

Virus disinfection with UV-C light in medical practices

Case study of a podiatry practice for the protection of patients and employees

Viruses, bacteria and other microorganisms spread through tiny water droplets in the air, so-called aerosols. They can survive there for a long time and are transmitted from host to host. The risk is particularly high in rooms with many people - such as waiting rooms, offices, gyms or classrooms in schools. Often, the situation is aggravated by the fact that these rooms cannot be well ventilated or there is no central ventilation. Especially in winter, ventilation is also unpleasant: ideal conditions for viruses.

UV-C light is energy and very effective against viruses, bacteria and fungi. Especially viruses, such as the SARS-CoV-2 virus and its mutations are easily destroyed by it. They have only a thin lipid (fat) layer. This is easily penetrated by UV-C light and destroys the virus immediately. Elderly and pre-diseased patients are often dependent on regular medical foot care. Exactly these persons belong to the risk group for Corona and need particularly high protection in the podiatry practice.

The usual hygiene measures such as masks and hand disinfection must be supplemented in medical practices. Especially when the schedule is fully clocked, this is a challenge. Frequent airing is difficult, especially during the cold season, because patients with bare feet could catch a cold. Wet disinfection makes some surfaces dull and brittle in the long run.

In the practice of the state-certified podiatrist Chantal Wollek, UV-C air and surface cleaning devices from Heraeus Noblelight have recently been providing additional protection. A Soluva UV-C air purification device disinfects the room air during treatments. After a session, a Soluva UV-C hand-held device is also used to disinfect all surfaces that are touched, such as handles, doors, handrails or the reception desk. Chantal Wollek places a lot of emphasis on safety: "For me, it was very important that devices that disinfect with UV light have a test seal, such as the CE mark. In addition, the scientific evidence convinced me." So far, the experience has been consistently positive. Patients appreciate the additional protective measures.



The renowned Fraunhofer Institute for Building Physics has for the first time confirmed the effectiveness of air disinfection by means of closed UV-C air purification devices under real conditions for a classroom on the basis of an elaborate scientific application test. Heraeus UV-C air purification devices can reduce the virus load in closed rooms by over 99%.

The disinfecting effect of UV-C light has been confirmed in further tests, e.g. with the Hygiene institut biotec or the University Hospital Tübingen.

Advantages of UV-C disinfection with Heraeus Soluva equipment:

- ✓ free from chemicals
- ✓ without filter
- ✓ low maintenance requirements
- ✓ without ozone and by-products
- ✓ no uncontrolled escape of UV-C-light
- ✓ no germ resistance formation

