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**Study: Hand sanitizers ineffective in warding off flu, cold viruses**

By Karen Kaplan

If the presence of all those alcohol-based hand sanitizers makes you feel safe from disease, read no further.

The sanitizers — Purell, Germ-X and the like — started popping up everywhere last year after the outbreak of the H1N1 "swine flu" virus. But new research out of the University of Virginia finds that they are of no particular use in warding off the flu. They also failed to ward off rhinovirus, a major cause of the common cold.

The researchers, led by Dr. Ronald B. Turner, tested the sanitizers in real-world conditions. They asked 116 volunteers to carry around a sanitizer with "enhanced antiviral activity" and use it every three hours while they were awake. Another group of 96 volunteers followed their usual routines.

Researchers tracked them for 10 weeks, collecting specimens once a week to test for flu and rhinovirus. Additional samples were taken whenever a study participant complained of cold or flu-like symptoms.

It turned out that sanitizer users developed 12 flu infections per 100 volunteers, compared with 15 cases of flu per 100 volunteers in the group that didn't do anything special. In addition, there were 42 cases of rhinovirus per 100 volunteers among the sanitizer users, versus 51 for the control group. Neither difference was statistically significant.

The researchers surmise that hand transmission is less important for these viruses than previously thought. Perhaps public health officials should pay more attention to how these viruses spread through the air, they said.

Previously, Turner and colleagues had established that alcohol-based sanitizers removed rhinovirus from hands better than soap and water.

The results were presented Sunday at the annual meeting of the Interscience Conference on Antimicrobial Agents and Chemotherapy in Boston. The study was funded by the Dial Corp., which makes hand sanitizers and old-school soap.

**Words you may not know:**

**Rhinovirus-** any of a varied and widespread group of picornaviruses (a group of viruses) responsible for many respiratory diseases, including the common cold

**Surmise-** suppose that something is true without having evidence to confirm it.

**Transmission-** To cause to spread; pass on

*Read the article through once.*

1. What was the main idea?
2. In your own words, what was the outcome of the study?

*Read the article a second time. Highlight the variables in the article.*

1. What was the independent (test) variable?
2. What was the dependent (outcome) variable?
3. The last sentence states: “*The study was funded by the Dial Corp., which makes hand sanitizers and old-school soap*.” Could this create bias in the study? Why or why not?
4. Highlight and label the control group and the experimental group.