

Learning the Hard Way

Mold and elevated carbon dioxide levels have an impact on academic achievement.

By Mirke Orde

The children at my school are in the care of an effective teaching team, supported by a hard-working custodial team under the leadership of a sound principal. The children have enjoyed a steady stream of extra-curricular activities regardless of provincial politics.

In addition, the school benefits from the support of two engaged parent groups: a school council that discusses meaningful issues like student achievement; and a home and school association that supports community events and supplements the school's discretionary spending budget by 50%.

Despite all of these factors in our favour, we have hit a wall – and hard! All members of the school community, students and staff, are forced to spend their school time in unsafe conditions.

The threat does not come from bullies or predators or indeed anything one can hide from. No, the threat is everywhere – a part of the air that all must breathe. Our school building has mold contamination, coupled with inadequate ventilation and elevated carbon dioxide levels.

The mold problem was first reported to the school board in 2000 by members of the school's custodial staff. The school's parents, however, did not learn of the mold until last winter when one parent was laminating teaching materials in the basement and spotted some mold.

This parent brought the information to the school council and the home and school committee. A small group formed, and its members continued to poke around the school. More mold was found, and much more was learned as the committee members read up on indoor air quality and its effect on school children.

Many meetings followed, formal and informal, involving the school's health and safety committee, school board officials, members of the local

health department, and the Ontario Ministry of Labour.

After much digging, the parents at my school learned that their school board, the Hamilton-Wentworth District School Board, has had a mold remediation protocol in place since 1998. Yet the board had not begun to implement its protocol at the school – four years after the mold hazard was first reported.

Some teachers and students in our building have been reporting a constellation of symptoms that are consistent with mold contamination. The school board, however, dismisses the information as anecdotal.

All parents of school-age children should read the U.S. Environmental Protection Agency's discussion paper titled "Indoor Air Quality and Student Performance". (www.epa.gov)

According to this paper, poor ventilation reduces a person's ability to perform specific mental tasks requiring concentration, calculation, or memory, and it therefore has an impact on academic achievement.

Children's learning is also affected when carbon dioxide levels rise beyond 1000 ppm. This gas normally constitutes 350 ppm in the atmosphere, while typical household levels are in the range of 600-800 ppm. With proper ventilation and improved management of indoor air quality, student performance increases.

Another important source of information is Health Canada's recent discussion paper entitled "Fungal Contamination in Public Buildings: Health Effects and Investigation Methods". (www.hc-sc.gc.ca)

Among other things, the report states that a "review of health effects indicates that living or working in a building with mold damage is harmful to health". It cites a study of the respiratory health of 4,600 children from six cities in the United States.

The study concluded that *the effect on children of a moldy environment was of a similar dimension to parental smoking*. The Health Canada report also referred to a Finnish study wherein 397 children from a water-damaged mold-contaminated school (referred to as "School E") were compared to 192 children from a control school where inspection revealed no mold contamination ("School C").

Questionnaires were sent to the parents of children at both schools before and after mold remediation in School E, and a physician reviewed the children's medical records.

Before remediation, the children in School E had a higher incidence of common colds and bronchitis, but the difference disappeared after mold remediation in School E.

The parents at my school are stunned by the reluctance of our school board to act. We simply cannot understand why local school board officials appear unsympathetic to our concerns and uncaring about our children's and teachers' health.

Most of us have no alternative but to continue to send our children into an environment known to be harmful to them.

There are school boards in Ontario, such as the Durham District School Board, with policies in place to ensure that all of their schools are free of mold and adequately ventilated.

If the Ontario Minister of Education is concerned enough about potato chips and pop to remove them from schools, perhaps he might consider a ban on mold as well.

Indoor air quality affects our children's health, absenteeism, and ability to learn. It's time for some non-moldy leadership on this issue!

(Adapted with permission from "Clearing the Air" in the Hamilton Spectator, November 6, 2004. Mrs. Orde has begun to introduce herself as Molda instead of Mirke.)