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Hi Jayne,

From the information I have received there is an extremely high probability that the incident of burning lungs was caused by a sudden onset of chloramines off-gassing from the surface of the pool.

Chloramines are formed when chlorine combines with ammonia and organic amines, usually from swimmers' body waste (urine, fecal incidents, sweat), and can build up to very unsafe levels for swimmers and people in the pool area over time if not treated. They can also damage, sometimes severe as they corrode all metals they come into contact with and have destroyed HVAC systems and ceiling support beams. Research has shown that the warmer the water the more the tendency for chloramines to build up, especially when coupled with a high bather load. Another significant contributor to chloramine buildup is a lack of, or substandard air movement across and from the surface of the water.

What is a mystery is that the report indicated that there was a "sudden burst" of chloramines, and I can only address this with a couple conjectures:

- Air movement failed
- Surface tension in the water was suddenly released
- A bather with a pocket of dirt jumped into the pool (reaching on this one)

Historically, the industry has advocated "shocking" the pool (raising the chlorine to 10x the level) to "burn" out the chloramines, but I have never ascribed to this. I have for the last 15+ years been a fan of low-pressure UV, and with hundreds installed across the country have had proven and documented results to the effectivity of these devices at lowering and almost eliminating chloramines. I suggest that all indoor bodies of water have UV systems installed to eliminate incidents such as discussed here, which can bring liability to the facility, and as an inexpensive "insurance policy" to protect expensive equipment such as HVAC units.

PEACE. HOPE. STRENGTH. KINDNESS

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