

Care with heart and safety



Tips for a healthy working environment in
times of Corona and protective measures



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SARS-CoV-2: New challenges in nursing, residential and care homes

Residents of retirement, residential and nursing homes suffer from contact restrictions and visiting restrictions. Communication through the protective masks is limited and often seems alienating for the senior citizens.

People with dementia often do not understand the background of the situation. Facial expressions and acoustics are clearly limited or not recognizable at all. This creates insecurity and fear.

Relatives worry about seniors and often feel helpless. Phone calls and letters can hardly replace the weekly visit. Visits behind glass windows lack physical closeness and the usual communication.



Nursing staff and therapists address the worries and anxieties of residents and relatives in addition to their everyday work. Under protective measures and isolation conditions, the latter is particularly physically and mentally stressful: working for hours with masks, for infected persons additionally with protective clothing and frequent admission and discharge.

Also managing directors, nursing services and hygiene officers are in a state of emergency. Hygiene guidelines have to be adapted almost daily and the purchase of masks, protective clothing and disinfectants has to be organised anew. Staff shortages, high sickness rates and bed closures require creativity and stamina.

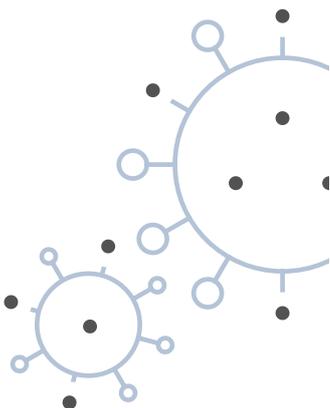


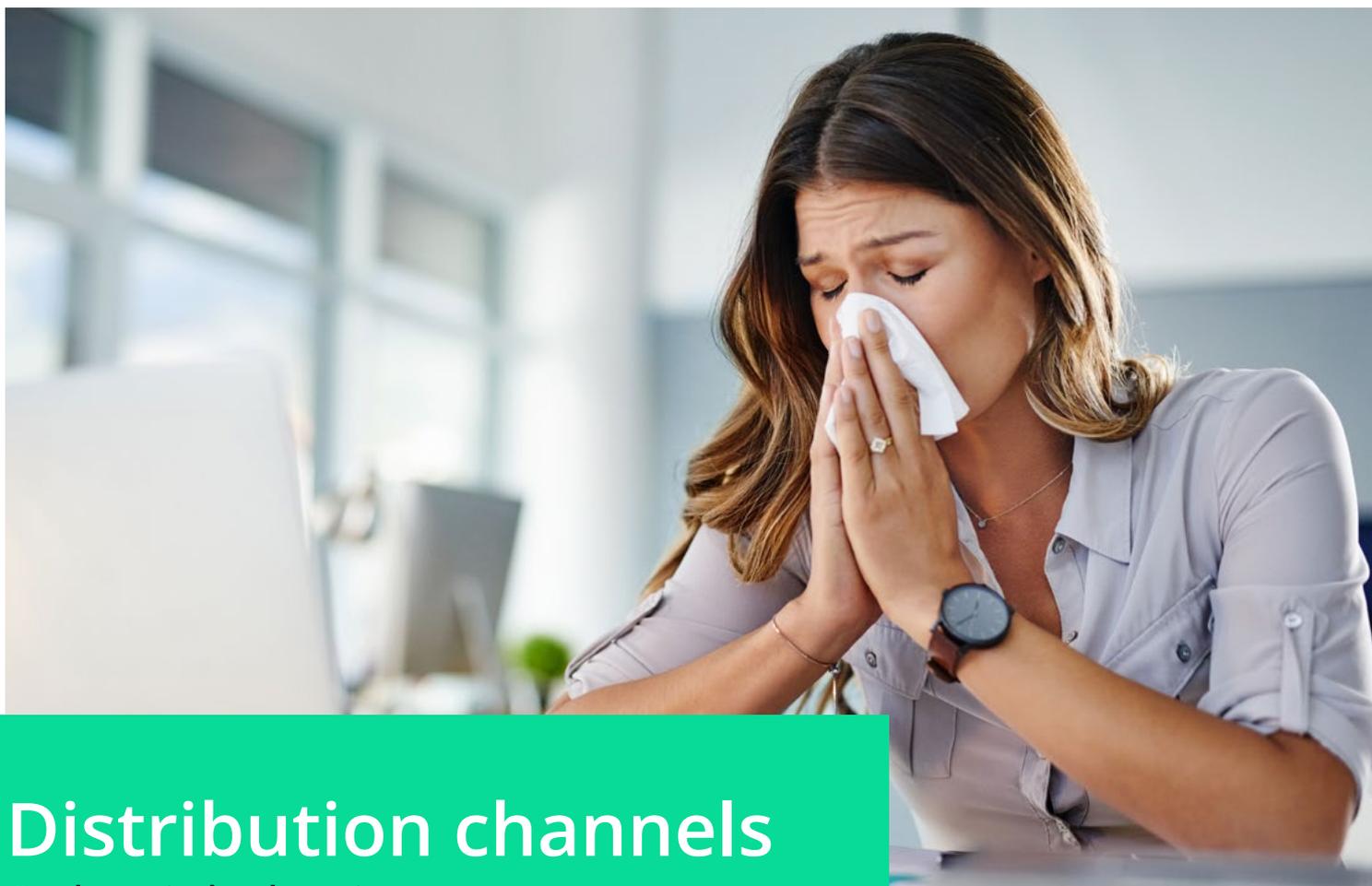
SARS-CoV-2

A new virus, COVID-19 –
a new disease

SARS-CoV-2 is a novel corona virus that causes the disease COVID-19. „Novel“ because it is first reported in humans or the human immune system at the end of 2019. Since then it has spread worldwide and has become a pandemic. „Novel“ because it is not yet completely clear when it causes which symptoms and how, in short: what it causes in the human body. The virus takes different routes to spread further. Often infected people are contagious for days before they even realize they are ill. Some infected people only report a slight cold, others become seriously ill and have to be admitted to hospital. And then there are those who

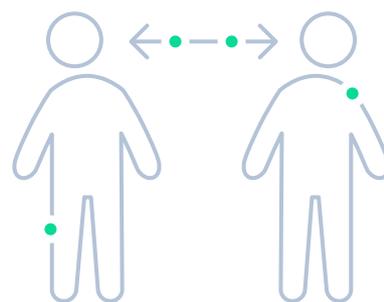
have no symptoms at all, while others die despite being ventilated. Initially, it was suspected that COVID-19 was a pure lung disease, but it is now known that it can attack all organs, nerves and blood vessels. Risk factors such as age and pre-existing conditions can be statistically represented, but actual correlations are only slowly emerging. This is because scientists and treating physicians around the world have to learn about and understand this novel virus only gradually through research and experience. This is why it happens that new findings are constantly becoming available at short intervals.



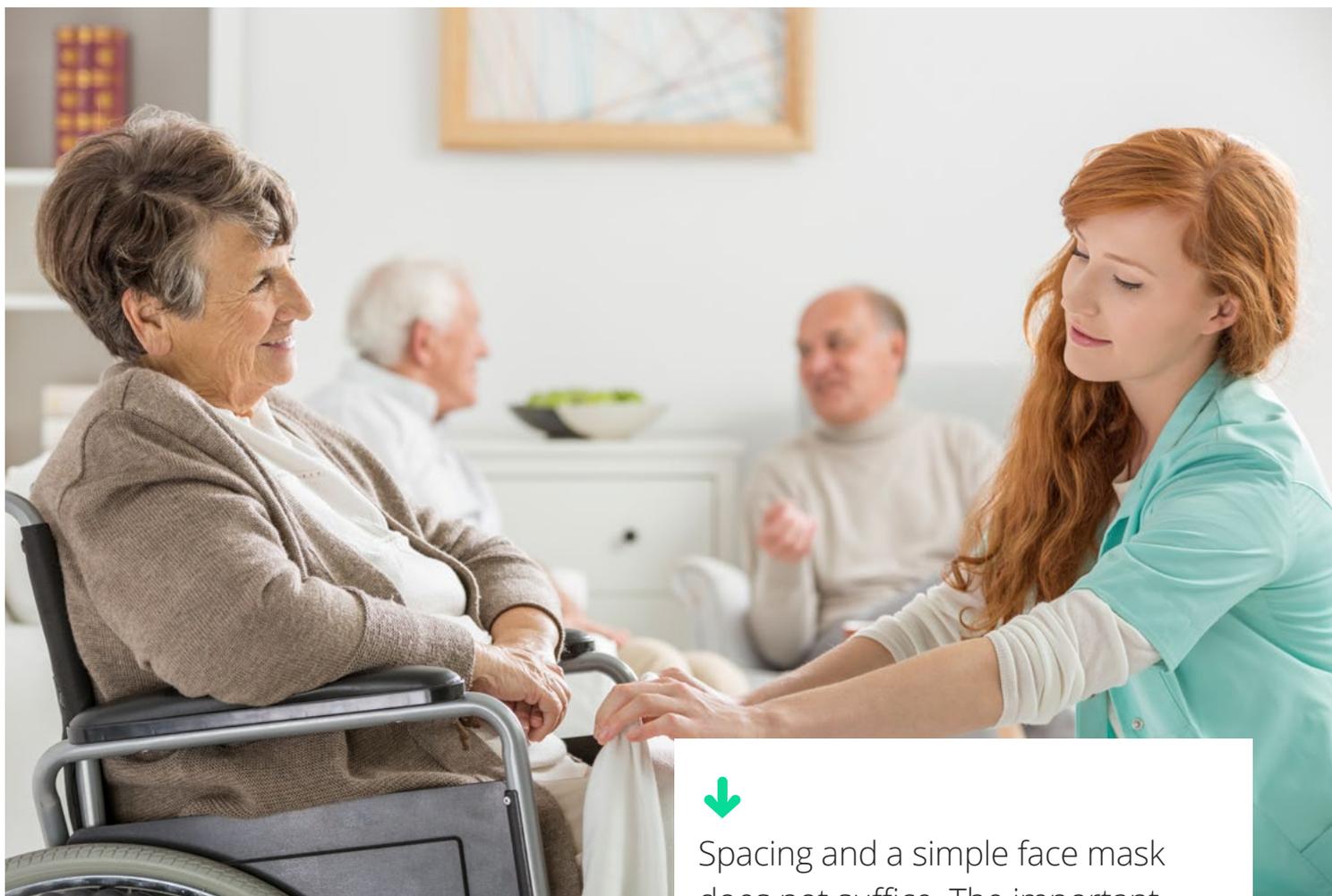


Distribution channels & the right hygiene measures

Initially, it was assumed that the main transmission route was a **droplet infection**, much like a normal cold. This means that the viruses, tied up in saliva droplets, are coughed up or sneezed out, but after a few metres they also fall down to the ground. If such droplets reach the oral or nasal mucosa of another person, he or she can become infected.



Keeping your distance, coughing and sneezing in the bend of your arm and a mouth guard are the most important protective measures.



Spacing and a simple face mask does not suffice. The important thing is, that rooms regularly and generously be ventilated. Shock ventilation is the right technique here, so the window remains open wide for a few minutes. The tilt position is not sufficient, because the air exchange is not sufficiently guaranteed. Especially if rooms cannot be sufficiently ventilated, a professional and air purifier with antiviral features is the solution. This destroys without residue all pathogens from the room air and makes them harmless.

It is becoming increasingly likely that SARS-CoV-2 can also, perhaps even primarily, spread through **aerosols**, similar to measles or chickenpox. Here the virus is released in small, light droplets just by breathing and speaking - the louder you speak, the more viruses are released. These droplets are so light that they remain in the air as „clouds“. These can still be seen after several hours of infectious air floating in the room. Evidence for this way of infection is mounting in global studies.



The simple and convenient touch operation allows you to change settings and display necessary information.

AiroDoctor – in action against SARS-CoV-2

UV LED photocatalysis technology

Viruses are trapped in droplets of exhaled air and can even move through the air in the form of aerosols. The UV LED photocatalysis technology filters and decomposes even the smallest pathogens.

The AiroDoctor is a modern air purifier with a four-way filter system that uses photocatalytic technology to render infectious aerosols harmless without leaving any harmful substances behind. This applies to 99.9% of all corona viruses, noro- and influenza vi-

ruses as well as all harmful and multi-resistant bacteria, harmful gases and odours. The AiroDoctor is already being used by the South Korean government in particularly affected corona emergency centres at the beginning of the SARS-CoV-2 pandemic.

To a small extent, indirect infection via **smear infection** is also considered possible, as for example in clostridia and other gastrointestinal diseases. SARS-CoV-2 has been shown to be infectious on plastic and stainless steel surfaces for up to 4 days. If one touches such contaminated surfaces and then grabs one's face with the hand - especially mouth, nose, eyes - one can also become infected.



Hand disinfection and hand washing as well as generous surface disinfection prevent smear infections. Surfaces made of certain materials such as copper or silver also destroy any viruses on them and render them harmless in a short time.

CopperDoc – Invisible surface protection against viruses and bacteria

This transparent copper foil eliminates viruses such as SARS-CoV-2: the copper ions damage the structure of the virus, rendering it harmless. This germ-reducing film can be applied quickly and easily to all furnishings and equipment. While SARS-CoV-2

remains infectious on plastic and stainless steel surfaces for days, the virus on copper has a half-life of 45 minutes, after 4 hours the latest it is completely inactive.



More info / good to know!

Always current information is available on the homepage of the World Health Organisation (WHO):
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Corona information in different languages can be found on the website of the Federal Government Commissioner for Integration:
<https://www.integrationsbeauftragte.de/ib-de/service/Fragen-und-antworten/1731242-1731242?index=1731568>

Those who prefer listening to rather than reading: „This week in virology“ regularly broadcasts a podcast on the latest findings on SARSCoV-2 with changing scientists:
<http://www.microbe.tv/twiv/>

The protective masks – an overview

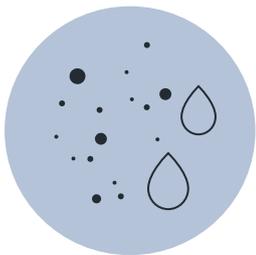


Type of mask:	Community Mask (Mouth and Nose Mask)	Medical face mask (Mouth and nose protection (MNS), surgical mask)	Filtering half mask (FFP1, FFP2, FFP3)
			
Description	Homemade, reusable, washable	Medical device Approved and certified	Medical device Approved and certified
Suitable for everyday work?	No!	Yes (external protection)	Yes (self protection / industrial safety)
General info	Minimal protection against droplet infection in everyday life. DOES NOT adequately protect against infection with SARS-CoV-2, but if everyone wears them, the risk of infection is in- creased by both droplets and aerosols reduced overall.	Protects against droplet infection Suitable as a general protec- tive measure when on duty, when dealing with colleagues and non-infected patients. Patients should also wear mouth and nose masks in closer contact. Wear close fitting, enclose beard.	Protects against aerosols and droplet infection. Should be worn when handling infected persons. ATTENTION: FFP masks WITH filters only protect against infection! Under no circum- stances should they be worn by infected persons, as the air they breathe would be distrib- uted in the room via the valve Wear tightly fitting, (safety only without beard) (medical sector).



Resource-saving use of protective masks

This includes for example the repeated use of protective masks. There are a few things to consider to avoid an additional risk of infection. The respective hygiene and pandemic emergency plans of the facilities are decisive in coordination with the respective health authority.



In case of significant moisture penetration or extreme **contamination** with droplets or aerosols of an infected person, the protective material must be discarded.



When putting on and taking off, pay attention to the possibly contaminated outside and avoid subsequent smear infection. **Disinfect hands** before and after mounting and dismounting! It is best to practise on an unused sample first!



Before use, **write the name and date on the lower part of the mask** with a waterproof pen, if the mask is to be reused. Re-use should be per nurse and patient.



Allow to air dry between uses, protect from contamination!



More info / good to know!

The Centers for Disease Control and Prevention have released guidance for healthcare facilities on managing operations during the COVID-19 pandemic:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-hcf.html>

The Centers for Medicare & Medicaid Services have compiled FAQ for out-patient and in-patient nursing facilities:

<https://www.cms.gov/files/document/covid-faqs-non-long-term-care-facilities-and-intermediate-care-facilities-individuals-intellectual.pdf>

The specialist medical publisher Elsevier offers free resources on SARS-CoV-2 and COVID-19 in their information center and free access to 31,000+ articles on ScienceDirect:

https://www.elsevier.com/novel-coronavirus-covid-19-any/landingpage/LP-Hygiene/pr_20200415c_Pflegespecial_Covid-19_8OK.pdf



How to stay healthy despite corona!

Tips for the daily work routine!



Ventilate, ventilate, ventilate! Duty rooms, corridors and patient rooms must be ventilated regularly and sufficiently to prevent infection via infectious aerosols.



Drink plenty! Anyone who breathes for hours through a protective mask must regularly moisten their nose/throat area. In addition, the body loses more fluid than usual due to increased mouth breathing under the protective mask and sweating under the protective clothing.



Moisten the nasal membranes! To prevent the nasal passage under the protective mask from drying out too much, moisten it several times a day with isotonic saline solution or seawater nasal spray!



Avoid pressure points! If the rubber bands of the mouth and nose mask slowly but surely rub the skin on the ears: Relieve pressure from time to time, for example with small non-sterile sponges that are clamped between the rubber and the ear.



Spectacle wearers, beware! Here the mouth and nose mask must sit tightly on the nose, so that the glasses do not fog up. As an experiment, you can also dip the glasses into a soap bath and carefully polish them dry. The thin soap film should protect against fogging.



Disinfect hands instead of washing hands! This may sound strange at first, but hand disinfection is actually more gentle on the skin than washing.



Disinfect personal items! Disinfect glasses, transponders and pens at the latest at the end of the service. When dealing with infected persons, this must of course be done immediately after contact.



Find balance in your free time! The more strenuous the shifts, the more important it becomes to have healthy and active leisure time. Make sure you eat a balanced diet, drink enough fluids and exercise. Reducing stress effectively and replenishing energy is more important now than ever!



Pay attention to skin protection! Under protection and insulation conditions, the hands are stressed even more than usual. Therefore pay attention to sufficient skin care at the latest now and apply cream as often as possible. Tip: If this is not possible in the hectic pace of everyday work between disinfections, simply rub your hands together or on your forearms again after the disinfectant has taken effect. In this way, the fat dissolved by the disinfectant is distributed again on the skin.

We are happy to answer your questions about AiroDoctor!

Andrea Guerra

Phone: +49 (0) 30 398868502

AiroDoctor is a brand of:

ScreenSource GmbH
Köthener Str. 8
06779 Raguhn-Jessnitz
GERMANY

Phone: +49 (0) 30 39886850

E-Mail: europe@airodoctor.com

Web: www.airodoctor.com

Commercial register: HRB 24520

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