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ELECTROMAGNETIC POLLUTION

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Electromagnetic pollution is type of pollution that is caused by electromagnetic activity. Considered a type of electro smog. In today's world has to deal with electromagnetic pollution as a result of the exponential proliferation of wireless communication devices and the infrastructure that supports them. Radiation exposure varies among the population, and as technology develops. An invisible energy wave is released by power lines, computers, microwaves, Wi-Fi routers, and other gadgets. electromagnetic pollution has an indirect impact on people's quality of life. Radiation can be estimated regarding force or power, electrical, attractive and electromagnetic recurrence. Power transmission lines and electrical gadgets are viewed areas of strength for as of electromagnetic fields and radiation of low frequencies yet extreme focuses. The possible symptoms are: sleep disorders, insomnia, burning of the skin, headaches, lack of concentration, fatigue and weight loss. Low-frequency electromagnetic radiation poses little danger to human health, but long-term exposure to it could be harmful, especially to the nervous system and cognitive function of the brain.

The main sources of low-frequency electromagnetic fields are high-voltage lines, electrical installations or household appliances (refrigerator, television, radio, microwave oven or any other appliance connected to the outlet). Sources of high-frequency fields are the transmitters used for radio and TV transmissions, antennas for mobile communications, fixed wireless telephones, maritime and air navigation systems, radars. So, almost all man-made electromagnetic devices, from common sockets to parabolic and telecommunications antennas, have energy losses in the environment, which is called electromagnetic pollution.

In order to limit its effects as much as possible, it is vital to respect the rules established by the authorities and to carry out constant monitoring, but also to take into account certain recommendations in this regard.

[1] When using a mobile phone, the safest way to limit electromagnetic pollution is to use speakerphone mode or Bluetooth. This means emitting a lesser level of radiation

[2] It is also not endorsed to use the mobile phone in elevators, cars, trains or airplanes, because it consumes more energy and produces more radiation in closed metal spaces.

[3] Detaching your Wi-Fi router when not in use is an effective protection measure against electromagnetic pollution.

[4] Activities with possible harmful effects are subject to an assessment process called environmental audit.

[5] Also, the companies that have environment authorization must collaborate with a consultant who gathers the most important information regarding the activities that have the potential to generate various environmental problems.

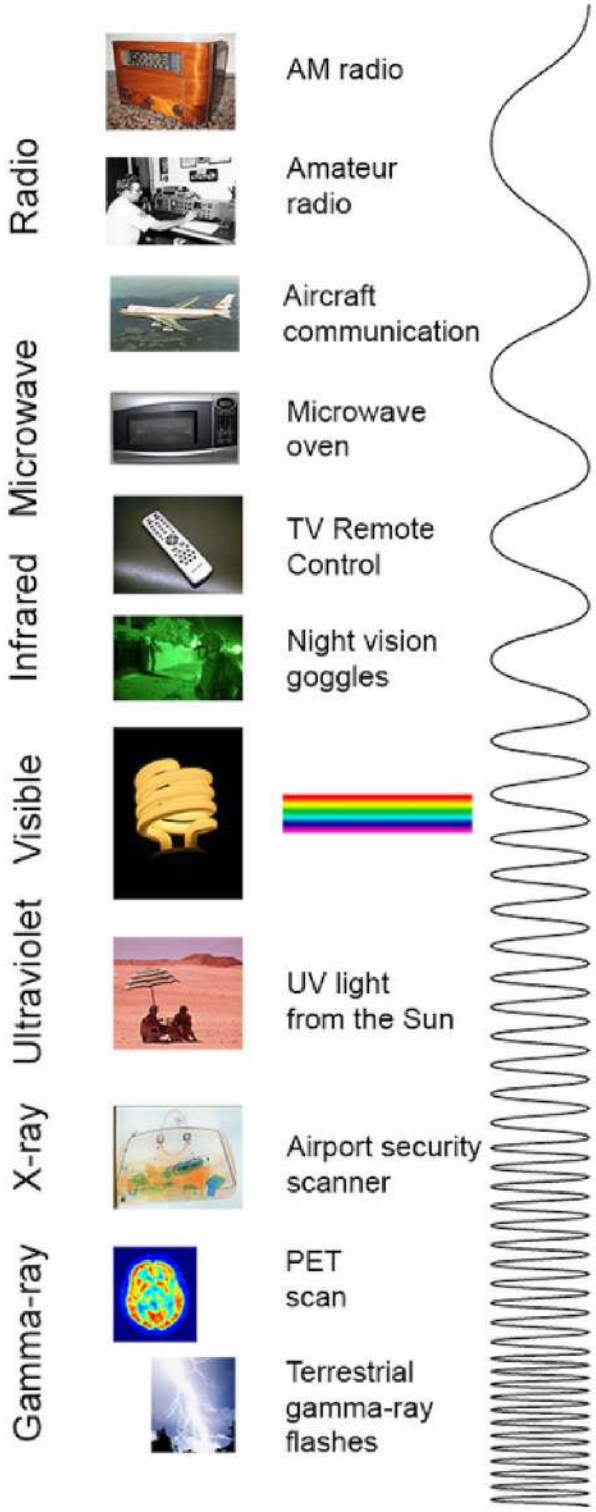
[6] The International Non-Ionising Radiation Committee (INIRC) of the International Radiation Protection Agency (IRPA), collaborating with Environmental Health Division of World Health Organisation have developed health criteria documents on non-ionising electromagnetic radiation which are part of the WHO Environmental Health Programme.

[7] The health criteria documents issued by INIRC covers the electromagnetic fields in the frequency range from 100 kHz to 300 GHz and contains scientific details on physical characteristics, measurements and instrumentation, sources and applications of non-ionising electromagnetic radiation.

EMI shielding refers to the reflection and/or absorption of EM radiations using a material. The material acting as a shielding material prevents the penetration of radiations of high frequencies such as radio waves.

Electric fields can be shielded by nearly any conductive material; a thin sheet of aluminium is often used in electronics to achieve robust shielding. Metal mesh (like chicken wire), metallized cloth, and some carbon- or metal-filled plastics can also provide varied levels of protection from electric fields.

Although an invisible enemy, electromagnetic radiation is a common and rapidly growing environmental problem. Today, no matter where you are, you are exposed to varying degrees of radiation, and the levels will continue to rise as technology advances. Therefore, in order to combat this phenomenon, it is essential to understand the concept of electromagnetic pollution as well as possible and to apply the necessary measures.



THE ELECTROMAGNETIC SPECTRUM FROM LOWEST ENERGY/LONGEST WAVELENGTH (AT THE TOP) TO HIGHEST ENERGY/SHORTEST WAVELENGTH (AT THE BOTTOM). (CREDIT: NASA'S IMAGINE THE UNIVERSE)