Professional Cleaning

Basic Hygiene for cleaners

Serviceerhvervene UddannelsesSekretariat

Develoed by:

Ulla Petersen, TEC

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Revised by:

Mary Geraldine Kristensen, TEC

Elena Bjerre Nielsen, TEC

Maria Veha, TEC

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Serviceerhvervenes Efteruddannelsesudvalg Vesterbrogade 6D, 4. 1620 København V. Tlf. 32 54 50 55 www.sus-udd.dk



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Hygiene

What comes to mind when you hear the word hygiene? Do you think of Cleaning or cleanliness? The word hygiene originates from the Greek language - where the goddess Hygeia is commonly known as the goddess for cleanliness and health.

Microorganisms

Microorganisms are extremely small living beings (1/1000mm). They are only visible through a microscope. Microorganisms live everywhere: On humans, animals, in the air, on soil, in dust and on food.

Microorganisms are divided into three categories:

- Bacteria
- Fungi
- Virus (when in this category: it is described as vira and not virus)

Most microorganisms are harmless (apatogene) and do not interfere with us:

- Microorganisms are found on our skin as protection agenst illness
- Microorganisms in our stomach help us to digest our food
- Microorganisms are commeonly used in food production, e.g. bread, cheese, beer and wines

Patogene microorganisms on the other hand are harmfull for us. They can envade our bodies, and depending in part on the strength of ones immune system, they have the ability to weaken us or make us sick.

Bacteria

Bacteria is divided into the following groups:

- Coccus: Round bacteria can infect a wound, cause sore throat, food poisning, meningites etc.
- Rods: Rod shaped bacteria can cause Tuberculosis, urinary tract infections, food poisoning, Tetanus etc.
- Spirillums: Twisted or bent bacteria can cause cholera and food poisoning.

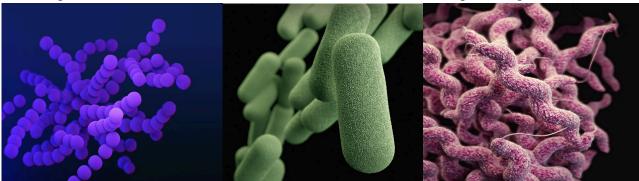


Photo by: CDC on Unsplash



Bacteria multiply via cell division:

When bacteria find a location where all of its living requirements are available, it doubles in size every 20 minutes. For example a bacterium at 12 o'clock will have multiplied to 4096 within four hours.

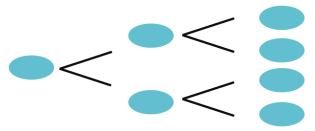


Illustration by Maria Veha, TEC

What are their living requirements?

- Nourishment (food)
- Humidity
- Darkness
- Temperature, ideally 20-40 °C
- Oxygen
- A pH neutral environment, pH 7



Photo by CDC on Unsplash

Fungi

There are two groups of fungi:

- Mold
- Yeast



Photo 1 by Jon Moore on Unsplash. Photo 2 by Nancy Hughes on Unsplash. Photo 3 by Geoffroy Delobel on Unsplash



You can sometimes find mold on bread or jam. Mold can also cause ringworm or skin infection. Furthermore, it can spread in houses and cause allergic reactions.

Yeast can also cause thrush or vaginal yeast infection.

Virus

Virus on the other hand require a host. It will take over a living cell and develop from there Illnesses that can occur as a result of a virus infection include flu, German measles, chicken pox, hepatitis, HIV and Norovirus.

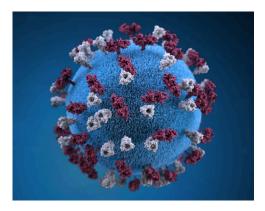


Photo of a virus by CDC on Unsplash

How do contagious diseases infect us

Microscopic germs, such as bacteria or virus enter our bodies causing infectious illnesses. Contagious illnesses are infections that are highly contagious and spread from person to person through direct and indirect contact.

The microorganisms in question are transmitted from one person to another person through:

- **Direct contact:** When you are in physical contact with another person through kissing, sex or through infected blood.
- Indirect contact: Many microorganisms linger on an object, such as a tabletop, a doorknob, or a faucet handle. When you touch a doorknob handled by someone carrying a flu or a cold virus for example, you may pick up the germs left behind. Shaking hands with an infected person is also defined as indirect means of contact and may present a risk of contamination.



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A person can also be contaminated through:

• The air: When an infected person sneezes or coughs, microorganisms can travel through the air and contaminate another person. Microorganisms are often concealed in dust, which when swirled up can cause infection.



Photo by Towfiqu Barbhuiya on Unsplash

• Animal or insect bites (disease carriers): Bats and foxes may be vectors of rabies, mosquitos may be vectors of malaria parasite or West Nile virus, and deer ticks be vectors of the bacteria causing Lyme disease.



Photo by Angela Handfest on Unsplash

• Food contamination: Illness-causing microorganisms can infect you through contaminated food and water. This mechanism of transmission allows germs to infect many people through a single source. Ex. E. coli bacteria are present in or on certain foods – such as an undercooked chicken, fish or unpasteurized fruit juice.



Photo by Eiliv Aceron on Unsplash



Blood and body fluids: Certain diseases are transmitted directly to the bloodstream, e.g.
hepatitis by sharing contaminated needles, or HIV through blood products, which should be
screened.



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Cleaning Hygiene

It is very important that the cleaning work is of a high standard. Cleaning personnel help to prevent illness and disease by maintaining and observing proper hygiene standards. It is vital that cleaning personnel are aware of the importance of maintaining an acceptable hygiene standard for their cleaning equipment, such as cleaning trollys, buckets, cloths, machinery etc. Smooth surfaces are easier to maintain than rough ones. A hygienic workflow breaks transmission of infection by separating clean and dirty work processes. For example, not using the same cloths or water in toilet areas as in kitchens.

Personal hygiene

The cleaner should maintain proper personal hygiene standards. Otherwise, he/she can risk transferring infection from one surface or area to another.



Photo by Yogendra Singh on Unsplash

Suitable personal hygiene should include a daily bath. Washing of hands before meals, after using the toilet, or when completing a dirty work process. While at work, it is important to avoid carrying dirt on clothing. A change of clothing is necessary on a daily basis. Jewelry, such as rings, bracelets, or watches can conceal microorganisms. Nails shold be kept short and clean, so as to avoid concealment of microorganisms.



Gloves

It is very important to wear gloves when working in the cleaning industry, both to ensure proper hygiene and to protect the skin from cleaning products and microorganisms. Our hands can have cracks and fissures that can conceal microorganisms.

When working with water and detergent, the skin becomes soft by the water and damaged by chemicals. Exposure to water and detergent causes various skin problems. In short term, our hands get dry and cracked, and in the long term, you risk developing an allergy to various substances.



Photo by <u>Branimir Balogović</u> on <u>Unsplash</u>

Cleaning gloves are made from rubber or synthetic materials. Some cleaners use a cotton glove under the waterproof gloves. The cotton absorbs the sweat from the skin and therefore avoid skin irritation.

It is important to wash rubber gloves after use. Following the completion of a cleaning task the hands should be washed with a mild soap, followed by applying a good moistening cream.



Cleaning Methods

Different rooms require different levels of hygiene. When cleaning, it is important to maintain the required hygiene standard for the area.

The general hygienic principles are:

- Working from top to bottom
- Working from clean to unclean in all areas

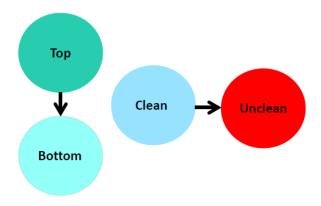


Illustration by Maria Veha, TEC

Using colour coding for cleaning equipment and cloths:

- Red buckets and cloths for unclean areas, e.g. toilets
- Blue buckets and cloths for kitchen areas
- Green buckets and cloths for furniture and sterile areas
- Yellow buckets and cloths for infectious rooms and infection areas

By using different colour coding for cloths, buckets and cleaning utentials, it becomes easier to differentiate between the different cleaning processes, thereby avoiding transmitting microorganisms from one area to another.



Illustration by SUS



Disinfection

In some situations, regular cleaning is not enough to achieve the level of hygiene required. In which case, it is necessary to both clean and disinfect.

When using a disinfectant, the process will inhibit or kill most microorganisms. Disinfectants are used in the following areas:

- In food industry
- In hospitals, nursing homes, and daycare facilities
- In pharmaceutical industry

Disinfection is a special kind of cleaning. It can never replace regular cleaning. Disinfectants such as alcohol and bleach, do not have cleaning ability, they can only eliminate microorganisms.

Chemicals that both clean and disinfect one operation are available. However, the most effective way to clean is to use two processes.

The correct way to disinfect is:

- 1. Clean
- 2. Disinfect



Photo by Towfiqu Barbhuiya on Unsplash

Sterilization is another effective means of special cleaning. It kills all microorganisms, including spores in one process. Sterilization is effective for cleaning surgical- or dental equipment in hospitals and clinics. Sterilization comprises of, either by using steam or by dry heat.

Autoclaving using steam (120 $^{\circ}$ - 135 $^{\circ}$ C for 20 min). This is the most common form of sterilization.

Dry heat (160° C for approx. 2 hours) in an oven, only for metal and glass.