

Screening for Aerosol Contamination (11/05)

Hubar JS, Pelon W. Low-cost screening for microbial contaminants in aerosols generated in a dental office. *Gen Dent* 2005;53:270272.

It has been reported that aerosols and droplets generated by high-speed dental drills and cavitrons are contaminated with blood and bacteria and represent a potential route for transmitting disease. Bacterial cells possess a negative electrical charge, while the cathode ray tubes (CRT) that are used in computer monitors generate positively charged static electric fields. Consequently, bacteria dispersed within these aerosols could be attracted to the screens on CRT monitors. In this study, pathogenic strains of *Staphylococcus aureus* were found on CRT screens in different locations within the Louisiana State University School of Dentistry facility. **The results suggest that surveying CRT screens is a simple method for evaluating the airborne microbial contaminants present within a dental office.**



DECS Comment: It is well documented in the medical literature that computer equipment can serve as a potential reservoir for infectious agents. Avoiding contamination is important because most computer equipment cannot be properly cleaned and disinfected or sterilized. Good hand hygiene is important. Before touching any office equipment wear powder-free gloves or ensure your hands are clean. Computer equipment is an example of a clinical contact surface and the basic principles of cleaning and disinfection used routinely in the dental operatory also apply. Currently most cleaning and disinfecting products used in the dental clinic are not compatible with the computer equipment. Therefore, computer equipment should be covered with a plastic barrier when contamination is likely. This would apply primarily to the mouse and keyboard. Like any barrier used during patient care, it should be changed between patients. If a reusable form-fitted barrier is used, it should be cleaned and disinfected between patients. The present study used microbial sampling to determine contamination levels; however readers should be aware that the Centers for Disease Control and Prevention (CDC) does not recommend routine microbial monitoring of environmental surfaces except for the purposes of research and epidemiological investigations.

Selected References

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3. Ivey JC, Oomen B, Forstall G. Fungal contamination related to personal computer devices installed in a hospital intensive care unit. *Am Soc Microbiol Abstrs* 2001;L1:469.
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