

• Toronto Star

In the wake of deadly Halifax blaze, fire professionals call for sprinklers in all new homes

By [Taryn Grant](#) Star Halifax

Sun., Feb. 24, 2019

HALIFAX—The deaths of seven children in a house fire last week underscore the need for fire sprinklers in all new Canadian homes, according to one fire safety expert.

Automatic, heat-activated wall or ceiling sprinklers are not common in Canadian homes and are not currently mandated under the National Building Code, but with the heightened combustibility of new homes, Duncan Rydall says sprinklers are needed now more than ever.

“It’s like having a firefighter waiting in every single room in your house,” said Rydall, the chief fire prevention officer for the town of The Blue Mountains, Ontario.

Rydall has spent the past two decades working to prevent devastating blazes like the one that happened [in Halifax on Feb. 19](#), as a firefighter and fire inspector before taking up his current role.

When he heard of the deaths of the seven Barho children — Ahmad, 14; Rola, 12; Mohamad, 9; Ola, 8; Hala, 3; Rana, 2 and Abdullah, four months — Rydall said he thought of them as seven undeniable reasons that the National Building Code must change.

“We need some kind of legacy so that these kids didn’t die in vain,” Rydall said.

“Fire sprinklers in that home potentially would have saved everybody in the house,” he added.

Homebuilders can elect to install fire sprinklers, but Rydall said that few do so because of either a lack of awareness about the benefits, an aversion to the cost, or both.

“To sprinker a home is less than the price of that granite countertop that you want to have in your kitchen,” said Rydall.

“That granite countertop is not going to save your family,” he added.

He estimated the cost of sprinkler installation at the time of the home’s construction is about \$1.50 per square foot. For the 1,560 square-foot home that the Barhos were renting, that would have amounted to \$2,340.

It could cost more to retrofit existing homes with fire sprinklers, but Rydall said new builds should be the target because they’re more susceptible to fast-moving, deadly burns.

The Barhos’ home — which the family had been renting since the fall of 2018 — was built in 2014, and the Halifax fire department said the Feb. 19 blaze escalated very quickly. By the time firefighters arrived, about six minutes after multiple 911 calls came in, much of the structure was already consumed.

Older homes, by the nature of their layout and design, often present more barriers to a fire; doors and walls separate each room and every level of the home. New, open-concept homes present few such barriers.

Have your say

Should the federal government push to have sprinklers mandatory in all new builds?

- Yes. There should be no shortcuts when people's lives are at risk.
- No. It should be up to individual developers to see what makes the most sense.
- Maybe. I'd like to know more first.
- I'm not sure.

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In addition, the materials used to build new homes are more combustible, as is the furniture inside them. Rydall said that the plastic and polyurethane foam that's common in new furniture is akin to "solid gasoline."

Rydall isn't alone in advocating for fire sprinklers. The Canadian Association of Fire Chiefs notes on its website that it "believes sprinklers save lives," and it supports a change to the building code. In an interview with the Star, the division chief of fire prevention with Halifax Regional Fire and Emergency, Matt Covey, said that he and his department feel the same way — he wants the 2020 version of the National Building Code to mandate residential fire sprinklers.

The Canadian Commission on Building and Fire Codes opened a public review on the National Building Code from November 2018 to January 2019, and residential fire sprinklers were a topic of proposed change. According to the National Research Council of Canada website, the commission is considering the recent feedback before another public review opens this fall. Any accepted changes to the building code will be finalized in 2020.

Along with colleagues, Rydall said he's done tests where they set identical fires in nearly identical rooms — one with sprinklers and one without. In the unsprinklered room, the floor, walls and ceiling ignited completely after two minutes, and when the burn ended, "there was nothing left of the space." In the room with sprinklers, nothing but the arm of a couch was destroyed. Rydall said even pictures on the walls were salvageable.

The Halifax fire department said it arrived at the Barho family home on the night of the fire within six minutes of receiving 911 calls, but the fire had already consumed much of the house. According to Rydall, fire sprinklers can go off in less than two minutes.

Fire sprinklers go off at the detection of high heat — the kind of heat that only a fire could emit. Rydall said homeowners shouldn't worry about gallons of water spraying out because of some toaster or cigarette smoke, which can set off smoke detectors.

"There's no physical way for you to activate (fire sprinklers) unless there's a fire in your house," he said.

And residential fire sprinklers are more discrete than what most people are familiar with from industrial or commercial buildings. Rydall said new residential sprinklers are about two inches in diameter, can sit nearly flush with the wall or ceiling and can be painted to match, too.

While Rydall and other fire professionals are aiming for nationwide change, he pointed out that regulation could happen at the municipal or provincial levels, too. He pointed to Scottsdale, Ariz., as an example.

Since 1986, fire sprinklers have been required in every new single-family home, multi-family residence and commercial space in Scottsdale. In 2001, the city released a review of its sprinkler mandate, which said the overall civilian fire fatality rate went down at least 50 per cent in the 15 years since sprinklers were mandated, and at least 13 lives were saved as a direct result of fire sprinklers.

The seven Barho children were all laid to rest over the weekend in a cemetery in Hammonds Plains, a suburb of Halifax. Two thousand people attended a public funeral to show their support and sympathy for the family.

Parents Kawthar and Ebraheim Barho survived the Feb. 19 fire, and Ebraheim was put into a medically induced coma to aid in his recovery from extensive burns. As of Friday, he was in critical, stable condition.

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