

Food Worker Handwashing and Food Preparation

EHS-Net Study Findings and Recommendations

The spread of germs from the hands of food workers to food is an important cause of foodborne illness outbreaks in restaurants. In fact, it caused 89% of outbreaks in which food was contaminated by food workers. Proper handwashing can reduce germs on workers' hands. It can also reduce the spread of germs from hands to food and from food to other people.

The U.S. Food and Drug Administration (FDA) advises that hands be washed before

- Making food.
- Putting on gloves to make food.

FDA also advises that hands be washed after

- Eating.
- Drinking.
- Using tobacco.
- Coughing.
- Sneezing.
- Using tissue.
- Preparing raw animal products.
- Handling dirty equipment.
- Touching the body (such as scratching your nose).

Improving food worker handwashing practices is critical. But first we need to know about current practices. We interviewed and watched food workers to collect data on these practices.

What the Study Described

This study described restaurant food workers' handwashing practices and focused on when workers washed their hands.

Food workers carried out about 9 activities an hour that should have involved handwashing.

Workers only washed their hands in a quarter (27%) of these activities.



This study was conducted by the Environmental Health Specialists Network (EHS-Net). EHS-Net is a federally funded collaboration of federal, state, and local environmental health specialists and epidemiologists working to better understand the environmental causes of foodborne and waterborne illness. Visit EHS-Net at <http://www.cdc.gov/nceh/ehs/EHSNet>.

What the Study Found

Workers carried out about 9 work activities an hour that should have involved handwashing. Yet handwashing rates were low. These rates suggest that workers either do not know when to wash their hands or they sometimes choose not to wash their hands.

Handwashing rates were highest before food preparation, suggesting that at least some workers may know that food needs to be protected from dirty hands.

Handwashing rates were lowest after workers touched their bodies (for example after scratching their noses). Workers may not know they need to wash their hands after touching their bodies or may think it takes too much time to wash their hands every time they touch their bodies. They also may not be aware that they are touching their bodies.

Workers wearing gloves when handwashing should occur were less likely to wash their hands at that point than were workers who were not wearing gloves at the same point. For example, workers who were wearing gloves while preparing raw animal product were less likely to wash their hands when they were done than were workers who were not wearing gloves. This suggests that glove use may lead to less handwashing.

EHS-Net Recommends

Restaurant management and food safety programs should

- Work to improve handwashing rates, particularly after activities involving raw meat.
- Revise food preparation activities to lower the number of needed handwashings. For example, a sandwich-making process could be revised to lower the number of times a worker has to handle raw meat. This would lower the number of handwashings needed and should increase the odds that workers will wash their hands as needed.
- Occasionally carry out observations like those done for this study to show where progress in handwashing is needed.

Researchers should conduct research to find out factors that affect handwashing and to explain the link between glove use and handwashing. This information could be used to address barriers to effective handwashing and ultimately reduce illness.

