Electromagnetic Fields (EMFs) and Extremely Low Frequency (ELF) Information

Intro

For over 50 years, the American Academy of Environmental Medicine (AAEM) has been studying and treating the effects of the environment on human health. In the last 20 years, our physicians began seeing patients who reported that electric power lines, televisions and other electrical devices caused a wide variety of symptoms.
By the mid 1990's, it became clear that patients were adversely affected by electromagnetic fields and becoming more electrically sensitive. In the last five years with the advent of wireless devices, there has been a massive increase in radiofrequency (RF) exposure from wireless devices as well as reports of hypersensitivity and diseases related to electromagnetic field and RF exposure. Multiple studies correlate RF exposure with diseases such as cancer, neurological disease, reproductive disorders, immune dysfunction, and electromagnetic hypersensitivity.

As stated by: REBA GOODMAN AND MARTIN BLANK (Department of Pathology, Columbia University Health Sciences, New York, USA)
It is now well established that low frequency (<300 Hz) electromagnetic (EM) fields induce biological changes that include effects ranging from increased enzyme reaction rates to increased transcript levels for specific genes. The induction of stress gene HSP70 expression by exposure to EM fields provides insight into how EM fields interact with cells and tissues. The large amount of published data available on the heat induced stress response (i.e., 'heat shock') offers a model for studying and comparing the EM field-induced stress response. Results from these and other studies have yielded important clues to EM field interaction with cellular systems, particularly at the molecular LEVEL.

SOME SIMPLE SOLUTIONS

Obviously in this 'wired' world we cannot simply switch off the mobile or even the Wi-Fi in our homes or offices.

- We can however make sure to sleep with the mobile phone away from our bed side table
- Use the 'loud speak or hands free' option rather than holding the phone next to our ears
- Reduce the time that our children have on their personal mobiles/tablet computers
- Switch off your Wi-Fi modem at night
- Where possible use 'harmonising' wave form discs, cards and or bar strips, there are also plug in wave form harmonizers
- Drink as much energised living water as possible
- Eat healthily, take walks in the countryside and supplement with minerals and antioxidants

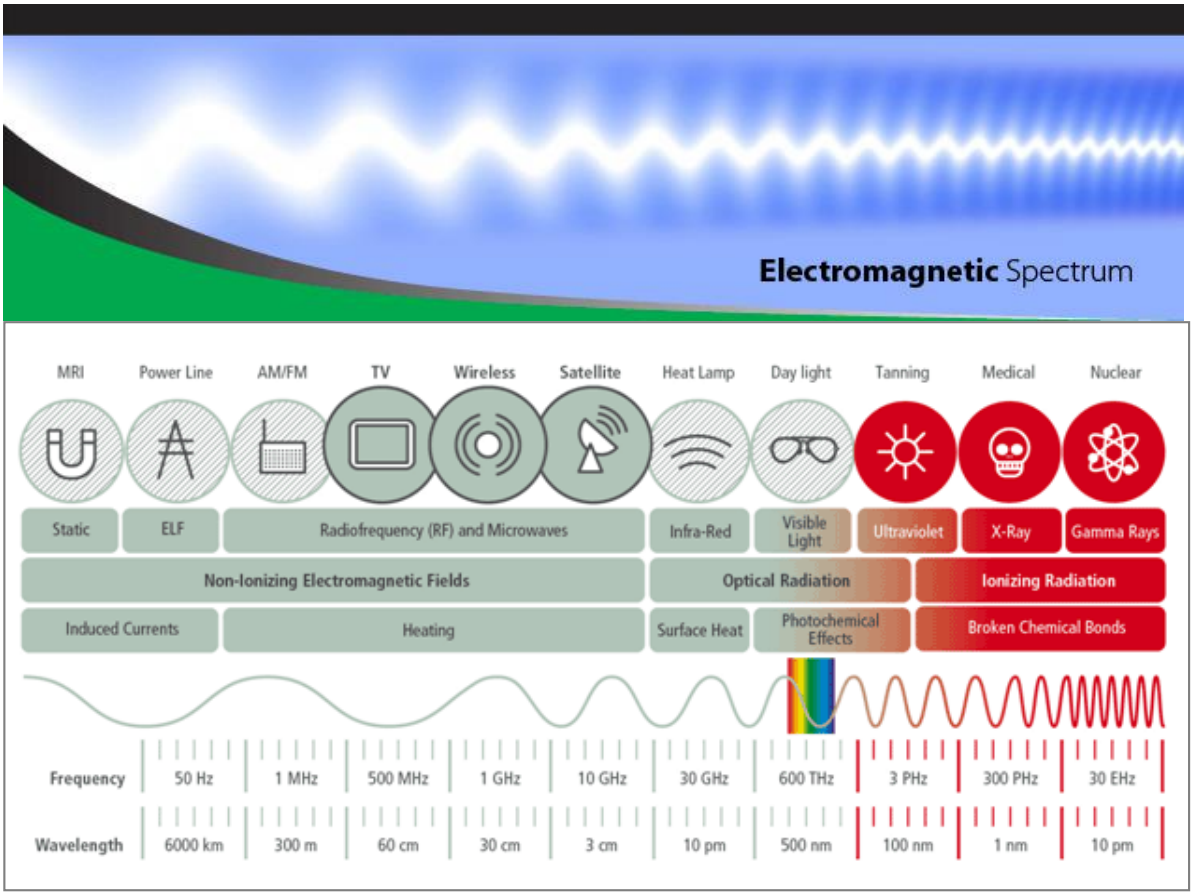
Some Interesting Papers and videos of EMF

Professor Emeritus Martin Pall: https://www.youtube.com/watch?v=Pjt0iJThPU0

PDF papers by Prof Em Martin Pall (Washington State University) – PDF 1 – PDF 2

Common Sources of EMF & ELF: https://www.youtube.com/watch?v=aAnrmJ3un1g

(Professor Martin Pall has allowed us to use the video and papers for information purposes only and to help build awareness of the effects of EMF and ELF on people's lives – we thank him immensely for allowing this)



Type	Frequency Range	Sources
Computer Monitor	50-60Hz	Computers/Laptops/Tablets
Mains Power	50Hz	Household electrical supply
Electromagnetic AF (alternating frequency)	50-60Hz	Electromagnetic emissions from AC (alternating current) devices and power sources: Household and office power supply Household electricals (washing machine, dishwasher, refrigerators) Motors using AC power
Esmog		General pollution to all EMF/ELF from electrical supply and products
Electrostatic Field		Static created when materials store different charges and dissipate these through grounding or touch. Synthetic materials accumulate electrostatic around electrical

		devices. Use natural materials as much as possible.
Extremely Low Frequency	3-30Hz	Power Lines Underground Power Lines Household Electrics Electric Meters Water Pipes
Low Frequency	30-300KHz	Long distance communication Aircraft beacons Navigation systems Weather stations Time signal stations
Magnetic Constant Field		Electric Motors and generators Alternators Magnets
Microwave	300MHz – 10GHz	Microwave ovens GPS Speed Cameras Doppler Radar Antennas 3G Phones Wireless LAN (wifi) Telecomms Satellite Cosmic (background)
Mobile GSM 0.9GHz		Mobile phones operating at 0.9GHz
Mobile GSM 1.8GHz		Mobile phones operating at 1.8GHz
Radio Frequency	3KHz – 3GHz	Shipping and aircraft communication Shortwave radio Cordless Phones Satellite Radio Broadcast Radio Astronomy Remote Sensing
Traction Current		Railways Railway lines Railway Stations Rail overhead lines and power
TV Screen	500MHz	Cathode Ray Flat Screen/Plasma

USA Environmental Protection Agency – safety guidelines for electrical use (EMF in milligauss – safety operating levels 0.5 – 2.5mG)

The table below gives you a good idea about the exposure to everyday electrical items which breach the US EPA safety guidelines of 0.5-2.5mG of exposure. Even at 3 feet distance many of the items still have a potential exposure limit higher then recommended.

Electrical Source	Exposure up to 4 inches	Exposure at 3 feet
Blender	50-220mG	0.3-3mG
Clothes Washer	8-200mG	0.1-4mG
Coffee Maker	6-29mG	0.1mG
Computer	4-20mG	2-5mG
Fluorescent Lamp	400-4,000mG	0.1-5mG
Hair Dryer	60-20,000mG	0.1-6mG
Microwave Oven	100-500mG	1-25mG
TV	5-100mG	0.1-6mG
Vacuum Cleaner	230-1,300mG	3-40mG
Airplane	50mG	N/A