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## Can cleaning processes based on ozone be used for high-touch surfaces in nursing homes in areas critical for infection control?

**Keywords:** Ozone, cleaning processes and disinfection, areas critical for infection control, confirmed efficacy

### Abstract

The transmission of infections in nursing homes is a serious risk factor and a major cause of morbidity and mortality [1, 2, 3, 4, 5, 6, 7]. Disinfecting surface cleaning is part of an infection prevention bundle in nursing homes [8]. Targeted surface disinfection is indicated, e.g. routinely when preparing clean work surfaces or after contamination in the residents' environment as well as in the event of outbreaks. According to the recommendation of the Commission for Hospital Hygiene and Infection Prevention (KRINKO) at the Robert Koch Institute (RKI) Berlin on the hygiene requirements for cleaning and disinfection of surfaces and to the additional KRINKO-statement on the special requirements for disinfectants in areas critical for infection control, procedures should be used that have been certified by the Association of Applied Hygiene (VAH) for the necessary spectrum of efficacy - or are listed accordingly in the disinfectant list of the Robert Koch Institute [9, 10].

Different ozone-containing products for the decontamination of surfaces are offered on the market, generated in circulating water by special electrodes. These products, based on stabilized ozone-containing water, are neither an approved biocidal product nor certified and listed as disinfection procedures by VAH. They are not marketed as biocides or certified disinfectants, but instead described as sanitizing systems "with germ-reducing effect".

If the indication for surface disinfection according to the KRINKO recommendation [9] exists, the application of a method can only be justified if the product is approved as a biocide or registered as a medical device and the efficacy has been confirmed and certified according to the requirements of the VAH or the EN requirements in two manufacturer-independent expert opinions. This has not yet been achieved for methods based on stabilized ozone-containing water.

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### Biography

I am a specialist in hygiene and environmental medicine and have been working in the field of hygiene and infection control for 29 years. After completing my specialist training at the University of Kiel, I worked for 5 years in the field of hospital hygiene and afterwards longtime at state level in the Schleswig-Holstein Ministry of Health before moving to the base of the public health service at Kiel in 2022. As a representative of the public health service, I am a member of the Commission for Practical Hygiene and have guest status on the Disinfectant Commission of the Association for Applied Hygiene (VAH).