

E. coli puts 2 Fredericton teens in hospital

Total of 4 confirmed cases of potentially deadly strain

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A potentially deadly strain of E. coli has put two Fredericton teenagers in hospital for treatment.

Micaella Boer and one of her young male friends are two of the [four confirmed cases](#) of E. coli O157:H7 in the city, according to Micaella's mother, Victoria Boer.

That's the same strain of E. coli that killed seven people during the tainted water scandal in Walkerton, Ont., in 2000.



Micaella Boer is one of four confirmed cases of E. coli O157:H7 in Fredericton. (Facebook)

The source of the latest outbreak of the infectious bacteria that multiply quickly remains unclear. Public health is investigating, but it could be next week before lab results are available.

"We absolutely have no idea" where it came from, said Victoria Boer. Health officials have been going through Micaella's bank statements to try to figure out where she had been eating in the days leading up to her illness, she said.

E. coli O157:H7 secretes a powerful toxin that can destroy red blood cells leading to severe illness, high blood pressure and kidney damage.

Those most at risk of developing serious complications include pregnant women, young children, seniors and people with a weakened immune system, such as those on chemotherapy.

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May be different strain



Micaella Boer has been getting plasma transfusions up to twice a day. (Courtesy of the Boer family)

But Micaella and her friend appear to have a slightly different strain, said Boer.

"It seems to be a little bit different than some of the other ones in the way that it's attacking the red blood cells, like the good ones," she told CBC News.

"So what they're trying to do is separate the good blood cells from the bad ones, and they're taking the plasma out and putting new plasma in. So I guess her body is just kind of attacking itself because it's making too many antibodies," Boer said.

"What they're saying is that for the E. coli that they have — and her friend is here with the same thing — that they usually don't have to do this kind of treatment. Only five per cent of the people with that have to have it done.

"And it just happened that her and her friend that has it are in that five percentile. All they can do is just wait and see," Boer said.

Must move quickly

Tim Sly, an epidemiologist and professor of risk assessment at Ryerson University's school of occupational and public health, expects provincial officials are working around the clock on the file.

"Right now, I wouldn't mind betting everybody in the Health Department has their leave cancelled and the epidemiology of the thing is going full blast," Sly said.

"It's a potential fatal situation in a small percentage of cases ... We need to find this out pretty quickly

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and we need to advise the community immediately."

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Physicians also have to be on alert, particularly when it comes to children, Sly said.

—Tim Sly, epidemiologist

During the Walkerton outbreak, doctors discovered giving antibiotics to children infected with E. coli appeared to increase the amount of toxin released and increased the chance of them developing hemolytic uremic syndrome (HUS), a fatal kidney disorder, he said.

Micaella is in quite a bit of pain and has been crying a lot, her mother said.

"There's a lot of swelling, facial swelling. Her eyes are swollen, her feet are swollen, her belly's swollen. So she's just really having a rough time with that," said Boer.

"We just feel sick for her ... just to watch your child in so much pain and she can't move," she said. "And hearing the percentages and seeing her have blood transfusions — it's a rough thing to go through as a parent."

Progressed quickly



E. coli O157:H7 secretes a powerful toxin that can destroy red blood cells leading to severe illness, high blood pressure and kidney damage. (CBC)

Micaella started feeling sick on July 1, and by the following day was showing symptoms, including diarrhea, Boer said. "It very quickly progressed."

Micaella was rushed to the Fredericton hospital on July 3 at 4 a.m., where tests confirmed the diagnosis.

The main symptom for this strain of E. coli is bloody diarrhea, but it can also cause vomiting and stomach cramps. There is no fever.

Micaella was being treated in Fredericton, but she started to show signs of jaundice and was rushed Monday afternoon to the Saint John Regional Hospital, where she has been receiving plasma transfusions up to twice a day, Boer said, adding it could take up to 100 treatments until her body starts reacting.

Micaella's friend, who was taken to the Saint John Regional Hospital on Monday night, is also receiving plasma treatment, Boer said.

On Monday, Dr. Denis Allard, the province's acting chief medical officer of health, had said three of the four confirmed cases had been hospitalized and that two had already been treated and released.

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Micaella is still in serious condition, but is feeling a bit better, said Boer.

The Fredericton cases come on the heels of an outbreak in Miramichi in April. At least 13 people were infected with the potentially deadly strain and another 11 people may have also been infected by the same strain, officials had said.

[Romaine lettuce](#) was recently determined to be the likely source of that outbreak.

During the Walkerton outbreak, when at least seven people died and about 2,500 fell ill, the water supply had been contaminated.



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