



Humidification for Senior Living Facilities

Maintaining indoor relative
humidity of 40-60% protects
the most vulnerable and
saves lives.

Humidification, Dehumidification
and Evaporative Cooling

 **condair**

HUMIDITY FOR HEALTHY RESIDENTS AND WORKERS



Reduce Airborne Virus Transmission

In light of the COVID-19 pandemic, it is now more important than ever to listen to the evidence showing that optimum humidity can improve our indoor air quality. Proper indoor humidification helps save the lives of our elderly population by minimizing transmission pathways that are particularly inherent in enclosed, high-density living spaces.

Viral strains and other bacteria are transported through droplets of moisture known as aerosols. When relative humidity is too low, they can linger in the air and travel farther from the distribution source, increasing transmissibility.

Furthermore, in atmospheric conditions below 40% RH, the protective mucosal layer covering the cilia in the throat and nose can dry out, limiting the body's ability to capture and expel viral particles and microbes.

Benefits of adequate humidification for virus prevention and mitigation:

- Airborne droplets containing viruses are heavier and fall out of the air sooner
- Droplets containing viruses retain moisture allowing physiochemical reactions to deactivate the virus
- The respiratory immune system's defenses function effectively, capturing and removing airborne pathogens



Post-Operative Healing

For the many senior living residents that will inevitably undergo medical procedures and operations, humidification is a vital contributor to post-operative healing.

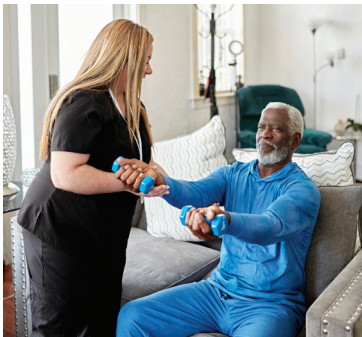
A moist environment is crucial to wound-healing as it prevents tissue dehydration and cell death, while accelerating the formation of new blood vessels, increasing the breakdown of dead tissue and potentiating the interaction of growth fibres.

This not only reduces pain and discomfort for the patient, but also expedites the healing process, lessening the hours of aftercare required from nurses and personal support workers.



HUMIDITY FOR IMPROVING QUALITY OF LIFE

“Skin tears went down 50% in the first 3 months ... Respiratory conditions including colds and sinusitis were almost non-existent”



CASE STUDY: Middletown Home Sees Value in Humidification System

After adding Condair’s SETC Humidification system, Middletown’s humidity levels went from an average of 20% RH to between 40% RH and 45% RH. The resulting impact on residents was noticeable almost immediately.

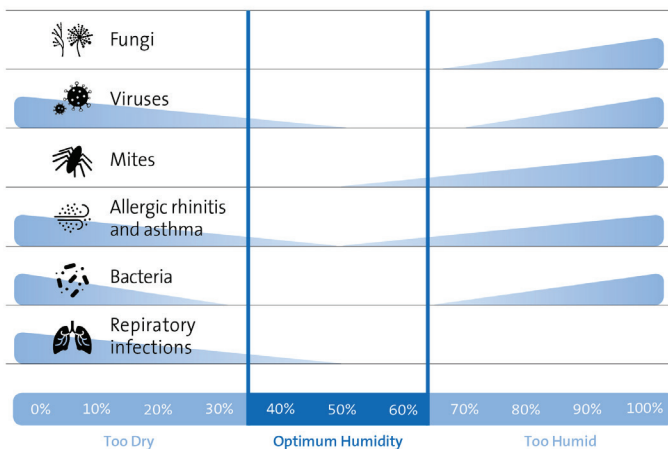
Skin tears went down an average of 50% in the first 3 months compared to the same period the year before, and respiratory conditions including colds and sinusitis were almost non-existent. “Keeping residents healthy and more comfortable improves their quality of life,” says Nicole Brandt, a registered nurse and Infection Preventionist at the home. “Healthy residents are more social and able to participate in more activities. It makes them physically and mentally healthier and happier.”

Protect Skin and Eyes

Elderly skin and mucousal tissues in and around the eyes, mouth and nose are more susceptible to the affects of dry air. As we age, skin becomes thinner and loses some ability to retain the moisture required to keep it healthy. This results in uncomfortable flaking, chapping and cracking, especially around the hands, lower arms and lower legs.

Best Relative Humidity for Health

Scofield/Sterling Diagram



Consistently dry air can also lead to dry, uncomfortable eyes and nosebleeds among seniors, which require extra care from nurses and personal support workers. These affects are particularly worse in cold climates and dry climates.

Indoor humidity levels of 40-60% RH help to promote healthy skin function, contributing to a higher quality of life.

The Sterling Chart (left) illustrates how relative humidity affects health and well-being, and shows that the optimal air humidity level for humans is between 40-60% RH at normal room temperatures. This optimal humidity zone minimizes risks to human health from biological contaminants and pathogens.



WHY CHOOSE CONDAIR?

Reduce Heating and Cooling Expenditures

It takes a lot of energy to heat and cool an entire senior living facility. By maintaining adequate humidity of 40-60% RH, your facility can reduce its reliance on heating and cooling systems.

Humidity affects the way we perceive temperatures. Low humidity levels can make the air feel colder than it is because it allows moisture to evaporate from the skin more quickly, requiring more central heating. This problem is exacerbated due to the fact that furnace heat tends to dry the indoor air even further, creating a cycle of inaccurately sensing the temperature of the building and continuing to heat it more.

In the hot summer, the added humidification benefit of evaporative cooling can lower indoor temperatures without increasing the use of air conditioning. Proper humidification keeps residents feeling comfortable in regular room temperatures.

About Us

Condair specializes in the design and production of superior humidification systems. We create solutions to meet your specific needs in the most efficient and cost-effective way possible. To this end, we have drawn upon our extensive experience to develop a range of products manufactured to our stringent ISO 9001:2015 certified quality standards that provide our customers with maximal reliability, minimal maintenance and a choice of energy sources.

When you choose Condair, you are choosing a company that has built a reputation for superior quality humidification systems. Condair is also the only humidifier company to manufacturer a complete range of solutions including electric steam, subsonic fogging, high-pressure fogging, evaporative media, direct steam injection, steam exchange and gas-fired technologies.



Not sure what the relative humidity is in your facility?

Claim your FREE hygrometer to test it!

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