

# Chloramine at pool led to illnesses

UM to share report with other facilities

**By Meg Haskell**  
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ORONO, Maine — Elevated levels of chloramine in the air of the pool enclosure was the most likely cause of an illness suffered by dozens of young swimmers and coaches at a competition last March at the University of Maine's Wallace Pool.

That's the conclusion of a public health investigation by the Maine Center for Disease Control and Prevention, which issued its report earlier this week.

According to State Toxicologist Andrew Smith, the investigation explored the intersection of the regulated operation and maintenance of indoor public pools and the behavior of the people who use them.

"If you have proper pool maintenance and ventilation, and good hygiene practices in swimmers, there is usually no problem," he said Wednesday. "At this event, we had a lot of swimmers, a lot of activity, and a ventilation system that wasn't working properly."

The report says "nitrogen-containing compounds" in the pool — primarily perspiration inevitably produced by the swimmer-athletes, as well as urine — reacted with appropriate amounts of chlorine disinfectant, resulting in the production of chloramines. With all the activity and agitation of the water in the pool during the three-day meet, those chloramines would have been released into the air of the enclosure.

Normally, ventilation fans would pull the contaminated air out and pull fresh air in, but the fans at the Wallace Pool had been shut off inadvertently that weekend, university officials discovered at the time. As a result, the elevated chloramine levels in the air caused pronounced respiratory problems, eye irritation and other symptoms in dozens of swimmers and coaches.

The swim meet, organized by the group Maine Swimming Inc., brought together about 600 serious team swimmers from across the state along with their coaches and family members. More than 300 individuals completed a Maine CDC survey shortly after the event. Of those, 74 percent indicated they had been sickened with symptoms including coughing, sneezing, eye irritation, diarrhea and vomiting. No hospitalizations were reported, but 20 percent of those who reported symptoms said they had sought medical care.

Wayne Maines, director of safety and environmental management at the University of Maine, said Wednesday the incident has been thoroughly investigated, not only by the Maine CDC but also by the university itself. The results, he said, will be shared with other indoor pool facilities around the state.

Recommendations in the report include monitoring pool chemicals and ventilation more frequently and posting signs reminding swimmers to shower and use the toilet before entering the pool. In addition, the university has updated its maintenance schedule for the ventilation fans at the Wallace Pool and has posted emergency contact information for swimmers to use in the event of a problem.

Maines said the university also will check levels of airborne chloramines regularly and may be asked to participate in a national study of pool enclosure air quality conducted by the U.S. Centers for Disease Control and Prevention.

On the Web: [www.maine.gov/dhhs/boh/index.shtml](http://www.maine.gov/dhhs/boh/index.shtml).

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