Anna Norets O.M. Galushko, research supervisor V.V. Gubkina, language adviser SHEI "National Mining University", Dnipropetrovsk

Is Wi-Fi Signal Harmful to Human Body?

Living in a world of technology is great as everything is so fast and information is one touch/click away. But, sometimes, it has its drawbacks and it would be stupid not to ask yourself questions like: "is Wi-Fi safe?" It's only natural to find the answer to this question by yourself, considering that every smartphone and laptop used every day is connected at least few hours per day to a Wi-Fi hotspot.

So let's find out is Wi-Fi signal really harmful to our bodies? Every wireless signal in the world works by way of radio waves (frequencies). All these gadgets that we use to connect or to stream Wi-Fi signals work under safety standards in order to protect us from harmful effects. Every such device has its own emission of microwave radiation, especially when you have your Wi-Fi card on and you are connected to a router.

Wi-Fi uses radio (2,500,000,000 Hz), which is on the same spectrum as light. Solar ultraviolet light has more power, and a much higher frequency (10,000,000,000,000,000 Hz) and can give you sunburn after 15 minutes of direct exposure. So, you'd have to lie on your Wi-Fi-router for more than 1,500,000 minutes to acquire a Wi-Fi-burn.

Wi-Fi has an output of 0.1 to 0.5 watts. You'd have to lie on top of a Wi-Fi router for 10000 minutes in order to acquire the same effect as cooking yourself in a microwave for 1 minute. Every time you double the distance between you and the router, you will reduce the intensity of the transmitted energy by 3/4. This means that the highest radiation can be found closest to the router, and as you move away, you will encounter lower radiation (the same principle of the <u>inverse square law</u>). Shortly speaking, don't sleep on your Wi-Fi as it could hurt you. In other case you are pretty safe.

Although some people reported symptoms like headache, fatigue, stress, sleep disturbances, skin symptoms and muscles stress, all associated with the presence of a Wi-Fi router in their home or at the working space, but it happens more often amongst people who suffer from electromagnetic hypersensitivity.

World Health Organization conducted a study on this subject and concluded that there is no current evidence to confirm the harmful effects of Wi-Fi signal (low-level radiation) on the human body. However, until concrete answers are found, it is difficult to know exactly what to do about these concerns. Keep your router at least 3 meters away from your body and when possible, use a non-wireless connection at your computer. Use this technology with moderation and it will prevent you from any disasters.