

THERMA-KLEEN®

INDUSTRIAL DRY VAPOR CLEANERS

Advantages of Dry Vapor for Reducing Infection Risk

Reducing Hospital Infection Risk with Steam Cleaning

A hospital is supposed to be a place of healing and safety. But, what happens when the place you go to get better actually poses its own set of risks to your health? Unfortunately, this is the reality that the healthcare world is facing. Increasingly, hospitals and healthcare facilities are having to deal with patients that acquired an infection such as Staph or MRSA, not from the outside world but from right inside the healthcare facility. There is a reason that doctors, nurses and hospital staff take hand washing and disinfection of surfaces and instruments very seriously, they are dealing with very sick, sometimes contagious patients and infection can spread quickly without the following of proper protocols.

Consumer Reports: sheds light on just how concerning hospital infections are and why more and more hospitals need stringent and effective cleaning protocols in place to combat the issue, "Every year an estimated 648,000 people in the U.S. develop infections during a hospital stay, and about 75,000 die, according to the Centers for Disease Control and Prevention (CDC). That's more than twice the number of people who die each year in car crashes. And many of those illnesses and deaths can be traced back to the use of antibiotics, the very drugs that are supposed to fight the infections." While the first instinct may be to grab every chemical disinfectant and throw it at the problem, that is not necessarily the answer. First of all, chemical cleaners leave behind a biofilm that acts as a protective barrier under which bacteria can find safe harbor and grow with reckless abandon. Further, chemical cleaners have been linked to many health concerns including asthma and some forms of cancer. Hospitals and healthcare facilities must find a safe and effective cleaning method that eradicates bacteria and allows patients to safely seek treatment. For this reason, many hospitals and healthcare facilities are turning to steam cleaning for its powerful cleaning and disinfecting capabilities. Many hospital and healthcare surfaces including tables, chairs, beds, floors,

showers, grout, and more can harbor harmful bacteria that can spread infection. Further, chemical cleaners cannot clean all of these surfaces, let alone tiny pores or cracks and crevices, but steam can.

Infection Control Today: describes just how effective steam cleaning can be in healthcare settings and provides research to back it up, "Therefore, my colleagues, Jonathan D. Sexton, MS; Benjamin D. Tanner, PhD; and Sheri L. Maxwell, BS, and I recently undertook a research project involving a novel steam vapor sanitation device to determine surface disinfection efficacy with the tap-water-only method in a major Arizona hospital. The study was carried out in eight occupied rooms of a long-term care wing of a hospital. Six surfaces per room were swabbed before and after steam treatment and analyzed for heterotrophic plate count (HPC), total coliforms, methicillin-intermediate *S. aureus* and methicillin-resistant *Staphylococcus aureus* (MISA and MRSA), and *Clostridium difficile*. The resulting research report published online on June 8, 2011 in the American Journal of Infection Control (AJIC) stated, "The steam vapor device consistently reduced total microbial and pathogen loads on hospital surfaces, to below detection in most instances" and that the system "provides a means to reduce levels of microorganisms on hospital surfaces without the drawbacks associated with chemicals." Steam cleaning is fast, eco-friendly and, most importantly, effective at the removal of harmful bacteria which can reduce the risk of hospital-acquired infection in patients.

Clinical Microbiology Review: notes just how effective steam is for disinfection of contagious infections, "Steam Vapor Machines are rapidly effective against a wide range of pathogens, notably VRE, MRSA, and Gram-negative bacilli, including *P. aeruginosa*. Initial inocula of 7 log₁₀ selected organisms are reduced to undetectable levels in less than 54 seconds following exposure to steam. The total surface bioburden from hospital surfaces is decreased by more than 90%, along with almost complete elimination of pathogens."

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