



Why humidify?

For hospitals & care facilities...

Humidification and Evaporative Cooling

 **nortec**
humidity.com

Humidified air improves air quality for the health care industry

Correct humidity is essential to patient health, staff comfort and prevention of electrostatic damage to medical equipment.

For the medical industry, the goal is to treat the injured or ill in a safe and comfortable environment. Hospital staff must also have a comfortable environment, so they are at their best in order to perform proper diagnosis and treatment. Hospitals also have various rooms with various purposes. They range from waiting rooms to intensive care units, x-ray facilities and surgery rooms. All of these types of rooms require a degree of air quality which includes specific requirements for humidity.

A comfortable, healthy atmosphere is necessary for rest and recovery. If a health care environment is too dry it will not only hinder a patient's recovery but will also encourage infection and further illness. Deviations from the mid-range of relative humidity (RH) of 40-60% can reduce air quality by causing an increased growth of bacteria, airborne infection, sore eyes, sore throat, increased static and dust, and premature coagulation.

Airborne Infections

Dry air will attempt to pull moisture from all possible sources in a room including mucous membranes. Mucous membranes are our bodies natural defense against airborne infections. If our membranes dry out we are more prone to colds, flus, and viruses.

Dry Eyes and Sore Throat

Having dry eyes or a sore throat can be one of the first signs of exposure to dry air. These symptoms can make the working environment for staff uncomfortable and can be problematic for those that have that a weak immune system.

Dry Skin

When a room is dry, the air will draw moisture from the skin causing dry patches, itchiness, rashes and discomfort.

Maternity Wards

Humidity levels in maternity and obstetric wards are critical to babies as they are particularly sensitive to dry air. Low relative humidity can also affect babies with existing respiratory problems.



Premature Coagulation

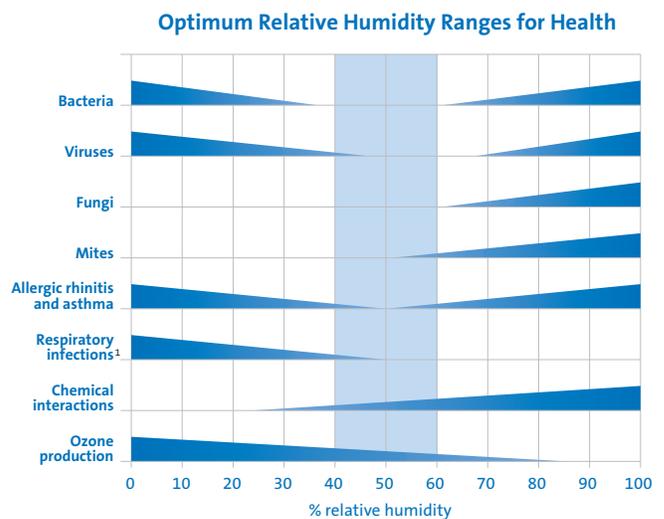
Correct humidity levels are essential in operating theaters. Low RH levels can cause premature drying and formation of scabs from coagulated blood. This is also a concern in burn units.

Static and Dust

When humidity drops below 40% RH, the build-up of static electricity is increased. Static damages sensitive electronic equipment and will cause dust to rise into the atmosphere. By maintaining proper RH levels, static build-up is eliminated and dust is suppressed.

The Sterling Chart – optimum RH for health

The Sterling Chart below illustrates how RH affects health and well being. Colds, flu, sore throat, dry eyes, itchy and cracked skin are all symptoms that are usually prevalent in the cold dry months of the winter when the indoor RH is at its lowest. The increase in bacteria, viruses and ozone production (caused by static electricity) in low RH levels all have an adverse affect on health.



¹Insufficient data above 50% RH.

E.M. Sterling, Criteria for Human Exposure to Humidity in Occupied Buildings, 1985 ASHRAE.

When it comes to patient care, no one has more experience with humidity than Nortec.

In hospitals and care facilities, humidifiers are the workhorse for respiratory concerns, equipment operation and preventing the spread of bacteria and viruses. Whether it is localized humidity control for individual operating theaters or whole hospital humidification, Nortec has successfully done it all.

VA Fort Worth Outpatient Clinic, Texas 105,000 sq ft Campus | Patient care rooms

Community Memorial Hospital, Kansas 30,000 sq ft campus | Operating rooms | Patient care rooms

IUPUI Campus, Indiana 20,000 sq ft research Campus | Laboratory hospital research

UCSF Medical Center, San Francisco 787,000 sq ft campus | Patient care rooms | Operating rooms

The Children's Hospital of Philadelphia 700,000 Sq ft research campus | Patient care rooms | Laboratory research rooms

University of Maryland Medical Center 380,000 Sq ft | Patient care rooms | Operating rooms

Johns Hopkins University Hospital 1,600,000 Sq ft | Patient care rooms | Laboratory research rooms

Walter Reed National Military Medical Center 880,000 Sq ft | Patient care rooms | Operating rooms

Fort Detrick Community Based Outpatient Clinic 15,000 Sq ft | Patient care rooms | Laboratory research rooms



EL-Series Electrode steam humidification



LS-Series Pressure steam humidification



SE-Series Steam exchange humidification



ME-Series Media Evaporative cooling & humidification

As the leading manufacturer of commercial/industrial humidification systems for more than 40 years, Nortec has the technology and application expertise to meet the needs of any application.

Contact us today and ensure you have the best humidification solution for your hospital or care facility.

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