

## عنوان مقاله:

Survey of the Effects of Exposure to 900 MHz Radiofrequency Radiation Emitted by a GSM Mobile Phone on the Pattern of Muscle Contractions in an Animal Model

## محل انتشار:

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## خلاصه مقاله:

**Introduction:** The rapid development of wireless telecommunication technologies over the past decades, has led to significant changes in the exposure of the general public to electromagnetic fields. Nowadays, people are continuously exposed to different sources of electromagnetic fields such as mobile phones, mobile base stations, cordless phones, Wi-Fi routers, and power lines. Therefore, the last decade witnessed a rapidly growing concern about the possible health effects of exposure to electromagnetic fields emitted by these sources. **Materials and Methods:** In this study that was aimed at investigating the effects of exposure to radiofrequency (RF) radiation emitted by a GSM mobile phone on the pattern of contraction in frog's isolated gastrocnemius muscle after stimulation with single square pulses of 1V (1 Hz), pulse height of contractions, the time interval between two subsequent contractions and the latency period were measured. **Results:** Our findings showed that the pulse height of contractions muscle could be affected by the exposure to electromagnetic fields. Especially, the latency period was effectively altered in RF-exposed samples. However, none of the experiments could show an alteration in the time interval between two subsequent contractions after exposure to electromagnetic fields. **Conclusion:** These findings support early reports which indicated a wide variety of non-thermal effects of electromagnetic radiation on amphibians including the effects on the pattern of muscle extractions.

## کلمات کلیدی:

Non-Ionizing Radiation, Radiofrequency (RF), Electromagnetic Fields, GSM mobile phone, Muscle Contractions, Frog

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