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TITLE: Electromagnetic wave emitting products and "Kikoh" potentiate human leukocyte functions.

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ABSTRACT: Tourmaline (electric stone, a type of granite stone), common granite stone, ceramic disks, hot spring water and human palmar energy (called "Kikoh" in Japan and China), all which emit electromagnetic radiation in the far infrared region (wavelength 4-14 microns). These materials were thus examined for effects on human leukocyte activity and on lipid peroxidation of unsaturated fatty acids. It was revealed that these materials significantly increased intracellular calcium ion concentration, phagocytosis, and generation of reactive oxygen species in neutrophils, and the blastogenic response of lymphocytes to mitogens. Chemotactic activity by neutrophils was also enhanced by exposure to tourmaline and the palm of "Kikohshi" i.e., a person who heals professionally by the laying on of hands. Despite the increase in reactive oxygen species generated by neutrophils, lipid peroxidation from unsaturated fatty acid was markedly inhibited by these four materials. The results suggest that materials emitting electromagnetic radiation in the far infrared range, which are widely used in Japan for cosmetic, therapeutic, and preservative purposes, appear capable of potentiating leukocyte functions without promoting oxidative injury.

MAIN MESH SUBJECTS: *Electromagnetic Fields
Leukocytes / PHYSIOLOGY / *RADIATION EFFECTS