

Infectious Design

Modern office layouts will intensify the spread of infections, unless cleaning executives step in

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Introduction

Infection control typically isn't considered a priority or a concern for commercial office buildings. Based on *Contracting Profits*' "2019 Report on the Building Service Contractor Market," the majority say a clean appearance is most important to Facility executives. And they're absolutely correct.

Even though a *Contracting Profits* survey shows that two-thirds of facility executives rank a healthy environment for building occupants as their most important cleaning priority, supplemental data doesn't back this up. In this same survey, only 3 percent of facility executives say cleaning commonly touched objects is the most important cleaning task. Instead, they emphasize clean restrooms and lobbies — tasks that contribute to making a great first impression.

However, viruses spread when someone touches a contaminated surface and then touches his or her

mouth, nose or eyes. In an office setting, the most contaminated objects are elevator buttons, breakroom sink faucet handles, microwave door handles, water fountain buttons, vending machine buttons and computer mice. A *Contracting Profits* frequency survey found that only half of cleaning professionals clean high-touch surfaces like these on a daily basis. This makes sense because only half of facility executives who were asked the same question request daily cleaning of high-touch surfaces.

Since these surfaces aren't being disinfected daily — or, better yet, multiple times a day — viruses are allowed to run rampant in commercial offices. This problem is only going to get worse in the future because new trends in office layouts will exacerbate the problem.



Changing Office Spaces

The days of the traditional office layout with cubicles in the middle of the room and private offices on the perimeter are over.

Nearly half of global office workers want a workspace designed to enable and encourage social interaction, according to industry research. As a result, 75 percent of companies use at least seven types of collaborative spaces in their layouts, says the “*Creating Collaborative Spaces That Work Report*,” from [Knoll Inc.](#) Common types of spaces include different sized conference rooms, video conference rooms and cafes. Some buildings even include fitness centers, outdoor meeting spaces and game rooms.

In addition to these flexible office space layouts with a variety of workstations, buildings are also increasing densification of workspace. Currently, the average personal space per worker is 151 square feet, which is down from 176 square feet per person in 2013. The figure has substantially decreased from just nine years ago when each person had 225 square feet. Individual workspace is expected to decrease even further, down to 100 square feet, as it currently is in Europe, according to [CoreNet Global](#).

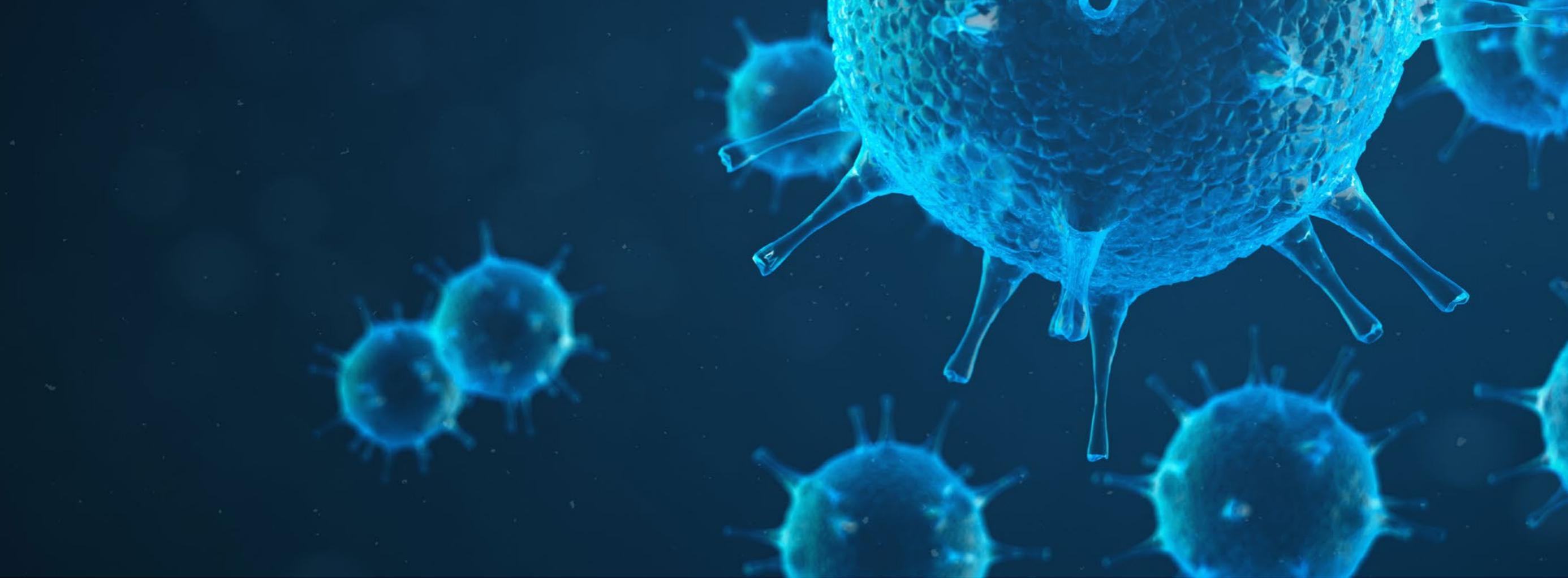
Densification is attractive because it reduces costs, especially in Class-A offices which have the highest lease rates. If more workers can fit in a given area, facility executives can save money by leasing less space.





Although occupants will appreciate the ability to collaborate and facility executives can save money on leases, there is a downside to these new layouts. These two trends will put office workers in closer proximity to each other, increasing the potential for cross-contamination. Workers in shared office spaces have, on average, two more episodes of the common cold than workers in private offices, according to a study titled, *“Impact Of A Comprehensive Workplace Hand Hygiene Program On Employer Health Care Insurance Claims And Costs, Absenteeism, And Employee Perceptions And Practices.”*

In addition, in a high-density office, more workers in the space will likely increase restroom traffic. If facilities get too busy at the same time, workers may skip washing hands instead of waiting. The increased traffic will also put a strain on soap and towel supplies. If stock runs out, workers definitely won't be washing their hands.



Infection Control Helps Fight Cost of Employee Sickiness

Infections in office buildings are expensive problems. Absent employees, and employees who report to work sick (called presenteeism), cost the U.S. economy \$227 billion each year because of lost productivity, according to the [Integrated Benefits Institute](#). The common cold alone accounts for \$20 billion of this figure.

Cleaning professionals can help break that number down specifically to individual facilities. Dr. Charles Gerba, a microbiologist at the [University of Arizona](#), estimates that each time a person has a cold, he or she costs the employer \$280. When you consider how many occupants get a cold, and how often, these numbers add up quickly. Since cleaning professionals play a direct role in infection prevention, they could actually be saving the facility substantial dollar amounts each year.



This example only represents the common cold. Custodial professionals can also play a role in preventing influenza, Norovirus and much more. In fact, 35 percent of C. diff cases are now considered community-acquired infections, meaning they occur outside of healthcare facilities.

Proper cleaning and disinfecting reduce the spread of viruses by 80 to 90 percent. Train staff to focus on commonly touched areas and disinfect them daily. Cleaning executives can also provide disinfectant wipes so occupants can disinfect their personal spaces and items, especially if these areas are prohibited from cleaning.

Since restrooms may be taxed, it's important to also supply hand sanitizer. Setting up stations in common areas, such as lobbies and breakrooms, as well as frequently used collaborative spaces, will encourage use, especially by employees too busy to visit the restrooms to wash hands when needed.

When viruses are left unchecked, they spread rapidly. Dr. Gerba conducted a study by placing a bacterial virus on a lobby door push plate in an office building with 80 people. Four hours later, the virus was found on half of the workers' hands and on 56 percent of the building surfaces.

However, when Dr. Gerba provided hand sanitizer and disinfectant wipes to half of the building occupants, the virus was only found on 10 percent of workers' hands and 9 percent of surfaces after just four hours of intervention.

Dr. Gerba isn't alone in his findings. A study conducted in the offices of [Medical Mutual of Ohio](#) gave a group of employees hand sanitizer for regular use — after

sneezing and coughing, after contact with others who may be sick, before eating, and after using the restroom. After introducing hand sanitizers, absences dropped by nearly 15 percent. In addition, healthcare claims related to hand-hygiene preventable illnesses were lowered by almost 25 percent, saving the employer significant expenses.

An added benefit of providing hand sanitizer is improved perception. In the aforementioned study, after giving hand sanitizer to occupants, there was a significant increase in employee perception that their company was concerned about the spread of illness in the workplace. And workers are truly concerned — more than half of office workers worry about getting infected from colleagues who come to work sick, according to industry research.

Besides improving perception, hand sanitizer also boosted occupant morale. Just over 80 percent of Medical Mutual of Ohio employees listed having hand sanitizer at their desks as one of the top two amenities in the workplace, after participating in the study.



Just by offering a product, cleaning professionals can help improve building occupant's morale and the overall impression of the employer.

As more facilities move to flexible and high-density layouts, Cleaning professionals need to focus on a robust infection prevention cleaning program. Otherwise, facility executives can expect to see a decline in productivity and an increase in expenses.

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