

## Effect of Electromagnetic Waves Generated by Base Transceiver Station on Liver Enzymes in Female Rats

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### Article abstract:

*Background* : This study was investigating the effect of electromagnetic wave generated by mobile and base transceiver station (۹۰۰ MHz) on liver enzymes in both mature and immature female age.

*Materials and Methods* : In this study, ۲۰ rats Sprague Dawley white mature female age ۸ to ۹ weeks and weight ۱۸۰ to ۲۰۰ g and ۲۰ rats immature age ۳ to ۴ weeks, weight ۸۰ to ۱۰۰ g, each age group were randomly divided in two groups (control and test). Test groups, were daily for four hours and four different times exposed to electromagnetic waves with signal generator (۹۰۰ MHz), ۵-meter intervals. Control groups were kept at equal condition (temperature and light) in laboratory during experiment. After at the end experimental period, blood was collected by heart puncture of all animal. Exposure to EMF generated by BTS had significant effect on liver enzymes composition in mature and immature rats.

*Results* : AST, ALT and ALP in immature-test groups decreased significantly compared with their respective control groups ( $p < ۰.۰۵$ ). ALP in mature-test groups increased significantly compared with their respective control groups ( $p < ۰.۰۵$ ).

*Conclusion* : These result suggest that exposure to EMF generated by BTS has a deleterious effect on liver enzymes and that this effect is more sever in immature animals.

Keywords: Electromagnetic wave liver Enzymes, Rats, Signal generator,