



Allergic Reactions Enhanced by Cell Phone Use

Cellular phone use for one continuous hour exacerbates allergic responses to dust and pollen in adults with eczema, according to a new study in *International Archives of Allergy and Immunology* (2002;129:348–50). The findings of the study, while only preliminary, suggest that the microwave radiation emitted from cell phones may increase sensitivity to specific allergens, potentially making allergy symptoms worse.

In the new study, 52 men and women between the ages of 21 and 52 with eczema and known allergies to dust and Japanese cedar pollen were divided into two groups.

One group was exposed to 60 minutes of continuous cell phone calling while the other group was not exposed to cell phone calls.

Skin scratch testing for dust, Japanese cedar pollen, histamine, and a control solution was performed before and after the cell phone exposure.

The diameter of the skin response was measured after 15 minutes, two hours, and four hours following the scratch to determine the degree of sensitivity. (A greater diameter of reaction on the skin suggests a stronger allergic response.)

Blood levels of substance P and vasoactive intestinal peptide (VIP), substances associated with causing allergy symptoms, were also taken at the same intervals.

Those exposed to microwave radiation from cell phones had a significant increase in the allergic response to dust and Japanese cedar pollen, as well as increased blood levels of substance P and VIP. In contrast, no significant changes in any measurement were seen in the group that had not received the phone calls. The enhanced allergic responses to dust and Japanese cedar pollen was maintained after two hours, but not after four hours in the group receiving cell phone calls.

In the current study, microwave radiation from cell phones stimulated the release of substance P and VIP, both of which are associated with triggering allergic reactions and are elevated in the secretions of people with nasal allergies. While stronger skin scratch responses were observed in cell phone users, it is not clear how microwave radiation affects symptoms of allergies, such as runny nose, itchy eyes, scratchy throat, and hives. It is also unknown whether shorter or longer periods of microwave radiation exposure would produce similar results. Future studies examining the effect of cell phones on allergy symptoms are needed to clarify these issues.

The effect of cell phones on human health is not clear thus far. Some studies suggest the microwave radiation emitted from cell phones may lead to brain cancer, but not all studies agree. Other studies suggest cell phones may cause other neurological problems, such as altered motor coordination and sleep difficulties. Since cell phones have only been in commercial use for just over a decade, it may be too soon to determine their long-term effects on health and disease.

Darin Ingels, ND, MT (ASCP), received his bachelor's degree from Purdue University and his Doctorate of Naturopathic Medicine from Bastyr University in Kenmore, WA. Dr. Ingels is the author of *The Natural Pharmacist: Lowering Cholesterol* (Prima, 1999) and *Natural Treatments for High Cholesterol* (Prima, 2000). He currently is in private practice at New England Family Health Associates located in Southport, CT, where he specializes in environmental medicine and allergies. Dr. Ingels is a regular contributor to Healthnotes and *Healthnotes Newswire*.