

# Indoor Pool or Cesspool - 7 Health Reasons Why You Should be Worried

When it comes to dehumidification for an indoor pool the everyday chat is about evaporation rates, air changes per hour, humidity levels, comfort and potential structural damage.

***We rarely talk about the humidity levels and how this affects contaminates and indoor air quality... and you should be worried!***

Most people when dehumidify or ventilating their indoor pool, be it residential or commercial, do so for user comfort and for protection of the enclosure, fixtures, fittings and structure.

**For comfort and building/structure protection we design for 50% RH to 60% RH.**

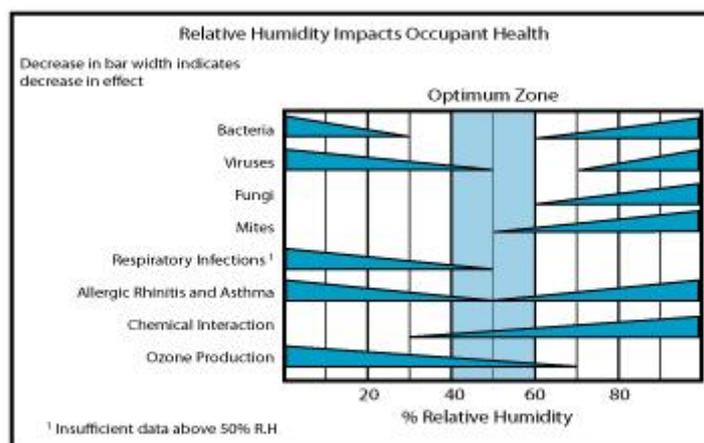
Below 50% RH you can increase the cost to dehumidify and above 60% RH you reduce the dehumidification cost but then increase the risk of potential moisture damage to the building.

We rarely talk about the humidity levels and how this affects contaminates and indoor air quality... and you should be worried!

**7 health reasons why the humidity target should also be between 50% RH and 60% RH.**

Most people think humidity control is for comfort and structure protection only, but we also have to be very concerned about bacteria, fungi, mould, mites, respiratory infections, allergic rhinitis, asthma and chemical interaction. All of these flourish in a humid environment.

The data below shows when these can become an issue, below 50% RH and above 60% RH the risk is the highest!



Study by Theodore Sterling Ltd., A. Arundel Research Associates and Simon Fraser University.

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*The information posted below has been compiled from a study done by Theodore Sterling Ltd., A. Arundel Research Associates and Simon Fraser University.*

- bacteria - the risk increases below 30% RH and above 60% RH
- fungi - the risk increases above 60% RH
- mites - the risk increases above 60% RH
- respiratory infections - the risk increases below 50% RH
- allergic rhinitis - the risk increases below 50% RH and above 60% RH
- asthma - the risk increases below 50% RH and above 60% RH
- chemical interaction - the risk increases above 60% RH

All very good reasons to talk with professionals when designing your indoor pool dehumidification and ventilation system.

A good designer or application engineer will not recommend a system that falls short of what you really need... for all the reasons listed above!

***The amount of moisture loss from an indoor swimming pool as evaporation is a science.***

There are computer programs that can be used and manual calculations that can be done to accurately calculate the moisture evaporation rate at a given condition.

There are standards from around the world and local council/government rules and regulations that should or need to be followed.

The amount of moisture loss from an indoor swimming pool as evaporation is a science.

A good designer will also show you how they calculated the moisture evaporation rate from your swimming pool.

A good designer will ask these important questions:

1. size of the pool
2. temperature of the pool
3. size of the room
4. temperature of the room
5. what type of dehumidification of ventilation system you want/need and
6. ducting designs for best air distribution, most important for the removal of chloramines.

If you're not sure what you want or need then a good designer will always ask more questions and make some suggestions.

Designing and building an indoor pool is an expensive investment and has other concerns you need to be aware of (some listed above). You should always seek independent advice from an indoor pool specialist.

Also keep in mind that during times of high usage the humidity can and will go higher than 60% RH and that's okay as long as your dehumidification or ventilation system can reduce the humidity back to between 50% RH and 60% RH in the lower usage or non-use times.

Want to know more about how Humiscope can help you? Call us on 07 55311686 or email us: [contact@humiscope.com.au](mailto:contact@humiscope.com.au)

*In our next article we will be discussing chloramines in the air and the best way to minimise this serious health risk!*