

Firefighter braves bacteria battle

Cleans sports gear with first ozone machine in Manitoba

By: Ashley Prest

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Steve Dech battles fires by day and stinky hockey equipment by night. Well, OK, sometimes it's the other way around as the 43-year-old Winnipeg firefighter and father of three hockey-playing sons also pulls his share of night shifts

But it was that odoriferous hockey equipment that was causing him to lose sleep, partly because of the fumes but mostly knowing it's bacteria that causes the stench -- bacteria that could hurt his children.

"I've got three sets of hockey equipment in my house and I just got tired of smelling it and I figured there's got to be a better way," said Dech, who along with wife Maureen have sons Ryan, 14, Kyle, 12 and Travis, six, involved in hockey. "I'm immersed in hockey from September through June and I know a number of people in the hockey community and everybody says the same thing. The stuff reeks! That's an indicator. If it stinks, it's got bacteria."

Dech has brought the first Sports-O-Zone machine to Manitoba -- a stainless steel machine that looks like a giant barbecue -- and he's been operating it out of Dakota Community Centre since last fall. It uses ozone gas to kill the odour -- and infection-causing bacteria, particularly the deadly MRSA (Methicillin-resistant Staphylococcus aureus) bacteria, viruses and fungus living in sports equipment. Rashes and serious infections in athletes of all ages have been linked to bacteria-laden gear.

"I'm shocked by the number of kids I hear about whose hockey bags are never opened (after the gear is used)," Dech said. "I had one brought to me that was just rancid. After the treatment, the smell was gone.... It's going to get rid of the bacteria for a time. Will it come back? Certainly, as soon as it builds up sweat in it again. But if you look after it and maintain it, you'll get more life out of the equipment and you're going to reduce an athlete's exposure to certain things."

Ozone gas naturally occurs in the ambient air and is known as the second most powerful sterilizer in the world. It's used in hospitals, the food industry and fire restoration to kill bacteria and reduce odour.

All equipment, including skates, gloves and helmets, can be sanitized in the Sports-O-Zone machine because there are no sprays or heat and equipment stays dry in the 15-minute ozone treatment cycle. A large amount of sports equipment -- 20-25 football helmets or 12-15 sets of football shoulder pads -- can be sanitized in a single cycle.

Ian Brown, Football Manitoba's master course conductor for equipment maintenance and fitting, said equipment at the amateur level is shared by countless players over the years and most clubs don't have the resources to clean it. He said Dech's Sports-O-Zone machine will be available at Football Manitoba's Super Clinic on April 18-19 at Canad Inns Polo Park for interested groups to try out as a way to make equipment safer for young players.

"You don't want your kid wearing a pair of shoulder pads that have five years of sweat piled up in there -- they stink," said Brown. "I put on the equipment seminars and I emphasize that the equipment should be cleaned, for the main reason of cleanliness but also to extend the life and to inspect it."

Worth about \$16,000, Dech's machine is one of just nine in Canada. The Winnipeg Blue Bombers recently joined a long list of Sports-O-Zone users across North America -- which includes 12 NFL teams and Riddell sports equipment company. The Bombers have purchased their own machine and expect to have it in place for training camp in June.

"We could get our whole team done in four or five cycles, once a week or every two weeks," said Brad Fotty, Bombers equipment manager. "It doesn't matter how hot your water is, without a machine like that, you're probably not getting everything and anything. It takes it one step further and some peace of mind."

Fotty said shared equipment is also a concern with a professional football team, especially during training camp when one set of shoulder pads and a helmet could be worn by four or five different players during a few weeks.

"We could cut (release) a guy in the morning and you might have a guy come in that's the same body type, in the afternoon he's wearing the same gear," he said. "With one of these (Sports-O-Zone), 15 minutes and they're ready to be right back out."

Sports-O-Zone director of sales Mark Eades of Elkhart, Ind. said the Sports-O-Zone technology was invented by former U.S. navy diver Patrick McKenna -- a gas technology specialist -- to treat body armour. The FBI and New York Police Department SWAT use a version called Decon Zone to disinfect and deodorize equipment shared among multiple users.

"Bacteria need moisture, temperature and food to survive. (On equipment) you've got a nice moist warm environment for it to breed and it'll eat the dander or whatever you've got on your equipment to feed itself," Eades said. "We want to keep this bacteria away from our kids."

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Your best defence

The Sports-O-Zone system disinfects and deodorizes sports equipment by using ozone, which naturally occurs in the air around us and is a powerful oxidant. It kills bacteria that can cause deadly staph infections and foul odor.

How it works:

Oxygen is O₂ and ozone is O₃

Oxygen from the air is pulled through the Sports-O-Zone unit's ozone generator. Technology similar to a small lightning strike (Corona Discharge System) produces a third atom of oxygen which creates ozone

Ozone is pumped into the machine's main chamber where it permeates the equipment inside

The ozone disintegrates as it attacks and essentially eats bacteria, viruses and fungus

A sensor inside the chamber measures ozone levels every 20 seconds, unit unlocks when the cycle is complete and ozone is depleted.

Pure oxygen remains and is released back into the air when the unit is opened

What goes in:

Any sports equipment where bacteria can grow -- skates, helmets, gloves, shoulder pads, elbow pads, shin pads, neck guards, chest protectors, cleats, equipment bags

Mascot outfits

Undergarments like jocks and jills

What else:

15-minute cycle

Completely dry process

\$29.95 per cycle, put in as much equipment as will reasonably fit to allow ozone to circulate

Located at Dakota Skate Care Centre, Dakota Community Centre, 1188 Dakota St.
(Mon.-Fri. 4-8 p.m., Sat. 9 a.m.-6 p.m.; Sun. 9 a.m.-5 p.m.)

Team pricing structure works out to \$16 per player; mobile service now available for booking

99.96 per cent kill rate of antibiotic-resistant MRSA after five minutes in the Sports-O-Zone unit documented during independent laboratory studies at Hoosier Microbiology Laboratory in Muncie, Ind.

The ultimate protection for the athlete (in addition to personal hygiene):

After every use, allow equipment to dry -- remove from bags, hang on hooks or equipment trees

Wash equipment to remove dirt and stains

Disinfect equipment in Sports-O-Zone system help prevent infections and reduce odor

See www.freewebs.com/theozoneteam/ or contact: theozoneteam@hotmail.com

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