## Keyboards - a bacteria biotope



Regardless of whether you are at home or at work, keyboards are some of the most commonly used input devices alongside smartphones and it is no longer possible to imagine daily life without them.

However, alongside their usefulness, keyboards also have a "dark side". They are viewed as breeding grounds for bacteria, viruses and germs. According to studies, more germs are moving around on keyboards than on toilet seats. This fact represents a risk that should not be underestimated, particularly in hygiene-sensitive areas.

#### How does pollution reach a keyboard?

The simplest way is via the dust particles that are found in the air; they then settle on the keyboard and in its gaps.

Another reason for a dirty keyboard is when people eat at their workplace. Crumbs fall on and into the gaps on the input devices or the keys are activated by dirty fingers. The most disgusting and unfortunately frequent circumstance that explains how germs can reach a keyboard is when people **FAIL to wash their hands after going to the toilet.** 

There are normally higher levels of pathogens in settings like hospitals, nursing homes, doctors' practices and pharmacies. This situation is negatively encouraged by too many sick people meeting in a small area and the nursing personnel, who have close contact with the patients. Complying with hygiene standards is therefore extremely important at these places. Unfortunately, the reality on the ground does not match the theory because of austerity measures with regard to human resources and the increasing time pressure that ensues as a result. This means that nursing personnel often transmit germs from inadequately disinfected items to patients.

#### The invisible danger!

Turn your keyboard over and give it a good shake. You will then see the remains of meals that have been eaten here and coffee breaks. Scientists and researchers, on the other hand, have gone even further than this and conducted some smear tests on keyboards. In countless studies and experiments, they not only found the obvious and less dangerous dust and dirt particles, but also so-called **pseudomonas or pyogenic/fecal bacteria on the keyboards**.

Pseudomonas bacteria, which are also known as hospital germs, occur in water, on the ground or on animals. What is dangerous about these germs is that they are resistant to antibiotics and are therefore very hard to combat. Fecal bacteria, better known as coli bacteria, normally occur in the intestines of human beings or animals. A lack of hygiene frequently makes it easier for these bacteria to come in contact with human beings. Serious infections are often the result.

Any unwanted contact with staphylococcus or pyogenic bacteria is also a result of inadequate hygiene. This normally leads to sickness and diarrhea.

### What are the consequences for users?

Generally speaking, healthy people do not have anything to fear from unhygienic keyboards, apart from the unsavory aspect. However, using them can act as a germ carrier or germ transmitter and this is very dangerous, particularly in the health sector. Because the elderly and/or people suffering from various illnesses may react with diarrhea, food poisoning, skin infections, fungal diseases or even worse, depending on which kinds of germs are involved.

Depending on how serious the patient's existing condition is, an infection that is caused by multi-resistant germs can cause death in the worst-case scenario. **Each year in the U.S., at least 2.8 million people are infected with antibiotic-resistant bacteria or fungi, and more than 35,000 people die as a result** (https://www. cdc.gov/drugresistance/about.html).

### Maintaining hygiene standards saves money!

Hygiene is not expensive. However, patients suffering from infections caused by a lack of hygiene are. These patients often have to be treated in hospital for longer than planned. This is compounded by expensive therapeutic measures to heal the infected person. If this does not work and the patient succumbs to the infection, the facility causing the problem may have to face legal consequences.

# The solution!

The first way of remedying dirty keyboards is to clean them. You will find instructions on how to do this here https://tinyurl.com/t7l6jpj. However, it is often not easy to clean keyboards; **it takes a long time and is not always 100% successful either. For this reason, many professions operating in the health sector are making use of hygienic keyboards.** They are usually made of silicone or glass and have an enclosed surface, which makes it very hard for dirt to penetrate or attach itself to them. The high-quality materials are also resistant to cleaning and disinfectant agents and can be easily cleaned with just one wipe. Some models can even be cleaned under running water. **Find out more about hygienic keyboards here:** https://tinyurl.com/vtg7sa5

The Center of Disease Control and Prevention (CDC) also recommends that people use special hygienic keyboards. https://tinyurl.com/wojbptz