

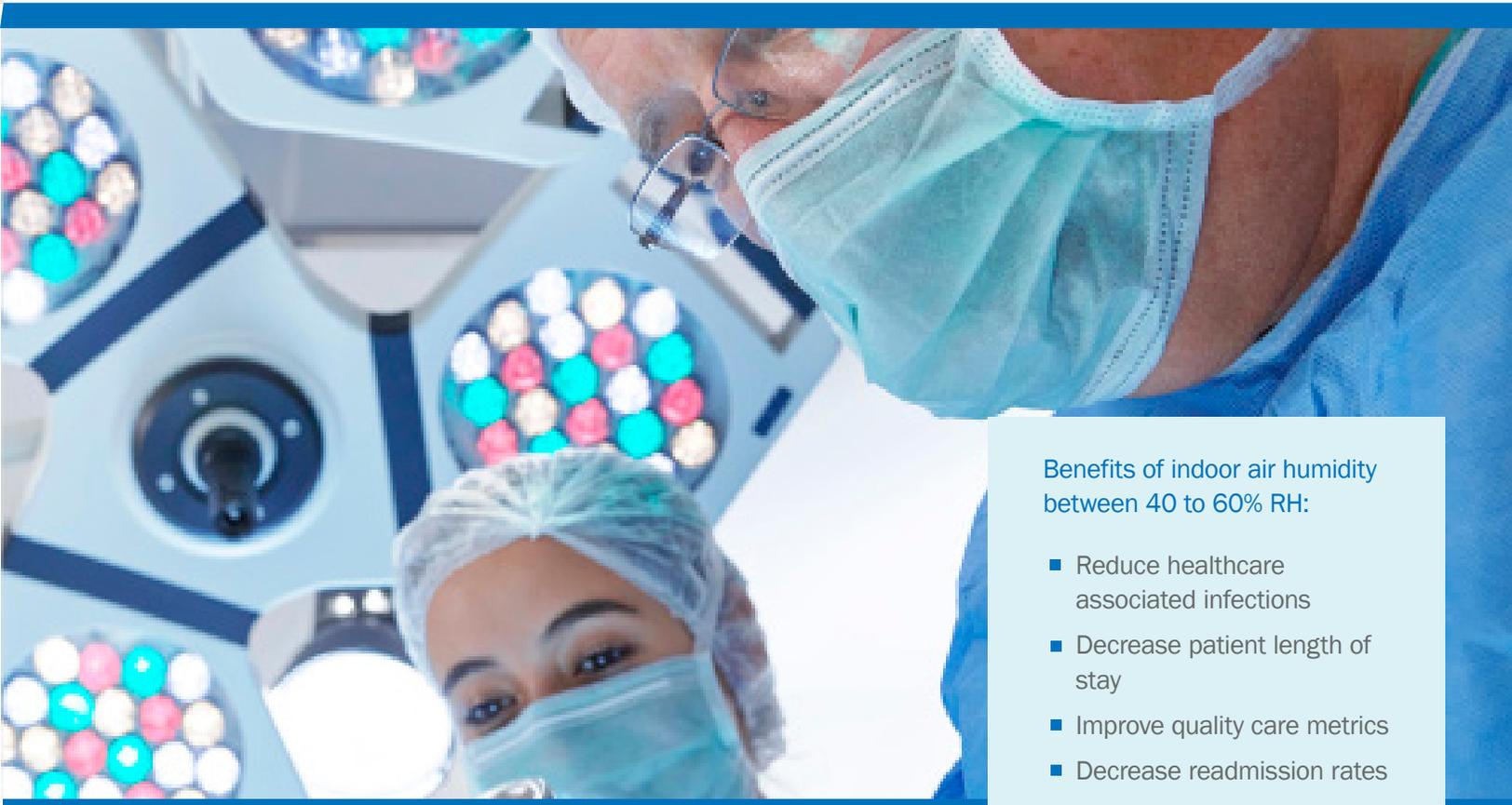
# Why humidify?...

## For Hospitals & Healthcare



Improve patient experience and maximize revenue with balanced air hydration

**40TO60RH.COM**  
THE HEALTHY HUMIDITY



Benefits of indoor air humidity between 40 to 60% RH:

- Reduce healthcare associated infections
- Decrease patient length of stay
- Improve quality care metrics
- Decrease readmission rates
- Maximize revenue

### Overview

The hospital environment requires carefully managed indoor air quality to ensure effective patient care and optimal patient outcomes. Balanced air hydration has a long list of benefits for hospitals and healthcare facilities, including reduced healthcare associated infections (HAIs), improved patient outcomes, improved quality care metrics, decreased readmission rates and decreased length-of-stay. Perhaps counter intuitively, modern air hydration technologies also offer significant cost savings in facility operations, thereby improving energy efficiency and further maximizing revenue.

### Reduce Healthcare Associated Infections (HAIs)

Studies show that at least 9% of patients acquire a new infection, called a HAI, while in the hospital. Research also suggests that 15% to 30% of infectious microbes within hospitals can be transmitted by air. Unless this airborne route of contagion is addressed, contact precautions such as hand hygiene will never achieve optimal infection prevention. Clearly, this has significant impacts on a hospital's ability to treat patients. Hospitals require balanced air hydration in order to effectively control and suppress airborne bacteria and viruses.

When people talk, cough and sneeze they continually emit droplets carrying the normal bacterial and viral microbes which reside in their mouth and upper respiratory tract. If the person is sick, these droplets also carry disease-causing microbes, called pathogens. In a dry environment, these expelled droplets shrink dramatically



to become tiny particle-like droplets called droplet nuclei. Droplet nuclei can circulate for days, infecting other patients at great distances from the initial patient.

The implementation of an effective indoor air hydration system limits the drying and shrinking of expelled droplets, allowing larger droplets to settle rapidly and thereby reducing the airborne spread of infectious microbes.

#### Improve Patient Outcomes

Hospitalized patients are usually in a weakened state from their illness, injury or surgery and are already vulnerable to catching viral and bacterial infections. Dry indoor air is especially dangerous to patients for two reasons; first, the dry air makes it easier for pathogens to spread through the air as discussed above. Second, dry air impairs patients' primary defenses to these airborne germs. Hydrated mucous respiratory membranes and healthy skin are patients' natural barriers against infectious microbes. In a dry environment, these protective barriers become compromised and less effective at preventing infections from airborne pathogen invasion. For these reasons, proper indoor air hydration supports their natural immune defenses and boosts their healing speed and potential.

#### Improve Quality Care Metrics and Hospital Report Card Scores

Preventative actions and measures to keep patients from returning to the hospital after discharge have become an increasingly important metric in measuring healthcare facility performance. In order for a hospital to meet industry performance standards, clinical care must support patients' long-term health above all else. Ensuring proper air hydration levels throughout your facility supports positive patient outcomes, which has a significant impact on the facility's performance when it comes time for industry evaluations.

#### Decrease Readmission Rates

The goal of the hospital is to provide patients with short-term, high-level care when needed, and then to support their continued recovery at home. With more and more facilities running at maximum capacity, efficient in-patient

care and safe discharges are integral to ensuring that hospital resources are available for new patients. Ensuring a safe healthcare facility environment through air hydration is just one of the ways you can support optimal patient healing and decrease HAIs that often lead to rapid readmissions.

#### Decrease LOS (Length-of-Stay)

An increasingly important metrics in healthcare facility performance is length-of-stay. With the demand for beds in hospitals at an all-time high and medical costs staggering, efficient treatment and avoidance of wasted resources is integral to ensuring patients' access to quality care and hospital fiscal survival.

#### Reduce Energy Consumption and Cost of Operations

As of December 2016 (ASHRAE 170), hospitals are now authorized to implement adiabatic air hydration systems.

These new air hydration technologies offer significant energy and cost reduction for healthcare facilities, in part due to a more streamlined, high-efficiency system, as well as the additional adiabatic cooling benefits that lessen the load on your current operations.

With the year-over-year cost savings, the installation of a higher efficiency air hydration system makes a significant impact on facility revenue. equipment itself can be damaged from electrostatic shocks, suffer from data loss, or even short-circuit. When it comes to maintaining standards, proper humidity control is critical in more ways than we can count.

The relative humidity in an office environment should remain between 40 to 60 percent to keep employees, equipment, and operations running in prime condition. Condaire is pleased to offer a wide range of humidification and evaporative cooling solutions available to suit your needs. With a cleaner, healthier, and safer environment comes benefits such as improved employee retention, efficiency, and more cost-effective operations.



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**For more information on relative humidity for hospitals and healthcare visit [www.40TO60RH.com](http://www.40TO60RH.com)**