

healthy living



# Why creating a clean workplace is vital for your health

**How hygienic is your office?** Here at *The National* we decided to see just how commonplace bacteria can be in a daily working environment by carrying out a series of swab tests, **Jennifer Bell reports**

ABU DHABI // Potentially harmful germs found breeding in a typical workplace reflect the need for better hygiene practices, say experts.

A swabbing test exercise by *The National* newspaper found a “heavy growth” of the potentially deadly *E. coli* bug and other dangerous bacteria on common work surfaces in the newsroom.

“Such bacteria can be the cause of diarrhoea, gastroenteritis and meningitis, which can be spread via close contact such as hand shaking, and sharing office equipment including laptops, stationary, phones, et cetera,” said Dr Ola Mira, a member of the Arab Hygiene Council and head of occupational health and safety at the Ministry of Health.

Using about 20 individual swabs supplied and tested by Abu Dhabi’s Burjeel Hospital, *The National* swabbed various surfaces in our Mohammed bin Khalifa Street offices, including door handles, kitchen surfaces and keyboards.

The exercise aimed to serve as a test on how unhygienic workplaces could be.

The Arab Hygiene Council said the findings were alarming.

A “heavy growth” of *E. coli*, indicating possible faecal matter and more dangerous pathogens, was found on door handles in both the women’s and men’s washrooms.

The men’s washroom also had a heavy growth of *Pseudomonas spp*, which could cause severe gastrointestinal upsets and infections.

Commonly touched work surfaces including the photocopying machine, keyboards belonging to two senior members of staff, and a mouse were also randomly tested and found to have a heavy growth of *E. coli*.

The bacteria *Staphylococcus aureus*, which could lead to skin infections such as impetigo, cause food poisoning and illnesses such as pneumonia, was also found on a sample chair in the newsroom.

A tea tray used to serve beverages to staff also had a heavy growth of *E. coli*.

“Commonly touched surfaces at the workplace, including door handles in kitchens and bathrooms, can easily harbour significant amounts of bacteria such as *E. coli*, *Pseudomonas spp* and *Staphylococcus*,” said Dr Mira.

The results show office staff in



**Printer button**  
Photocopying machines are hotspots for germs, being one of the most commonly touched surfaces in an office. Heavy growth of *E. coli* found.



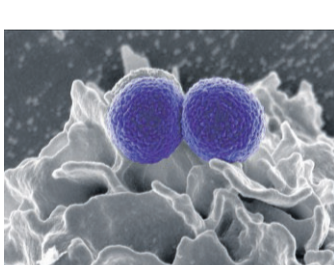
**Editor’s keyboard**  
Keyboards can contain 200 times more bacteria than a toilet brush, experts estimate. Heavy growth of *E. coli* also found here.



**Tea boy’s tray and kitchenette sink**  
Heavy growth of *E. coli* found. Hygiene experts say such bacteria has no place in an environment where food or drink is prepared.



**E. coli**  
Most strains of *E. coli* – *Escherichia coli* – are harmless; others can cause diarrhoea, urinary tract infections, respiratory illness, pneumonia and other illnesses. The bacteria live in the intestines of healthy people and animals, and you may also be exposed to *E. coli* through contaminated water or food.



**Staphylococcus**  
*Staphylococcus aureus*, a type of bacteria commonly found on the skin and hair, can cause vomiting, diarrhoea, loss of appetite, abdominal cramps, mild fever and skin infections.



**Pseudomonas**  
*Pseudomonas*, found in the newsroom washrooms, can cause severe gastrointestinal upsets and infections.



**Photo desk keyboard and mouse**  
Heavy growth of *E. coli* found. Keyboards and computer mice are among the dirtiest objects in an office, and should be disinfected regularly.



**Reporter’s chair**  
Heavy growth of *Staphylococcus aureus* found. Shared office equipment, such as chairs, are more likely to harbour bacteria.

The National newsroom after a laboratory team tested samples for potentially-harmful bacteria and infection control. Half of the surfaces swabbed were found to have growths of *E. coli* and *Staphylococcus* bacteria. Silvia Razgova / The National

## Bacteria

# Germs lurk in many homes

*E. coli* found in a third of kitchens and a fifth of bathrooms

ABU DHABI // Germs found lurking in *The National’s* offices are probably found in many other workplaces and homes.

According to the Dettol Hygiene Home Truths Study, conducted last year in partnership with the Arab Hygiene Council, the two most common bacteria found in kitchens and bathrooms were *E. coli* and *Staphylococcus*.

The study found *E. coli* in 32.9 per cent of kitchens and 19.6 per cent of bathrooms in the UAE. *Staphylococcus* bacteria was present in 17.6 per cent of kitchens and 15.3 per cent of bathrooms.

“It is a common finding in any office,” said Dr Sundar Elayaperumal, a microbiology specialist at Burjeel Hospital in Abu Dhabi.

“Usually the common bacteria is from the skin. The skin has a lot of bacteria, such as *Staphylococcus*.”

“Other bacteria such as *E. coli* comes from the toilets or bathrooms, and when hygiene is not perfect it can be carried to door handles and taps. Other people using them then get the colonisation of the bacteria and carry it to their workplaces, such as their computers, keyboards and telephones, and so on.”

Hand hygiene is the most important tool in the fight against bacteria, he said.

“The best thing is using an alcohol-based hand sanitiser. And wash your hands frequently. Hand hygiene is very, very important in transmitting infection. Wash your hands regularly, especially when going to the toilet, and use a paper towel to dry them afterwards. Use a tissue to open the door knob. Cough etiquette is also very important.”

Dougie Collin said: “In areas where strict control of bacteria is a requirement, it should not be present in any significant amount. This includes kitchens, but not toilet areas, where it is hard to control bacteria due to the reliance on humans to adopt good hygiene practices.”

Bacteria such as *E. coli*, *Staphylococcus aureus* and *Pseudomonas* were not normally found in heavy concentrations, said Mr Collin.

“The main concern is kitchen areas, due to the clear risk of introduction into the food chain or even directly through contact. It is an indication of poor hygiene practices, and illness can result, although it would not be expected to be fatal.”

“Good hygiene practices, especially after visiting restrooms, is crucial in the control of intestine-borne bacteria such as *E. coli*.”

Dr Mansour Al Zarouni, a medical and molecular microbiologist, and the director of FMI Diagnostics in Sharjah, said: “Every one of us carries *E. coli* in our gut. Our skin carries *Staphylococcus* and water may have *Pseudomonas* or *Proteus* spores bacteria.”

“It is not surprising that our activities would contaminate the environment and would need to be cleaned frequently.”

## Education // Hygiene

# Good hygiene is all our responsibility

**Employers must give their workers hygiene knowledge**

ABU DHABI // Employers need to arm their employees with the knowledge and tools necessary to reduce the spread of bacteria and maintain a healthy office environment.

*The National’s* swabbing exercise indicated a need for increased education of the health consequences of being unhygienic in the workplace, said Dr Ola Mira.

“Increasing the awareness among workers is a key element to keeping the workplace clean and preventing the spread of infections,” she said.

“We know that good hygiene, including hand washing and disinfection of commonly touched surfaces, can help to prevent the spread of bacteria and viruses.

“Practising good hygiene is everyone’s responsibility, and something we can do easily for ourselves.”

Maintaining good hygiene levels on a personal level and at the workplace is the first line of de-

fence against the spread of bacteria and infections, said Dr Mira.

“Regular hand washing with a trusted antibacterial soap, such as Dettol, is one of the key simple hygiene practices that help in preventing the spread of infections and staying healthy.

“In addition, these commonly touched surfaces need to be regularly cleaned and disinfected to kill the bacteria, and to keep a healthy environment at the workplace.”

There are simple practices workers can adopt to reduce the spread of infectious diseases, she said.

This includes washing your hands for a minimum of 40 seconds, as per World Health Organisation guidelines, at least six times a day using a liquid hand wash.

People should also use trusted hand sanitisers or antibacterial personal wipes when washing facilities are not available.

While in the office, workers should make sure to clean and disinfect surfaces, especially keyboards, phones, desks and restrooms, which contain a significant amount of bacteria.

“You can use surface wipes, antiseptic liquid and multipurpose cleaner to keep these surfaces

clean and germ-free,” said Dr Mira. If unwell, workers should also practice “hygiene etiquette.”

“Cover your mouth and nose with a tissue when coughing or sneezing,” she said.

“If you don’t have a tissue, cough or sneeze into your upper sleeve, not your hands. Put your used tissue in a wastebasket.”

Better yet, workers should stay at home when sick to prevent others from catching the illness.

Staff should also stick to using their own crockery rather than sharing coffee cups, for example.

“Germs can easily be transferred from one person to another. Avoid sharing eating and drinking utensils with colleagues,” said Dr Mira.

Dr Zohreh Safai recommends that cleaning staff “deep clean” an office at least once a month – ideally once every two weeks.

However, cleanliness and making sure surfaces are not re-contaminated was a responsibility of employers and employees. Dr Safai said there were simple practices every workplace could adopt, including providing employees with access to hand sanitisers and antibacterial disinfectant sprays, as well as education in hand and surface hygiene.

“It is a team effort to make the workplace as clean as possible,” she said.

“It is pretty much common sense not to leave food lying around.

“Also, if you blow your nose, discard the handkerchief rather than leave it on a surface you might place your hands or foot on.”

Dougie Collin said workplaces should review of how hazard control points are identified. Hand sanitiser units should also be in place where food is consumed, by stairwells and at workstations.

## Health // Infection

# Unclean workplaces affect productivity

ABU DHABI // Dirty workplaces result in sick employees and lost productivity, warn health experts.

Unhygienic working conditions are a key contributor to working days lost to sickness each year, said Dr Zohreh Safai.

“Anytime any infection – especially one that is easily spread – affects a workplace and people who are infected have to take time off, then there is lost productivity,” she said.

“It is a combination that affects productivity, but also the well-being of the employees.”

Better hygiene measures could result in fewer sick days and improve the health of the office as a whole, said Dr Safai.

She urged people to take the time to thoroughly clean workstations, desks, telephones, keyboards and computer mice.

Infections are caused by bugs such as bacteria getting into or on to the body.

It can take some time before the microbes multiply enough to trigger symptoms of an illness, which means an infected person may unwittingly

## Hotspots // Work stations

# Desks are the most germ-infested spots in an office

**Keyboards can be 200 times dirtier than toilet brushes**

ABU DHABI // What do you think is the most germ-infested hot spot in your office?

If you answered “the bathroom”, think again. Illness-causing bacteria are more likely to linger on commonly used work surfaces such as keyboards, computer mice or office phones, and the average desk is a prime breeding ground for infection, say health and safety experts.

In fact, an average keyboard can have 200 times more bacteria than a toilet brush, according to Dr Sundar Elayaperumal, a specialist in microbiology at Burjeel Hospital in Abu Dhabi.

“This is because we are using them so very often, especially in some offices where keyboards are shared by different people,” he said. “Bacteria is coming and

is deposited, and there is not enough proper cleaning of the keyboard.”

The study *How Many Bacteria Live on the Keyboard of Your Computer?*, published in the *American Journal of Infection Control* in 2011, said because many workers ate at their desks, their keyboards can be breeding grounds for bacteria. Workers with poor hand hygiene also directly contaminated their keyboards, while droplets of saliva that fall on a keyboard during talking, sneez-

ing or coughing also increased the risk of infection.

The authors analysed swabs from 30 keyboards and found microbes of bacteria on each, such as *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Micrococcus* and *Enterococcus*.

Past studies have found more than 3,000 organisms per square inch on a keyboard, and 1,600 on a computer mouse.

Dr Elayaperumal said: “Cleaning your keyboard is different to disinfecting your keyboard.

Cleaning takes the dust away, but disinfecting it means you are removing the bacteria that has colonised the keyboard. But it will come back – it is a persistent phenomenon.”

He recommended using disinfectant wipes in the morning and at the end of the day. Eating at desks should also be prohibited he said, because crumbs can become lodged in between keys and encourage bacteria to breed.

ue of hand sanitising. Educating workers on the spread of bacteria by hand to hand, or through sharing tools and equipment, was key.

“Showing people how contaminated they could be by using UV light systems that can be made to show how poorly some people clean their hands is another way.”

Dr Collin said computer equipment and chairs should also be cleaned regularly – usually once a week – but that this should be increased in cases where several users shared a work station.

He said hand driers were more hygienic than towels because there was no contact with dispensers, but it was most important for people to realise the val-