

# FIST-BUMP TO FIGHT GERMS



SOURCE: THE FIST BUMP: A MORE HYGIENIC ALTERNATIVE TO THE HANDSHAKE. MELA & WHITWORTH, 2014.

**C**old and flu season is here. And doctors have some advice on preventing the spread of germs: Fist-bump instead of shaking hands when you greet someone. In a study published in the *American Journal of Infection Control*, researchers from Aberystwyth University in the U.K. found that fist-bumping transferred 90 percent less bacteria than shaking hands. Even high fives were more hygienic than handshakes, transmitting half as much bacteria.

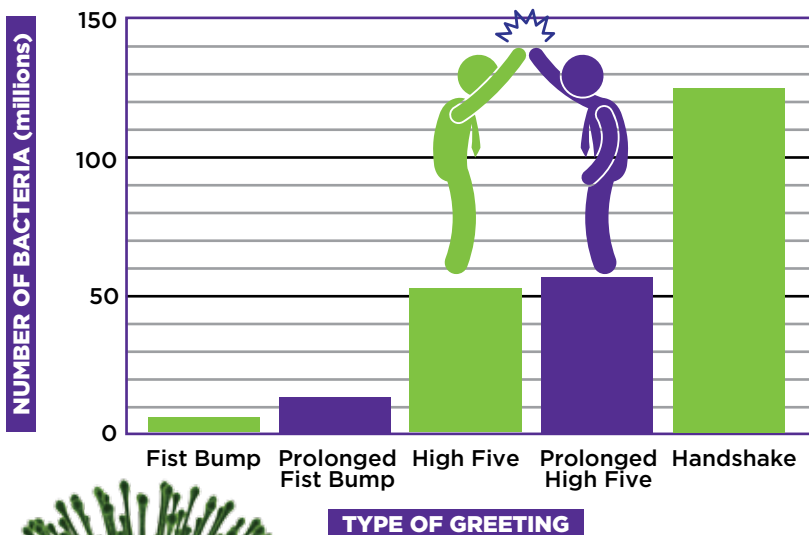
To study how different greeting methods transferred bacteria, one researcher wearing a latex glove dipped a hand into a vat of harmless bacteria, and then shook hands with another researcher (who was also wearing a glove). They evaluated how much bacteria had been transferred from one glove to the other. Then they repeated the steps for high-fiving and fist-bumping.

The researchers concluded that a larger contact area (e.g., a hand compared with a fist), as well as a longer length of hand-to-hand contact, contributed to an increase in germ transfer. So, to help stay flu-free this winter, go for a fist bump instead of a handshake.

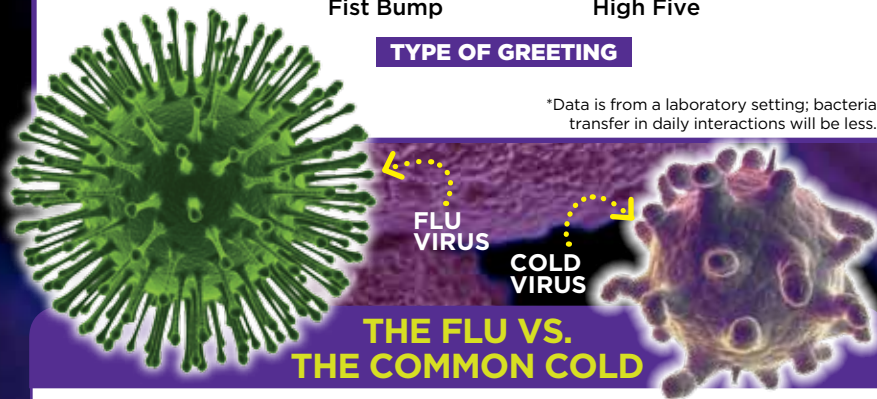
Find out more about the fist-bump study and cold and flu season with our charts and graphs.

—MONICA HEGER

## BACTERIA TRANSFER BY GREETING TYPE \*



\*Data is from a laboratory setting; bacteria transfer in daily interactions will be less.



## THE FLU VS. THE COMMON COLD

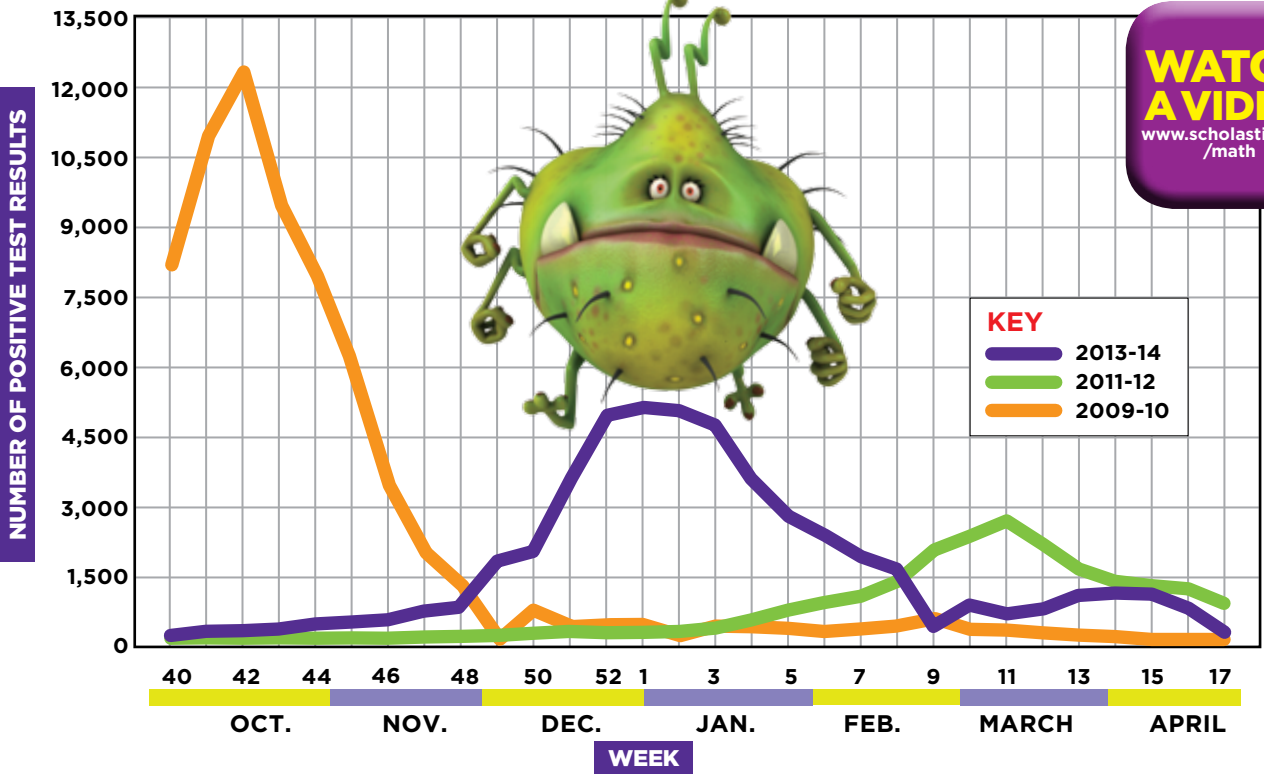
	FLU	COLD
<b>CAUSE</b>	3 main types of virus: A, B, and C, with subtypes like H1N1	More than 200 cold viruses
<b>SYMPTOMS</b>	Fever, sore throat, coughing, runny nose, body aches, fatigue	Sore throat, runny nose, coughing, sneezing, headaches
<b>IS THERE A VACCINE?</b>	Yes; a new one is made each year.	No; regularly washing your hands is the best prevention.
<b>NUMBER AFFECTED IN THE U.S. EACH YEAR</b>	15.8 million to 63.2 million	About 62 million
<b>DIAMETER OF VIRUS</b>	80 to 120 nanometers	30 nanometers

SOURCE: NIAID

## POSITIVE TEST RESULTS FOR THE FLU IN THE U.S. BY FLU SEASON\*

SOURCE: CENTER FOR DISEASE CONTROL AND PREVENTION'S FLUVIEW INTERACTIVE

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\*Flu season begins around the 40th week of the year, which usually falls in the first week of October.

### Answer the following questions based on the text, charts, and graphs.

- In the study, about how many bacteria were transferred during a handshake?  
 (A) 68 million (C) 124 million  
 (B) 72 million (D) 60 million
- About how many more bacteria were transferred by a high five than by a fist bump?  
 (A) 51 million (C) 119 million  
 (B) 47 million (D) 30 million
- About how many nanometers wider than a cold virus is the widest possible flu virus?  
 (A) 50 (B) 70 (C) 90 (D) 110
- Each year, about how many more people in the U.S. are affected by colds than by the lowest end of the range for flu?  
 (A) 1.2 million (C) 62 million  
 (B) 4.6 billion (D) 46.2 million

- In which month did the 2011-12 flu season reach its peak number of positive test results?  
 (A) January (C) March  
 (B) February (D) April

- About how many positive tests for flu were reported in the last week of 2013?  
 (A) 4,300 (C) 5,000  
 (B) 6,000 (D) 3,800

- At the beginning of the 2009-10 flu season, an outbreak of flu subtype H1N1 known as "Swine Flu" hit the U.S. What was the largest number of weekly positive tests reported during this time?

- Which week of the 2013-14 flu season saw the highest number of positive test results?

- Which flu season saw the fewest positive test results from January to March?

- Based on the data in the line graph above, can you predict the pattern of positive flu test results for 2014-15? Why or why not?