Study: Crumb rubber cancer risk 'at or below 1 in a million'

By Sharon Salyer Monday, May 15, 2017 1:30am | LOCAL NEWS EVERETT

EVERETT — Tests conducted of crumb rubber sports fields in five cities, including the Everett Boys & Girls Club, found that the cancer risk for children playing on the fields was "at or below one in a million."

That finding was part of a new study conducted by Maryland-based Jenkins Environmental Inc.

The company oversaw a nearly \$200,000 project to study the fields' safety, requested by the Cal Ripken, Sr. Foundation in Baltimore.

"We are very confident in the results," Steve Salem, the foundation's chief executive, said in an interview.

"Our role in this was to bring the right people together, to come up with the funding to get this done, and make sure the kids were safe," he said.

The foundation, named after the famous former Baltimore Orioles manager, sponsored the construction of all five fields that were tested.

The Everett ballfield is on the grounds of the Boys & Girls Club at 2316 12th St., near Hawthorne Elementary School. Installation of the artificial turf was completed in 2014. It was paid for by the Ripken foundation, Everett Community College and Snohomish County Parks and Recreation.

The college's softball team plays on the field.

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The four other fields that were tested were in Baltimore, Newport N Virginia, Harrisburg, Pennsylvania, and Hartford, Connecticut. Already have an account? Click here to log in.

The Ripken foundation announced in June 2015 that it would pay for testing its sports fields.

If the tests had found reasons for concern about the safety of the crumb rubber fields, the foundation was prepared to remove the material on all of its fields across the nation, Salem said.

The foundation's decision to test the fields came as concern has grown over the safety of playing on the artificial turf fields. The tiny crumb rubber particles used for fill on the fields are made from ground-up tires. The particles can be accidentally inhaled or come in contact with the skin of players.

Amy Griffin, a University of Washington soccer coach, compiled a list of 53 people who played on the artificial turf and who were later diagnosed with cancer, such as leukemia, non-Hodgkin's and Hodgkin's lymphoma.

One of the cases was that of Austen Everett, who trained with Griffin. Everett was a goalkeeper for Seattle's Bishop Blanchet High School and played on teams at the University of California Santa Barbara and the University of Miami in Florida. She was diagnosed with non-Hodgkins lymphoma as a college junior in 2008. She died four years later when she was 25.

The Edmonds City Council has banned the installation of crumb rubber on any publicly owned athletic field until Feb. 28.

The Maryland firm's study is the second this year that concluded that crumb rubber sports fields are safe for children to play on.

In January, a review by the state Department of Health found no evidence that playing on crumb rubber sports fields caused soccer players to get cancer.

A national investigation of the possible health effects of playing on crumb rubber fields is now under way, conducted by the federal Environmental Protection Agency, the Centers for Disease Control and Prevention and the Consumer Product Safety Commission.

Michele Twilley, an environmental scientist who worked on the Ripken foundation study, acknowledged that its conclusion on the apparent safety of playing on crumb rubber fields will likely be controversial.

"I kept looking at it as, 'How would I feel about my family playing on it?" she said. "We used the tools of the trade that we have available to answer the question: Is it safe?"

The study began in August 2015. Tests were conducted on crumb rubber from the sports fields, the soil beneath them, and the air around them.

Overall, 92 chemicals, compounds and heavy metals were detected. Each was measured against EPA safety standards.

The study found that concentrations of lead, cadmium, mercury and two other contaminants in the crumb rubber samples were below Consumer Product Safety Commission limits for children's products.

The tests were conducted between March 24 and May 10 last year. The air sampling included some days when field temperatures "were hitting 100-degrees plus," to measure for chemicals that easily vaporize, said Michael Cirri, president of the Maryland firm which wrote the study.

In concluding children's risk of getting cancer for playing on the fields was at or below one in a million, the report assumed that a child would be playing on the artificial turf fields for one to two hours per day, five days a week, 50 weeks a year.

"We stand behind our conclusion and have the data to stand behind our conclusion," Cirri said. "The analysis in the report is extensive."

Approximately four out of 10 people will be diagnosed with cancer sometime in their lifetime, the study notes. Leukemia, one of the cancers which has affected some soccer players, is commonly diagnosed before the age of 20, it adds.

The Ripken foundation plans to continue using crumb rubber in the 25 new fields now being planned nationally, unless there are local bans on the product, Salem said.

A plan to randomly sample the crumb rubber before it's applied to any of those fields is being developed. "We want to make sure the batches coming in meet Consumer Product Safety Commission standards" as well as look at the chemical profiles, Twilley said.

The first synthetic turf fields were installed in the 1960s. Currently, there are up to 13,000 synthetic turf sports fields nationally, with 1,200 to 1,500 new installations each year, according to the Environmental Protection Agency.

Local and state health officials say that precautions that have been advised in the past when playing on crumb rubber fields should continue to minimize potential exposure to a field's chemicals.

They include: always washing hands after playing on the field and before eating; taking off shoes, sports equipment and uniforms outside or in the garage to prevent tracking crumb rubber into the house; showering after play; quickly cleaning any cuts or scrapes to help prevent infection and not swallowing any bits of crumb rubber they come into contact with during play.

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