

## **Views From the E-List\* – Pool-Induced Asthma**

### **Query:**

How are asthma and pool exposure related?

### **Responses:**

Dr. Judy LaKind gave a presentation at the 2007 WAHC based on a review by an international panel related to asthma and pool exposure. You can watch the seminar for free at the below link.

[http://nspfcart.eproacademy.org/store/comersus\\_viewItem.asp?idProduct=63](http://nspfcart.eproacademy.org/store/comersus_viewItem.asp?idProduct=63)

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Dr. Michael Goodman (Emory Univ) gave a meta-analysis of the Asthma/Swimming research studies. What this means is that he reviewed the scientific studies on this topic and drew conclusions about what the preponderance of data was teaching us. After all, one study by itself is not particularly relevant. Science requires verification to support hypotheses. There is a small fee for this seminar to help cover the cost to make this cutting edge information available to professionals with interest.

[http://nspfcart.eproacademy.org/store/comersus\\_viewItem.asp?idProduct=148](http://nspfcart.eproacademy.org/store/comersus_viewItem.asp?idProduct=148)

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Authors: K.M. Thickett, J.S. McCoach, J.M. Gerber, S. Sadhra, P.S. Burge. (2002). Occupational asthma caused by chloramines in indoor swimming-pool air." *European Respiratory Journal*, 19, 827-832.

Reviewed By Jodi Frank PhD, CTRS

The purpose of this study was to investigate whether nitrogen chloride is a contributor to asthma among aquatic professionals and to examine the typical nitrogen trichloride exposure levels in indoor swimming pools.

The findings were disturbing. Each subject was adversely affected. Each subject demonstrated breathing difficulties with increased nitrogen trichloride exposure. This was discovered to be directly correlated to the amount of chlorine that was administered to the pool environment. In addition, there was a direct connection between the chlorine levels, the cleanliness of the water and the air ventilation. The researchers found that the elements in the water and the chlorine reacted to each other and therefore produced airborne nitrogen trichloride that caused the asthma reactions. It was surmised, but not reviewed, during this study that the cleaner the water (less people using the body of water) the less nitrogen trichloride fumes would be formed. The researchers concluded that further research is needed in this area.

It was previously thought that chloramines were the irritants commonly affecting eyes, throat and skin, however, that is not the only problem. Now, we have to be concerned with asthma induced by nitrogen trichloride.

*\*Opinions and suggestions expressed in this column represent e-list member responses to the query posted. They are not represented by the Aquatic Therapy and Rehab Institute and/or the author(s) of this column as recommendations regarding appropriate practice.*