibnlive.in.com/news/smartphones-are-causing-vision-problems-to-soar/415448-11.html

'Smartphones are causing vision problems to soar'

Aug 19, 2013

London: Smartphones are causing sight 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 per cent increase in patients with advancing myopia (short-sightedness), according to David Allamby, a leading laser eye surgeon in the UK.

Research has shown that users hold their handsets 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 eye has significantly increased. Not only has the quantum of school work increased, new technology has also led to massive eye strain. Says Ophthalmic surgeon Dr Keiki Mehta, "Ideally, for a growing child, nearpoint application, which includes reading on computers and tablets, should be restricted to two to four hours per day." Dr. Nikhil Nasta says refractive errors (spectacle number) 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

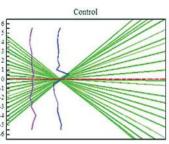
India loses \$37bn because of poor eye vision: Study

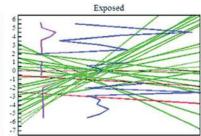
India loses \$37 billion (about Rs 203,500 crore) in annual productivity on account of poor eye vision among its people. A recent study by WHO estimates that there are 550 million people in India - about half its population — who require vision correction but are not adopting means to correct it.

In India, 41% of children (under 18 years) are estimated to need visual correction but are not corrected. About 42% of workers, 42% of drivers and 45% of elderly people are similarly placed.

Editor's comments: One of the additional reasons could be 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 of the person using the phone for hours, would get these 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 (no exposure to radiation) and exposed eyes, respectively. Prolonged exposure to microwave radiation can lead to macroscopic and microscopic damage to the lens and part of this damage does not heal and accumulates with time.





Reference - Dovrat A., Berenson R., Bormusov E., Lahav A., Lustman T., Sharon N., Schächter L., Localized effects of microwave radiation on the intact eye lens in culture conditions, Bioelectromagnetics 26:398^405 (2005)

Ionizing vs Non-Ionizing Radiation - DNA Damage and Cancer

Cell operators and their associates claim that Ionizing radiation (UV Rays, X-Rays, Nuclear, etc.) can break the bond due to its higher frequency and hence higher energy, whereas cell phone/tower radiation is Non- Ionizing radiation and has much lesser frequency and hence lower energy, which cannot break the bond and hence cannot damage DNA or cause cancer.

The claim that there cannot be any mutation (or damage) in DNA (biological reaction) due to cell phone frequencies, which is non-ionizing radiation is incorrect. Even though microwave frequency is comparatively lower, which implies lower energy due to the equation: Energy $E = h \times f$, where h is Planck's constant and f is frequency. However, Energy is also defined as $E = power \times time$. For example, standing for longer time in the sun, one will feel hot, hence time is important. Also, standing in the sun for the same duration during noon or evening, one will feel the heat more during noon as sun's intensity is higher (i.e., power is more). In both cases, only $E = h \times f$ will give the same value, and hence cannot explain this phenomenon, so one has to use $E = power \times time$.

Prof. Henry Lai of the University of Washington, USA observed single and double stranded breaks in DNA from microwave exposure.

Figure 1 shows an unexposed control bundle of DNA, Fig. 2 shows DNA breaks after exposure to X-Ray, and Fig. 3 shows a comet of DNA with exposure to cell phone radiation, which clearly indicates that DNA damage has taken place. When damage to DNA is greater than rate of DNA repaired, there is the possibility of retaining mutations and initiating cancer.



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.

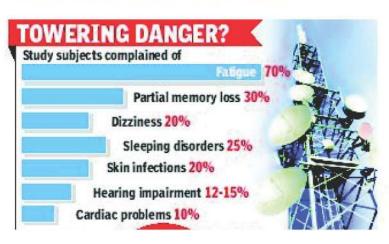
DNA, Ahmedabad - Nov. 24, 2013

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



Cellphone 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 Netaji Subhas Chandra Bose Cancer Research Institute (NSCRI). Continued exposure to electromagnetic waves from cellphone towers could even cause cancer, the study warns.

Researchers from the institute studied and observed 200 people residing in areas with a high density of cellphone towers in central Kolkata. 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 reverts to the earlier stage once they return.

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Cell Phone/Tower Radiation Effect on Infertility

Cell Phone/Tower Radiation Effect on Infertility Hindustan Times, Mumbai - Sep. 19, 2013

46% Indians in 31-40 age group seeking medical help are infertile: survey

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.

Times of India, Mumbai - Sep. 20, 2013

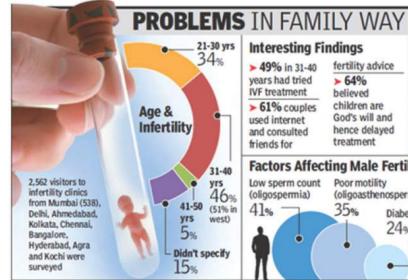
Times of India, Mumbai - June 11, 2014

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.

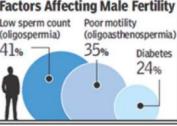
Infertility experts say 63% childless couples consulting them in prime reproductive age

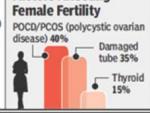
Mumbai: Underlining the growing infertility rate among Indian couples, a nine-city survey has found that 46% of the couples who landed up at infertility clinics belonged to the prime reproductive age group of 31 to 40. Of them, 49% had already undergone IVF or in vitro fertilization, a treatment for infertility.

When infertility experts were consulted in a parallel survey, they said 63% of couples seeking treatment were in the 31-40 age group. The survey by a pharmaceutical company interviewed 2,562 people who visited 100 clinics of doctors or attended patient camps. Infertility is defined as the inability to conceive after two years of trying for a baby.



Interesting Findings fertility advice > 49% in 31-40 years had tried **>** 64% IVF treatment believed > 61% couples children are God's will and used internet hence delayed and consulted treatment friends for Factors Affecting Male Fertility | Factors Affecting Low sperm count Poor motility 41% 35%





Factors Behind Rising

> Delayed marriages

> Delayed child-

Dropping sperm

Sexually transmitted

> Poor ovarian reserve

bearing

count

diseases

Infertility

➤ Lifestyle

alcohol, etc

changes -

smoking.

Editor's comments: In 2006, the American Society for Reproductive Medicine reported that use of cell phones by men is associated with decrease in semen quality, sperm count, motility, viability and normal morphology and is related to the duration of cell phone use. Studies have found 30% sperm decrease in intensive mobile phone users, in addition to damage of sperms. The average sperm count was found to be at 59 million sperm per milliliter of seminal fluid compared to 83 million for men not continually exposed to mobile phone radiation. Similarly, the study found that motility - the power of the sperm to swim - was affected by mobile phone transmissions. Men who made lengthy calls had fewer rapidly motile sperm, 36.3 per cent compared with 51.3 per cent for men who made no calls.

It was found that not only does using a phone affect a man's sperm quality, but simply having it switched ON in a pocket was enough to do damage as mobile phones periodically but briefly transmit information to cell towers to establish connection. Radiation from cell phone can also produce DNA breaks in sperm cells that can mutate and cause cancer. Damage to sperm DNA increases the risk further and can pass on the genetic changes to subsequent generations.

Even ladies carrying cell phones in their pant pockets have reported that they are developing menstrual and reproductive problems, which may be due to the radiation from their cell phone, which is very close to their ovaries. Due to these reasons it is advisable to avoid or have minimum exposure to any wireless device near reproductive organs. Men planning to father children are advised to make sure that they significantly cut down the use of wireless devices well in advance of fertilization to reduce the chance of procreation with damaged

Radiation from mobiles tied to male infertility

Kounteya Sinha | TNN

London: British scientists announced on Tuesday that men who keep a mobile phone in their trouser pocket could be inadvertently damaging their chances of becoming a father, thanks to radio-frequency electromagnetic radiation emitted by the devices.

Most of the global adult pop-ulation own mobiles and around 14% of couples in high and middle income countries have difficulty conceiving. Dr Fiona Mathews at the University of Exeter the findings from 10 studies, including 1,492 samples with the aim of clarifying the potential role of this environmental expo-

Cell Phone Radiation Effect on **Hearing Loss**

Have you ever noticed warm sensation in ear after using mobile phone for a long time?

You are not alone

There is a large population reporting ear warming, partial to complete hearing loss and even ear tumor. It was reported on Sept. 19, 2007:

http://www.webmd.com/news/20070919/cell-phones-may-cause-hearing-loss

Long-time mobile phone users who talk more than an hour a day on the devices may be more likely to have high-frequency hearing loss, researchers say. Those who used the mobile phones for more than four years had more hearing loss in high-frequency ranges in their right ear, the ear most held the phone to, than those who used the mobile phone for one to two years, says Naresh K. Panda, MS, DNB, chairman of the department of ear, nose, and throat (ENT) at the Post Graduate Institute of Medical Education and Research in Chandigarh, India

DNA, Mumbai - Nov. 16, 2011

Talking too much on the phone could cause high hearing frequency loss

Every year, medical students at Nair and JJ hospitals are screened for health problems. This year, the results were startling around 50% of the 300 students were found suffering from the high hearing frequency loss. "We found that those with high hearing frequency loss would talk on their mobile phones for hours and listened to loud music on their earphones," said Dr Joyti Mohite, associate professor, audiology and speech therapy Department at Nair Hospital.

People with high frequency hearing loss show symptoms like inability to hear consonants f, s, t, and z, failure to hear high pitched sounds, tinnitus (abnormally loud sounds in the ear canal for some duration), difficulty 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.

Indian Express, Mumbai - July 18, 2012

Hearing it RIGHT

Doctors claim that there have 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 BPOs have complained of ringing ears (Tinnitus), warm pinna (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 Ghaisas of Ghaisas 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 Bhatia and Wadia hospitals, said he had been getting many patients who complain of pain in the ears and even hearing loss.

Prolonged cellphone 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 cardio-vascular diseases," said Dr Joshi.

Doctors say the gadget addiction also leads to hormonal imbalance. "Hormones like endocrine and melatonine 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

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Don't ignore the alarm bells Experts say ringing sound in the ear a sign of beginning of hearing loss

Mohan Kameswaran, 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 lead to further damage, but the hearing loss is permanent, irreversible," he says.

C. Jacinth, senior ENT surgeon, says he sees between two or three patients complaining of hearing loss and giddiness on a daily basis. Both are associated with excessive cell phone usage. Vijava Krishnan, 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 for a few minutes at a time; prefer a wired hands-free device; use low volume and a landline connection whenever possible.