

# TerranearPMC Safety Share

## Week of April 25, 2016 - Wash Those Hands!

Keeping hands clean is one of the most important steps we can take to avoid getting sick and spreading germs to others. Many diseases and illnesses are spread by not washing hands with soap and clean, running water. If you've ever had any doubts about the personal hygiene habits of people in your workplace, well, the fact is, a recent survey found that 62 per cent of men do not wash their hands after going to the bathroom. And while women are slightly better than men, 40 per cent admit they too, neglect good hygiene practices when it comes to using the restroom. This information is based on a survey of 100,000 people, carried out by a washroom services company, and is the largest analysis that focuses strictly on hand-washing habits.

The fact is, handwashing *with* soap removes germs from hands. This helps prevent infections because:

- People frequently touch their eyes, nose, and mouth without even realizing it. Germs can get into the body through the eyes, nose and mouth.
- Germs from unwashed hands can get into foods and drinks while people prepare or consume them. Germs can multiply in some types of foods or drinks, under certain conditions, and make people sick.
- Germs from unwashed hands can be transferred to other objects, like handrails, table tops, shopping carts or toys, and then transferred to another person's hands.
- Removing germs through handwashing therefore helps prevent many severe reactions such as diarrhea and respiratory infections and may even help prevent skin and eye infections.

OK, so many people may wash their hands with only water and as long as one washes ones' hands, that should be good enough, right? After all, what additional benefit does soap really have other than leaving a pleasant scent? Well, glad you asked! In another recent study (June 2013) by Michigan State University, researchers found that only 5 percent of people who used the bathroom washed their hands long enough to kill the germs that can cause infections. What's more, 33 percent didn't use soap and 10 percent didn't wash their hands at all. Supporting the first study mentioned above, men were particularly bad at washing their hands correctly.

So washing hands *properly* with soap is important. The fact is, feces (from people or animals) is a source of germs like *Salmonella*, *E. coli* O157, and norovirus that cause diarrhea, and it can spread some respiratory infections like adenovirus and hand-foot-mouth disease. These kinds of germs can get onto hands after people use the toilet or change a diaper, but also in less obvious ways, like after handling raw meats that have invisible amounts of animal feces on them (another reason why it is important to wash your hands frequently during food preparation – and that includes in your own kitchen!).

A single gram of human feces (which is about the weight of a paper clip) can contain one trillion germs. Germs can also get onto hands if people touch any object that has germs on it because someone coughed or sneezed on it or was touched by some other contaminated object. When these germs get onto hands and are not washed off, they can be passed from person to person and make people sick.



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So now we can see the importance of washing our hands with water *and* soap. End of discussion? Not quite. As it turns out, *how* you wash your hands is important too! According to the Centers for Disease Control and Prevention (CDC) it takes 15 to 20 seconds of vigorous hand washing with soap and water to effectively kill the germs. Yet studies find that that when people do wash their hands, they are only washing, on average, for about 6 seconds.

Believe it or not, people need to be trained on how to wash their hands. The CDC professes that this training needs to be administered down to the community level! People need to understand that proper handwashing:

- Reduces the number of people who get sick with diarrhea by 31%
- Reduces diarrheal illness in people with weakened immune systems by 58%
- Reduces respiratory illnesses, like colds, in the general population by 16-21%

Another startling statistic is that about 1.8 million children under the age of 5 die each year from diarrheal diseases and pneumonia, the top two killers of young children around the world.

- Handwashing with soap could protect about 1 out of every 3 young children who get sick with diarrhea and almost 1 out of 5 young children with respiratory infections like pneumonia.
- Handwashing education and access to soap in schools can help improve attendance.
- Good handwashing early in life may help improve child development in some settings.

Preventing sickness reduces the amount of antibiotics people use and therefore, reduce the likelihood that antibiotic resistance will develop. Handwashing can prevent about 30% of diarrhea-related sicknesses and about 20% of respiratory infections (e.g., colds). Antibiotics often are prescribed unnecessarily for these health issues. Reducing the number of these infections by washing hands frequently helps prevent the overuse of antibiotics, which is the single most important factor leading to antibiotic resistance around the world. In addition, proper handwashing can also prevent people from getting sick from germs that are already resistant to antibiotics, making medical treatment more complicated.

One researcher that has spent years surveying proper hygiene practices, previously worked as a chef and restaurant manager. This person stated that the recent findings have implications for both consumers and those who operate restaurants and hotels.

“Imagine you’re a business owner and people come to your establishment and get foodborne illness through the fecal-oral route – because people didn’t wash their hands – and then your reputation is on the line. You could lose your business.”

The CDC has concluded that hand washing is the single most effective thing one can do to reduce the spread of infectious diseases. In a way, that is very reassuring – that is, knowing that we each have the ability to control, at least to some extent, our susceptibility to contracting illnesses.

**A superior man is modest in his speech, but exceeds in his actions –**  
Confucius

