

# New approval on transmitter aimed at saving firefighters from heart attacks

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A researcher at the University of Victoria says a transmitter the size of a vitamin pill that firefighters can swallow will help save their lives from heart attacks — the No. 1 killer of those in the business of saving others.

Lynneth Wolski, an occupational physiologist, said the combination of heat stress — from temperatures of up to 200 C — and heavy-duty protective gear worn in a stressful occupation puts firefighters at risk of heart attacks.

When swallowed, the tiny transmitter allows firefighters' core body temperature to be monitored so they can be pulled from a blaze or any high-stress rescue if their temperature is dangerously high.

The transmitter, which has been on the market for about a year and a half in the United States, was approved in January by Health Canada.

It works by sending out a radio signal of a firefighter's core body temperature via a monitor worn on the chest.

[CorTemp by HQ Inc.](#)

Another monitor also picks up heart and blood pressure rates to give a full picture of how much strain firefighters are enduring and if they need to take a break,

Wolski said.

"All of a sudden they're just too overloaded and if they're susceptible, if they've got hidden coronary heart disease or whatever else, that's it, they're done."

Statistics from the U.S.-based National Fire Protection Association indicate that over 50 per cent of firefighters die of heart attacks, Wolski said.

"When they take a look at those deaths they attribute about 85 to 90 per cent of them to thermal stress and the physical demands of (the work.)"

Wolski, who has been testing the transmitter on firefighters from the Victoria fire department, said that currently, paramedics attending fires and other rescue scenes rely on ear thermometers to check firefighters' core temperatures.

Her research has shown that the thermometers are inaccurate, recording core body temperatures two to three degrees below the actual temperature, as shown by the transmitter, she said.

Firefighters whose temperatures are measured at 38 C, for example, would be advised by a paramedic using an ear thermometer to go back to continue a job, Wolski said.

"If their true reading is actually 41 C, now they are medically in a very serious area so from our research if we see anybody above 39.5 degrees we have to pull them from continuing in the activity."

Wolski said the transmitter would be especially beneficial for firefighters who rescue injured motorists trapped in mangled vehicles — considered even more stressful than entering burning buildings.



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