

Health pitfalls aplenty in public washrooms

Experts advise you to trust your eyes and nose if they're telling you 'yuck'

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You open the door of the gas station washroom, scanning and sniffing for biohazards. It seems safe. No overflowing urinals or toilets. No sewer stench and your shoes don't stick to the floor.

But research suggests that the riskiest part of your pit stop may come after you flush. Hot water taps usually have far more fecal bacteria on them than toilet seats do, University of Arizona microbiologist Charles Gerba says.

"I'm good at using my elbow," he says.

Scientists, Dr. Gerba in particular, have made a number of discoveries about public washrooms that could turn even the most laissez-faire traveller into a germaphobe.

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Consider that when you flush with the lid up, fecal bacteria are propelled into the air, landing on the tank, the floor, the seat and the toilet paper, unless it is protected by a dispenser. Hot-air dryers can also propel bacteria around the room.

When you turn the water on at the sink, it disturbs the microbes that dwell in a slimy matrix in the drain, says Gideon Wolfaardt, professor at Ryerson University. "Those cells get airborne," he says.

The surfaces with the most germs include the urinal handle, the lid of the sanitary napkin receptacle and the knob or handle of the door on the way out.

Visiting even the cleanest of public washrooms offers a chance of picking up an infection. But there are also plenty of germs in kitchens, schools and daycares, buses and subways, as well as at work, especially if you eat your lunch at your desk. Shopping carts are covered in microbes. So is the average shower curtain. There are potentially harmful bacteria almost everywhere microbiologists such as Dr. Gerba have looked.

Exposure to germs is part of life. How dangerous are public washrooms, really? How likely are you to catch something dreadful?

No one can say for sure, because it is difficult to link infections to bathroom visits. But the worst-case scenario is not reassuring. Feces can carry infectious agents for 20 diseases, and in North America you could be exposed to the microorganisms that cause hepatitis A, Norwalk, bacterial dysentery, meningitis and various forms of diarrhea, says Dr. Gerba, whose work is funded by companies that make disinfectants.

Infectious-diseases experts say there is almost no chance of getting a sexually transmitted disease simply by using public toilets, although scientists have found that the herpes virus can survive for up to 72 hours on inanimate objects, and *Trichomonas vaginalis*, a parasite that is spread through sexual activity, can also survive on moist objects. Still, you can pretty much rule out getting an STD, even if you sit down on the toilet seat.

"You get diarrhea, not gonorrhea," Dr. Gerba says.

But if you have a scratch or opening in your skin, he warns you could pick up staphylococcus and develop a puss-filled abscess.

Then there are the health problems you can get by putting off a bathroom break too long, says Jack Sim, founder of the World Toilet Organization.

Holding it can lead to incontinence, kidney stones and urinary-tract infections, says Mr. Sim, who heads a global body based in Singapore calling for accessible and clean toilets, both in the developed and developing world. The problem is deadlier in the Third World, where an estimated 2.6 billion people have no access to toilets.

Sticky or stinky public toilets may seem like a luxury in comparison, but people in rich countries such as Canada shouldn't put up with them, says Mr. Sim, whose organization holds an international toilet summit every year.

"People are suffering from dirty toilets, but they are reluctant to vocalize it," the former businessman says. "They have come to expect that toilets are naturally smelly, dirty and wet."

Men have an advantage when faced with a filthy washroom, because they can more easily urinate outside. There are a number of funnel-like devices on the market that allow women to do it standing up without taking off their clothes, including one called the She Pee.

Evolution may explain the appeal of the She Pee, and why public washrooms hold a particular horror for many people.

Valerie Curtis of the London School of Hygiene and Tropical Medicine has investigated the link between disgust and good hygiene. Her theory is that disgust is a protective emotion that evolved because it helped keep humans away from bodily waste and other germ-laden material, such as corpses.

Excrement tops the list of things citizens in many cultures find revolting.

"The person who is happily dabbling their fingers in poo and happily eating it is not going to have many offspring. The gene is going to die out," she says.

Washing your hands with soap and water for roughly 30 seconds is the best way to make sure you don't get sick

from the germs in restrooms or other public places, experts say. Some recommend using a paper towel to turn off the tap and to open the door on your way out.

That's what Leslie Sharkey does. She is a public health nurse in New Brunswick, and once she has washed and dried her hands she tries to avoid any surfaces that someone else has touched.

"If the washroom has no paper towel, I do not dry my hands. I use my forearm to turn off the taps and use a sleeve or shirt tail to open the door," she says.

Both Dr. Gerba and Dr. Wolfaardt say they often wash their hands with an alcohol-based disinfectant after using public washrooms.

Dr. Wolfaardt doesn't recommend anti-bacterial soaps. A recent study found they don't work better than regular soap and water.

It is a good idea to trust your instincts when you enter a public washroom, Dr. Gerba says. His studies have found washrooms that look or smell disgusting usually are more contaminated.

"Your nose and your eyes are your best guide," he says. "If you don't like it, don't use it."

Going potty

The average person visits a toilet six to eight times a day, and spends three years of their lives in the washroom. There are plenty of disease-causing microbes in public washrooms, and experts say in North America you could pick up bugs that cause hepatitis A, Norwalk, bacterial dysentery and various kinds of diarrhea.

Door knob: A high-touch zone with lots of germs. You can use a paper towel to open it.

The floor: Try not to put a purse or bag down. It may get contaminated. Studies have found a million bacteria per square inch on the bottom of purses that have spent time on a bathroom floor.

Paper towels: These are a good way for getting microbes off your hands, after washing with soap roughly for 30 seconds and rinsing well.

Hot water tap: A hot zone for fecal bacteria, because people touch it after they wipe or flush. Experts say you can minimize your exposure by using a paper towel to turn it off.

Hot air dryers: Studies suggest they may actually propel bacteria around the room.

The drain: Bacteria can live in the drain and spray up when you wash your hands.

Sanitary napkin receptacle lid: Home to high concentrations of bacteria that may cause disease.

The urinal flush: One of the most contaminated areas of the men's room.

The toilet: Fecal bacteria shoot into the air when you flush the toilet, spraying the tank, floor, seat and toilet paper. So put the lid down if you don't want to get hit.

Cubicle door: The handle is one of the first things people touch after they finish wiping.

The middle stall: Often the most popular, since people believe that everyone else prefers the first stall. This means the middle one tends to be much germier.

Toilet paper: Unless it is in a dispenser, it may have been hit with fecal fallout from the toilet.

Toilet seats: Relatively clean, compared with other parts of the bathroom. So it is okay to sit down, say University of Arizona microbiologist Charles Gerba.

SOURCE: THE WORLD TOILET ORGANIZATION, CHARLES GERBA, PROFESSOR OF MICROBIOLOGY AT THE UNIVERSITY OF ARIZONA. (HIS RESEARCH HAS BEEN FUNDED BY COMPANIES THAT MAKE DISINFECTANTS).

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