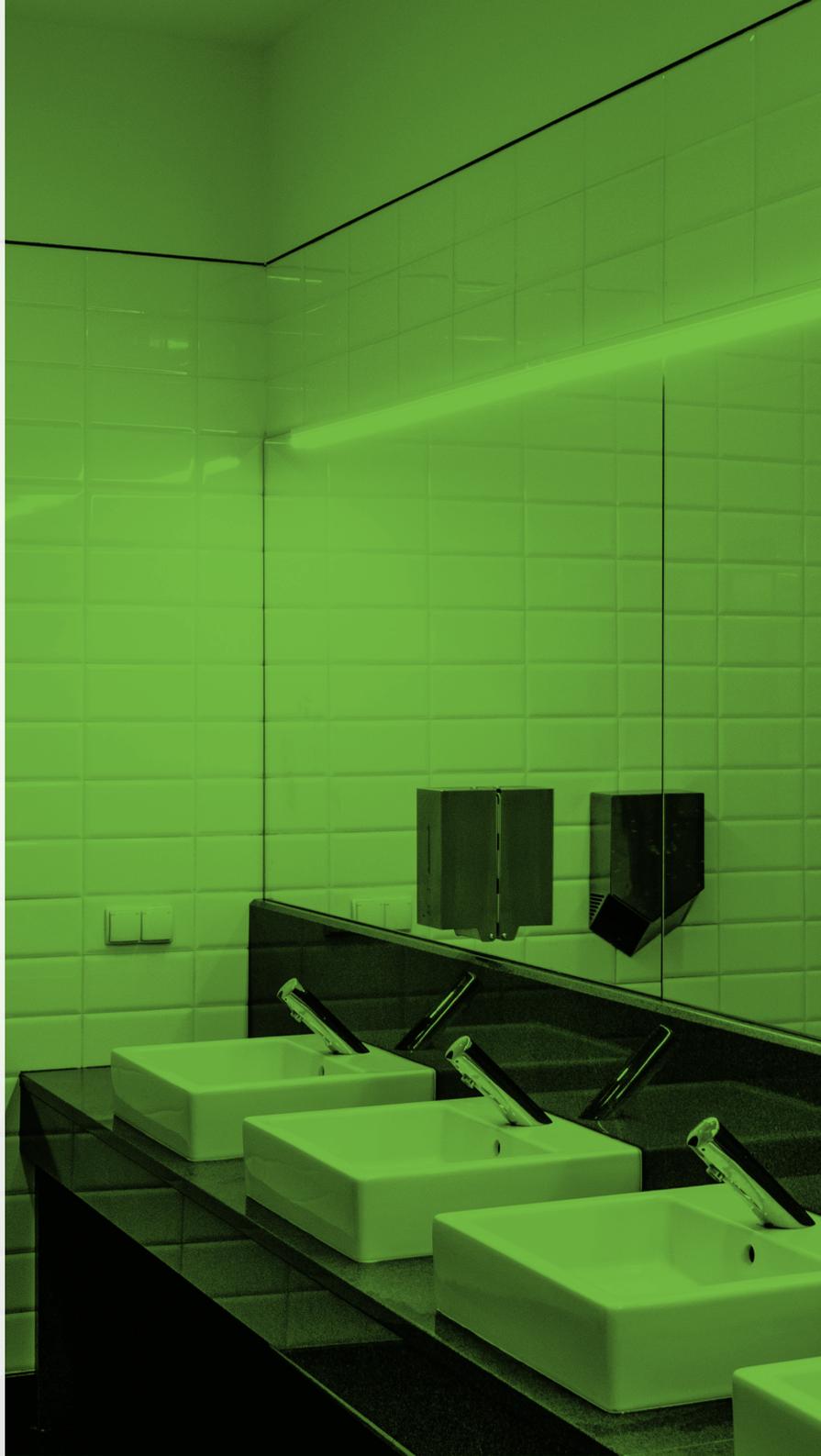




## Touch-Free Restrooms



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# Why Touch-Free?

The cleanliness of a business' restroom has a significant impact on the perceived cleanliness of the rest of the business. Inadequate hygiene strategies lead to the growth of harmful pathogens, particularly in restrooms where water droplets allow for bacteria to spread easier. However, as one of the most used spaces in a business, keeping restrooms free of harmful pathogens goes beyond just regular cleanings and extends to the type of fixtures used in restrooms<sup>1</sup>. Research supports this idea, with many studies demonstrating the transmission potential of public restrooms. Limiting transmission potential should always be a top priority, particularly during Influenza season with more than 40,000 Canadians a year getting the flu<sup>2</sup>. This is especially important in light of the recent COVID-19 pandemic rapidly spreading around the globe.

## What's Happening Inside our Restrooms



The bacterial communities inside restrooms tends to cluster into three categories; those found inside the stall, those found on routinely touched surfaces outside the stall, and those found on the floor<sup>3</sup>. These three hotspots attract clusters of

bacteria which can easily contaminate our skin upon touching them. A study by Suen et al. found that along with bacteria from skin and bodily fluids, antibiotic-resistant bacteria is also commonly found in public restrooms<sup>4</sup>. Minimizing our contact with the three hotspots, along with the regular cleaning and disinfection of the restroom, is the best way to keep your workplace healthy.

**“Touching a manual hygiene disposal bin can result in contact with potentially hazardous biological waste, COVID-19, and bloodborne pathogens including Hepatitis A and B and HIV”**

## Hotspot 1: The Stall

Flores et al. found that toilet flush handles and toilet seats were saturated in pathogens found in the human gut, suggesting those surfaces had fecal contamination<sup>5</sup>. This is because every time someone flushes the toilet a mist coats all surfaces inside the stall, contaminating all in-stall fixtures including the flush handle and the in-stall disposal bin. This mist can be comprised of harmful bacteria such as E. Coli, Hepatitis A and B, and Salmonella<sup>6</sup>, as well as fecal matter which studies show can carry and transmit COVID-19.

- In addition to the regular contamination of in-stall surfaces due to flushing, there are two other major surfaces of concern in stalls.

- The personal hygiene disposal bin has been found to be one of the dirtiest surfaces in the restroom<sup>7</sup>.

- Touching a manual hygiene disposal bin can result in contact with potentially hazardous biological waste and bloodborne pathogens including Hepatitis A and B and HIV. Touching an in-stall disposal bin without the proper protective wear leaves you at risk of not only contaminating your hands, but other surfaces outside the stall that will later be touched by others.

- The toilet flush handle is covered in bacteria due to its exposure with dirty hands, and that's without factoring in that many people would prefer to flush with their feet. Taking foot-flushers into consideration means that there is also a cross-contamination between the fecal and bloodborne pathogens typical of the in-stall community of bacteria, and the bacterial communities found on our third hotspot; the floor.

1. Flores et al. 2011, Gibbons et al. 2015, Zapka et al. 2011  
2. Infection Prevention and Control Canada 2020  
3. Flores et al. 2011: 3  
4. Suen et al. 2019: 4  
5. Flores et al. 2011: 3  
6. Germanow 2018  
7. Germanow 2018



## Hotspot 2: The Sink Fixtures

Depending on the order in which you wash your hands, the first thing you touch outside the stall is either the soap dispenser or the faucet.

- While a contaminated soap dispenser pump can be impossible to avoid when washing your hands, removing the bacteria transferred onto your hands should be easy unless you are touching a dirty faucet tap.
- The faucet is a highly contaminated spot, and a key touch point for cross-contamination. Touching a faucet after leaving the stall can transfer the human-gut bacteria onto a surface already highly populated with skin-associated bacteria.
- This is particularly concerning because the faucet handle, much like a toilet flush handle, is typically made of hard non-porous material like stainless steel, on which COVID-19 can survive for up to 72 hours. Add to that, the fecal-oral transmission potential of COVID-19 and the faucet tap becomes one of the most hazardous touch-points in the restroom.
- Switching the automatic faucets saves up to 70% more water than regular faucets.

**“COVID-19 can last on the faucet tap for up to 3 days”.**



## Hotspot 3: The Floor

- The restroom floor contains the most diverse community of bacteria, typically in low abundance. The most common communities of bacteria found on the floor were those associated with soil<sup>9</sup>.
- While it's tempting to assume the bacterial communities found on the floor aren't important, there are numerous ways that we can still come into contact with those communities.
  - Many people avoid touching the flush handle and opt for flushing with their feet, transferring the bacteria from the floor to the handle<sup>10</sup>.
  - Many people are forced to leave their bags on the floor while they use the restroom when there are no in-stall hooks available for hanging up your belongings. Leaving your belongings on the floor and then picking them up after using the restroom transfers the bacteria on your hands onto your belongings. It also transfers the bacteria on the floor to your bags, and that bacteria is in turn transferred to the sink counter or any other surface those belongings are placed.

## Why is Touch-Free so Important?

### 1. Public Health

While you may think bacterial transmission is an inevitable side-effect of using a public restroom, there are a number of ways to reduce instances of transmission. Because vaccines have not been developed for all pathogens, the best defence for preventing the spread of disease are public health and sanitation interventions like using hand soaps and sanitizers, surface disinfection and modifying behavior<sup>11</sup>.



8. <https://www.sciencedaily.com/releases/2020/03/20200320192755.htm>  
9. Flores et al. 2011, Zapka et al. 2011  
10. Flores et al. 2011: 5

- Health care providers understand the importance of hygiene interventions to reduce the spread of disease within their facilities. They found that installing touch-free technology along with adopting best hygiene practices can greatly reduce cross-contamination and reduce the number of health-care acquired infections that occur yearly<sup>12</sup>.

## 2. Employee Absenteeism and Productivity

Regular workspaces may not be exposed to the same concentration of pathogens found in healthcare facilities, but disease transmission and the spread of bacteria is intensified by employees sharing restrooms, kitchens and other office equipment<sup>13</sup>. Disease transmission can have an immense impact on workplace productivity, whether through absenteeism or presenteeism.

- Missing work due to illness can be extremely costly for a business, costing roughly \$3600 a year for hourly employees and \$2650 each for salaried workers<sup>14</sup>.
- There are a number of unseen indirect costs of employee absenteeism including poor quality work, lower productivity, and poor morale among the employees that have to fill in or make up for lost productivity by their ill co-worker.

Another common, but lesser known, reason for business owners to invest in touch-free technology to limit the spread of disease is presenteeism. Presenteeism refers to the loss of productivity “resulting from real health problems”. Essentially, employees who go to work ill<sup>15</sup>. Presenteeism affects the quantity and quality of work as the illness becomes a persistent distraction throughout the workday<sup>16</sup>.

- Presenteeism is particularly concerning during influenza season, when it can result in a 30% decrease in individual efficiency<sup>17</sup>.

- Presenteeism during Influenza season reduces productivity while simultaneously increasing the risk of disease transmission to other coworkers<sup>18</sup>.

## 3. Reputation

Having a good reputation among employees and customers is a fundamental part of maintaining a healthy and profitable business. As businesses begin to re-open after COVID-19, having a strong hygiene policy should be a top priority. People will be much more wary of public and workplace restrooms.

- Staff will pay closer attention to the disease prevention measures within the workplace.
- Customers will inquire about your company's sanitation and hygiene policies to protect themselves.

**“Presenteeism affects the quantity and quality of work as the illness becomes a persistent distraction throughout the workday”.**

A businesses' response to the COVID-19 pandemic will be crucial in forming the public's opinion on that business. Implementing a pandemic prevention strategy and creating a hygiene-centered work culture will help smoothen out the post-COVID-19 transition.

11. Kurgat et al. 2019: 480  
 12. Infection Control Today 2007  
 13. Kurgat et al. 2019: 479  
 14. Forbes Magazine 2019  
 15. Hemp 2014  
 16. Hemp 2014  
 17. Kurgat et al. 2019: 480  
 18. Kurgat et al. 2019: 480

## Be a Part of the Solution

Returning to regular business operations following the COVID-19 pandemic will prove challenging as staff and customers are wary of disease resurgence. Partnering with a trusted service company that supplies a touch-free restroom, uses proper disinfecting chemicals, and has a proven track record of creating safe and hygienic spaces is the best solution.

A touch-free restroom can help businesses:

1. Prevent the spread of infectious disease.
2. Keep harmful bacteria away from staff and customers.
3. Give staff and customers peace of mind following the COVID-19 pandemic.
4. Reduce Absenteeism and Presenteeism.
5. Work towards meeting public health objectives of reducing the communal spread of infectious disease through behavioral modification and strong internal sanitation and hygiene policies.

A touch-free restroom demonstrates a business's commitment to the well-being of their employees and customers by showing them that their peace of mind is a top priority.

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