

Growing Concern

Mouldy portables, which are extremely common, pose a serious threat to respiratory health.

By John Lorinc

It began in the fall of 1997 with a persistent, raspy cough — an unexpectedly tenacious health problem for an otherwise spirited and athletic grade 4 student. Soon, the hacking began waking Taylor Laughlin up at night. She developed hard, white nodules around her nostrils and eyelids.

After a few months, Taylor started gasping for air every minute or so. Her worried mom asked her why she needed to inhale this way. Taylor said matter-of-factly, “When I’m at school, I only get a quarter of the breath I need. So I gasp it and save it.”

In March 1998, Taylor’s school in the Halton region found itself swept up in a stubborn controversy over mould infestation in portables. Taylor was in one. Responding to the alarm, the administration moved the class back to the main school building and began repairing the portable. Four weeks later, Taylor’s cough and that desperate gasping disappeared — for good.

Stories of mould contamination are common in many Canadian school districts. No one has yet figured out exactly how a mould spore triggers respiratory or immune-system ailments, says Tom Rand, a mycologist at St. Mary’s University in Halifax. Some people become ill while others, exposed to similar air conditions, do not.

But there is growing evidence to suggest that symptoms such as fatigue, nausea, headaches, chronic coughs, bloody noses and allergic reactions occur more frequently where there are high levels of airborne mould filaments and toxic substances produced by moulds.

According to Carleton University biochemist David Miller, mould and dampness “can powerfully affect respiratory health,” equal to the impact of breathing in second-hand smoke.

“If it’s wet enough for long enough, it will grow mould,” observes Jim White, an engineering consultant.

Portable classrooms are exceptionally conducive to growing mould: dirty carpets, stagnant water left in humidifier tubs, wooden floors that may become damp because of sloppy mopping. Just imagine 25 or 30 sets of snow-caked boots tromping in and out every day, leaving puddles under the desks!

Because portables were built to last for five or at most ten years (many are now between 10 and 25 years old), they lack the most basic design features, such as eavestroughs and overhangs — both of which are necessary for directing rainwater away from walls and ceilings.

It’s not uncommon to see portables with flat roofs, a sure sign that stagnant water will leak through the ceiling and down the walls. Sometimes, they are located on a low point in the yard, which means water may pool beneath the portable, creating a damp enclosure under the floor.

Portables are typically clad in siding and thus appear to be weather-proof. But in most of them, the siding merely covers wooden studs and dry-wall, plywood, or particle board. These building materials sometimes extend, exposed, beneath the bottom of the siding, acting like a wick for moisture to leach up the wall.

As well, there’s often a cavity between a portable’s exterior and interior walls, filled with some form of insulation. A small room filled with 30 children and one adult is far more humid than the surrounding environment, including the wall cavity. The pressure differential leads to ‘interstitial condensation,’ moisture trapped between the walls that creates perfect conditions for growing mould.

And when there’s driving rain, some moisture will invariably seep between the siding panels. At that point, nature takes command.

The children in Taylor Laughlin’s portable were taken out of the portable and the board ordered a cleanup. Later, “we were told the mould had been removed and that the portables were ‘acceptable for re-occupancy,’” Laughlin says, recalling the phrase used by the board’s environmental consultant.

But she and two other parents weren’t satisfied. Armed with cameras, the three women (known in Halton as ‘the fungus queens’) began poking around some of the other portables being repaired by the board.

They discovered (and recorded) evidence that work crews weren’t removing all the mould in the wall and ceiling cavities. They also witnessed obviously unsafe working conditions.

Toxic mould, according to experts, must be removed very cautiously so that spores aren’t sent into the environment. This made the three mothers wonder what would happen to the clothes and books left behind in the polluted classrooms.

In Oakville, the evidence from the parents was so compelling that the medical officer ultimately ordered the board to thoroughly inspect all 189 of its portables. Many had already undergone, and passed, superficial assessments performed by outside consultants.

The directive from public health officials meant cutting into walls, removing ceiling tiles, and pulling up floor boards. As a result of the inspection, 50 were taken out of service altogether, and every one of the rest was found to contain mould. It cost \$4.1 million to fix those portables.

As with other issues in education, it’s clear parents must apply political pressure to counter the inertia of hesitant or budget-stressed institutions.

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