

Heat and lead a concern for artificial turf fields

By Gabriel Leiner/Daily News staff

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When synthetic turf fields soak up sunlight and reach high temperatures, some area officials and local residents believe there is a danger the fields can release chemicals into the air.

Weston Public Health Director Wendy Diotalevi said she has measured temperatures on the surface of Weston's artificial turf field on Wellesley Street at 122 degrees.

Last fall, Wayland resident Tom Sciacca said he measured a temperature of 142 degrees at the Wayland turf field surface.

Those reports prompted officials like Diotalevi, Franklin Facilities Director Mike D'Angelo and Wayland Health Director Steve Calichman to post warning signs at turf fields or consider running more tests on synthetic fields in their towns to see if chemicals are released when the turf heats.

Diotalevi said the fields can start to release chemicals at about 140 degrees.

"As the sun hits the field, the temperature on the field's surface can get very hot. Hot enough to start off-gassing chemicals," said Diotalevi.

"One of the characteristics of the artificial fields is that they run hot," added D'Angelo. "We've never had any reports of off-gassing but given some of the recent allegations against the fields we will be getting in touch with its designers for more testing."

Calichman said the Wayland Board of Health has already made a request to post signs warning athletes of high temperatures on Wayland's synthetic field.

At temperatures over 120 degrees, Harvard Medical School professor of otology Barbara Fullerton said rubber latex crumbs in the synthetic turf that contain traces of volatile organic compounds could be emitted into the air.

"Everyone is in agreement that there is some level of exposure of athletes to the chemicals that are 'out-gassed' from the rubber crumbs," wrote Fullerton. "What is not known is the amount of exposure with different conditions on the field, such as the amount of sun exposure, level of the sun in the sky, wind speed, moisture in the turf, to mention a few of the physical variables."

Fullerton said exposure to those chemicals limits lung function and increases respiratory problems and rates of asthma.

Sciacca described synthetic fields at those temperatures as a "public health hazard."

D'Angelo expects engineers from Gale Associates, the designers of Franklin High School's synthetic field, to run tests by the end of the summer.

The artificial turf fields in Weston and Wayland were installed at each of the town's high schools last summer.

The fields both lie near wetlands and are now used in every season except winter by field hockey, football, lacrosse and youth and adult soccer teams.

Artificial turf fields can also be found at Holliston High School and Lincoln-Sudbury Regional High School, along with 3,500 other sites across the country.

Two fields in New Jersey were closed this week after state health officials detected what they said were unexpectedly high levels of lead in the synthetic turf and raised fears that athletes could swallow or inhale fibers or dust from the playing surface.

The New Jersey Department of Health and Senior Services said high levels of lead were found in nylon turf fibers. However, the synthetic field in Wayland does not contain those nylon fibers, according to Craig Foreman of the Wayland Boosters Club.

"The materials in New Jersey's fields are not even remotely similar to the Field Turf's fibers in Wayland," said Foreman. "I want to assure everyone that those fields are not the type of field we have at Wayland High School. The Wayland field is the same type of artificial turf (Field Turf) used at Harvard, Yale, Dartmouth, Princeton (and) Gillette Stadium."

Wayland Park & Recreation Director Nancy McShea said the town studied off-gassing on artificial fields for about a year before Wayland's field was installed.

McShea said research led her and other officials to believe there was "no evidence that harmful chemicals would be off-gassed," since the type of turf installed contained no lead or other harmful chemicals.

"The condition of the fields in New Jersey almost makes you question whether the site itself has something to do with the problem," said McShea.

The two fields under investigation in New Jersey are adjacent to a scrap metal plant in Newark.

Holliston Park & Recreation Director Maureen Korson added she has "no concerns yet" about off-gassing at the town's 3-year-old artificial turf field used by the high school's Panther teams, though she was unsure if on-field temperatures have ever been measured.

"The field is not used heavily in the summer and we've yet to have any complaints or notifications about it," said Korson.

Since the Wayland field was installed, McShea said, the town has conducted two drainage tests, both of which indicated no harmful chemicals were being released from the field.

After conducting those tests, the Park & Recreation Commission voted not to post any signs warning of off-gassing at the Wayland artificial turf field.

Diotalevi said she expects the Weston Board of Health to vote by June on whether it will request that coaches monitor temperatures at certain intervals or whether the town should post warning signs of high temperatures on the Weston field.

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