

City of Alexandria, Virginia

MEMORANDUM

DATE: SEPTEMBER 25, 2015

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: MARK B. JINKS, CITY MANAGER 

SUBJECT: ATHLETIC FIELD INFILL MATERIAL

This memorandum provides information regarding the infill material used in synthetic turf fields in the City of Alexandria. The attached article from the Wednesday, September 23rd edition of the Washington Post newspaper repeated concerns from some parties about links between crumb rubber infill material and cancer. This article also points out that “researchers have found no definitive link between crumb rubber infill material and any health problems.”

Between the City of Alexandria and Alexandria City Public Schools there are nine athletic fields, and 17 playgrounds using crumb rubber infill material. The new AlexRenew field which is set to be available in October, also uses crumb rubber infill material. Over the past several years, the Department of Recreation, Parks and Cultural Activities (RPCA), has received one or two calls annually with questions about possible health concerns of crumb rubber infill material. This year, groups of local residents in Loudon, Fairfax, and Montgomery Counties worked on petitions to not have new fields use crumb rubber infill. The Director of RPCA requested support from the Alexandria Health Department (AHD) to develop a local advisory on the issue of infill material. Similar steps were also taken in Fairfax and Loudon Counties.

The Alexandria Health Department conducted extensive research of the literature surrounding crumb rubber infill material. Results from a report “*Alexandria Health Department, Crumb Rubber Review*” issued to the Health Advisory Commission dated September 16, 2015 states “the Alexandria Health Department (AHD) has found no evidence to date that the chemicals present in the City of Alexandria’s synthetic turf playing fields present a health concern.” AHD requests that additional state and federal supported studies be conducted. The current summary is consistent with previous work done by state level health and environmental departments in New York, Connecticut, and California. It is also consistent with the current findings of the Fairfax County Health Department.

Attachments: Washington Post Article – September 23, 2015
Alexandria Health Department Report

cc: Stephen A. Haering, Director, AHD
James Spengler, Director, RPCA



ALEXANDRIA HEALTH DEPARTMENT

Main Office

4480 King Street
Alexandria, VA 22302
Phone: 703.746.4996
FAX: 703.746.4938

www.alexandriava.gov/health

Stephen A. Haering, MD, MPH, FACPM
Health Director

Alexandria Health Department Crumb Rubber Review September 16, 2015

Summary

Alexandria Health Department (AHD) has found no evidence to date that the chemicals present in the City of Alexandria's synthetic turf playing fields present a health concern.

AHD has requested that additional, state and federal supported studies be conducted. AHD will continue to monitor the scientific literature that may refute or confirm these findings.

Background

Synthetic turf playing fields (athletic fields and playgrounds) have been growing in popularity over the last several decades, as an alternative to natural grass and mulch in playing fields. Since the late 1990s, a newer generation of synthetic turf fields has utilized "crumb rubber" infill between polyurethane grass blades to provide a safer, more "grass-like" playing surface. These fields use approximately 100 tons of rubber per field, so the use of crumb rubber has also enabled the recycling of tires that may otherwise have ended up in landfills.

Over the past several years, concerns have been raised in communities across the nation that crumb-rubber synthetic turf fields may pose a health risk to children and adults who play on them. Regionally, Montgomery County, Maryland, decided in January 2015 to pursue alternatives to crumb rubber for future installations; they based this decision on community concerns and recognized that there would be significant additional cost. In June 2015, Fairfax County Health Department, Virginia completed an extensive review of available scientific literature; the County decided to continue using crumb rubber infill unless new scientific data supports the need to reconsider.

The City of Alexandria has nine athletic fields and 17 playgrounds utilizing crumb rubber infill. The first playing fields were installed in Alexandria in 2007, while the first playground surface was installed in 2004. Constituents have expressed concerns regarding the metals and chemicals present in the crumb rubber infill, the possible associated cancer risks, and anecdotal reports highlighted by NBC News that some youth exposed to synthetic turf playing fields, in other parts of the country, may have developed cancer because of their exposures.

Chemicals in crumb rubber

While it has been clearly documented that chemicals and metals, such as zinc and lead, are present in the crumb rubber infill material,¹⁻⁵ there is no evidence that participants playing on outdoor fields are exposed to these chemicals in such a manner that they pose harm.

The exposure studies to date have been small with each sampling no more than a few fields or the exposures of a few players at a time. Many of the chemicals known to be in crumb rubber have not been detected outside of the infill material,⁶⁻¹¹ suggesting that the chemicals do not pose a risk to humans. Very low concentrations of some chemicals have been documented to be released by the rubber in laboratory and field settings.³⁻²¹ The levels of chemicals measured in field settings have generally been indistinguishable from typical outdoor air pollution or exposures to players from other sources, like food and personal hygiene products.^{7,11,14,17-20} Conservative risk assessments, calculated using the highest concentrations of chemicals found to be released from the crumb rubber, have shown no or *de minimis* (i.e. negligible) risk of human health effects after exposures to the chemicals released from the crumb rubber.^{6-8,10-18,22}

There is no lead present in the synthetic turf fields in the City of Alexandria, so this particular exposure is not of concern. Zinc present in the runoff from synthetic fields has generally not been expected to cause human health effects.^{7,9,13}

Alternatives

The alternatives to crumb rubber infill surfaces, namely, natural grass and “natural” infill are not without their own uncertainty. The application of pesticides and fertilizers to grass fields to keep them in playing condition presents a potential chemical exposure to players. “Natural” infill alternatives are, to the Health Department’s knowledge, completely untested. Thus, the unknown health effects from an alternative could be potentially greater than from crumb rubber.

Conclusion

In summary, following a review of the numerous, though individually limited, exposure investigations performed to date, and the material information available for the City of Alexandria fields, there is currently no evidence that the chemicals present in the City of Alexandria’s synthetic turf playing fields present a health concern.

There have been no large scale studies of the possible exposures or adverse health effects, including cancer, among humans exposed to synthetic turf playing fields. To address this existing scientific uncertainty, the Alexandria Health Department, in conjunction with other Northern Virginia health departments, has requested assistance from state and national public health colleagues. The Virginia Department of Health is conducting a study of the Virginia Cancer Registry to determine whether cancer rates in children and young adults have changed since the introduction of synthetic turf playing fields to the Northern Virginia region; if this study finds any differences in rates, further studies will be performed to attempt to determine whether any changes in rates can be linked to specific exposures. The Northern Virginia health departments have also requested that Virginia Department of Health (in conjunction with the Centers for Disease Control and Prevention) conduct biomonitoring studies to determine whether chemical exposure is elevated among users of synthetic turf playing fields and, if so, whether the levels detected pose harm.

Alexandria Health Department will continue to monitor the scientific literature for new research that confirms or refutes the findings to date.

References Cited

1. Waters BF. Cryogenically Recycled SBR Crumb Rubber (MSDS). *FieldTurf Tarkett*.
2. Sadiktsis I, Bergvall C, Johansson C and Westerholm R. Automobile Tires - A Potential Source of Highly Carcinogenic Dibenzopyrenes to the Environment. *Environ Sci Technol*. 2012;46:3326-3334.
3. Llompart M, Sanchez-Prado L, Lamas JP, Garcia-Jares C, Roca E, Dagnac T. Hazardous organic chemicals in rubber recycled tire playgrounds and pavers. *Chemosphere*. 2013;90:423-431.
4. Celeiro M, Pablo Lamas J, Garcia-Jares C, Dagnac T, Ramos L, Llompart M. Investigation of PAH and other hazardous contaminant occurrence in recycled tyre rubber surfaces. Case-study: restaurant playground in an indoor shopping center. *Int J Environ Anal Chem*. 94(12):1264-1271.
5. Kim S, Yang J-Y, Kim H-H, Yeo I-Y, Shin D-C, Lim Y-W. Health Risk Assessment of Lead Exposure by Particle Sizes in Crumb Rubber on Artificial Turf Considering Bioavailability. *Environ Health Toxicol*. 2012;27:e2012005.
6. Vidair C, Haas R, Schlag R. Evaluation of Health Effects of Recycled Waste Tires in Playground and Track Products. Office of Environmental Health Hazard Assessment of California Environmental Protection Agency. Sacramento, CA. 2007.
7. Lim L, Walker R. An assessment of chemical leaching, releases to air and temperature at crumb-rubber infilled synthetic turf fields. New York State Department of Environmental Conservation. 2009.
8. Zhang J, Han I-K, Zhang L, Crain W. Hazardous chemicals in synthetic turf materials and their bioaccessibility in digestive fluids. *J Expo Sci Environ Epidemiol*. 2008;18:600-607.
9. Li X, Berger W, Musante C, Mattina M. Characterization of substances released from crumb rubber material used on artificial turf fields. *Chemosphere*. 2010;80:279-285.
10. Pavilonis BT, Weisel CP, Buckley B, and Lioy PJ. Bioaccessibility and Risk of Exposure to Metals and SVOCs in Artificial Turf Field Fill Materials and Fibers. *Risk Anal*. 2013; DOI: 10.1111/risa.12081.
11. Menichini E, Abate V, Attias L, et al. Artificial-turf playing fields: Contents of metals, PAHs, PCBs, PCDDs and PCDFs, inhalation exposure to PAHs and related preliminary risk assessment. *Sci Total Environ*. 2011;209:4950-4957.
12. Birkholz DA, Belton KL, Guidotti TL. Toxicological Evaluation for the Hazard Assessment of Tire Crumb for Use in Playgrounds. *J Air & Waste Manage Assoc*. 2003;53:903-907.
13. Norwegian Institute of Public Health. Synthetic Turf Pitches-An Assessment of Health Risks for Football. Oslo, Norway, 2006.
14. National Exposure Research Laboratory. A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds. Environmental Protection Agency. 2009.
15. Vidair C. Safety Study of Artificial Turf Containing Crumb Rubber Infill Made From Recycled Tires: Measurements of Chemicals and Particulates in the Air, Bacteria in the Turf, and Skin Abrasions Caused by Contact with the Surface. Department of Resources Recycling and Recovery. Sacramento, CA. 2010.
16. Shalat SL. Final report: An evaluation of potential exposures to lead and other metals as the result of aerosolized particulate matter from artificial turf playing fields. NJ Department of Environmental Protection. 2011.

17. Ginsberg G, Toal B. Human Health Risk Assessment of Artificial Turf Fields Based Upon Results from Five Fields in Connecticut. Connecticut Department of Public Health. Hartford, CT. 2010.
18. Ginsberg G, Toal B, Simcox N, et al. Human Health Risk Assessment of Synthetic Turf Fields Based Upon Investigation of Five Fields in Connecticut. *J Toxicol Environ Health A*. 2011;74(17):1150-1174.
19. Simcox NJ, Bracker A, Ginsberg G, et al. Synthetic Turf Field Investigation in Connecticut. *J Toxicol Environ Health A*. 2011;74(17):1133-1149.
20. van Rooij JG, Jongeneelen FJ. Hydroxypyrene in urine of football players after playing on artificial sports field with tire crumb infill. *Int Arch Occup Environ Health*. 2010;83:105-110.
21. U.S. Consumer Product Safety Commission. CPSC Staff Analysis and Assessment of Synthetic Turf "Grass Blades". 2008.
22. Synthetic Playfields Task Force. Findings and Department Recommendations. San Francisco Recreation and Park Department. San Francisco, CA. 2008.

Additional References Reviewed

Agency for Toxic Substances and Disease Registry. Public Health Statement: Lead. Department of Health and Human Services. 2007.

Blot WJ, Tarone RE. Doll and Peto's Quantitative Estimates of Cancer Risks: Holding Generally True for 35 Years. *J Natl Cancer Inst*. 2015;107(4):d4v044.

Brown, DR. *Artificial Turf*. Environment and Human Health, Inc. North Haven, CT, 2007.

Centers for Disease Control and Prevention. CDC Health Advisory #00275: Potential Exposure to Lead in Artificial Turf. Department of Health and Human Services. 2008.

Centers for Disease Control and Prevention. Fourth National Report on Human Exposure to Environmental Chemicals. Department of Health and Human Services. 2009.

Cheng H, Hu Y, Reinhard M. Environmental and Health Impacts of Artificial Turf: A Review. *Environ Sci Technol*. 2013;48:2114-2129.

Chien Y-C, Ton S, Lee M-H, Chia T, Shu H-Y, Wu Y-S. Assessment of occupational hazards in scrap-tired shredding facilities. *Sci Total Environ*. 2003;309:35-46.

Claudio L. Synthetic Turf: Health Debate Takes Root. *Environmental Health Perspectives*. 2008;116(3):A116-A122.

Day N, Breslow N. *Statistical Methods in Cancer Research: The Design and Analysis of Cohort Studies (Volume II)*. Oxford University Press, Oxford. 1988.

Denly E, Rutkowski K, Vetrano KM. A Review of the Potential Health and Safety Risks from Synthetic Turf Fields Containing Crumb Rubber Infill. New York City Department of Health and Mental Hygiene. New York City, NY. 2008.

Environment and Human Health, Inc. New Study - Many carcinogens found in Yale analysis of crumb rubber infill and playground mulch surfacing. June 11 2015. Available: http://www.ehhi.org/turf/new_study_jun2015.shtml. Accessed July 15 2015.

Environment and Human Health, Inc. The Cancer List Keeps Growing Among Athletes on Synthetic Turf. *Synthetic Turf*. June 16 2015. Available: http://www.ehhi.org/turf/turf_cancers.shtml. Accessed August 13 2015.

Environmental Protection Agency Volatile Organic Compounds (VOCs): Technical Overview. November 8 2012. Available: <http://www.epa.gov/iaq/voc2.html>. Accessed August 13 2015.

Fiori JM, Meyerhoff RD. Extending the Threshold of Regulation Concept: De Minimis Limits for Carcinogens and Mutagens. *Regul Toxicol Pharmacol*. 2002;35:209-216.

Gilden R, Friedmann E, Sattler B, Squibb K, McPhaul K. Potential Health Effects Related to Pesticide Use on Athletic Fields. *Public Health Nurs*. 2012;29(3):198-207.

Ginsberg G, Toal B, Kurland T. Benzothiazole Toxicity Assessment in Support of Synthetic Turf Field Human Health Risk Assessment. *J Toxicol Environ Health A*. 2011;74(17):1175-1183.

Goldstein BD. The Precautionary Principle Also Applies to Public Health Actions. *Am J Public Health*. 2001;91(9):1358-1361.

Goodson WH, Lowe L, Carpenter DO, et al. Assessing the carcinogenic potential of low-dose exposures to chemical mixtures in the environment: the challenge ahead. *Carcinogenesis*. 2015;36:S365-S296.

Greenemeier L. Study says carbon nanotubes as dangerous as asbestos. *Scientific American*. May 20 2008. Available: <http://www.scientificamerican.com/article/carbon-nanotube-danger/>. Accessed August 13 2015.

IARC Working Group. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 92: Some Non-heterocyclic Polycyclic Aromatic Hydrocarbons and Some Related Exposures. International Agency for Research on Cancer. Lyon, France. 2010.

IARC Working Group. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 93: Carbon Black, Titanium Dioxide, and Talc. International Agency for Research on Cancer. Lyon, France. 2010.

IARC Working Group. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 100-F: Chemical Agents and Related Occupations. International Agency for Research on Cancer. Lyon, France. 2012.

Lioy P, Weisel C. Artificial turf: safe or out on ball fields around the world. *J Expo Sci Environ Epidemiol*. 2008;18:533-534.

Long EL. Memorandum: Synthetic Turf Fields. *County of Fairfax, VA*. June 17 2015. Available <http://www.fairfaxcounty.gov/parks/plandev/downloads/synthetic-turf-health-studies-memo.pdf>. Accessed September 9 2015.

McGuire E. Memorandum: Resolution to Support Use of Plant-Derived Materials for Infill in Artificial Turf. January 28, 2015. *Montgomery County, MD*. Available http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2015/150129/20150129_TEED1.pdf. Accessed September 9, 2015.

National Institute for Occupational Safety and Health. NIOSH Current Intelligence Bulletin 65: Carbon Nanotubes and Nanofibers. Department of Health and Human Services. 2013.

National Institutes for Occupational Safety and Health. NIOSH Pocket Guide to Chemical Hazards: Carbon Black. Department of Health and Human Services. February 13, 2015. Available: <http://www.cdc.gov/niosh/npg/npgd0102.html>. Accessed September 2, 2015.

National Institutes for Occupational Safety and Health. NIOSH Special Hazard Review 93-106. Department of Health and Human Services. September 1993. Available <http://www.cdc.gov/niosh/docs/93-106/>. Accessed September 2, 2015.

New Jersey Department of Health and Senior Services Lead and Artificial Turf Fact Sheet. Trenton, NJ, 2008.

Novak K. Exposure to crumb rubber nanoparticles could lead to serious health issues: researchers. *Turf & Recreation*. Available: http://www.turfandrec.com/index.php?option=com_content&task=view&id=2986. Accessed August 13, 2015.

Rappleye H. How safe is the artificial turf your child plays on? *NBC News Investigations*. October 8, 2014. Available: <http://www.nbcnews.com/news/investigations/how-safe-artificial-turf-your-child-plays-n220166>. Accessed July 15 2015.

Simon R. Review of the Impacts of Crumb Rubber in Artificial Turf Applications. *University of California Berkeley College of Engineering*. 2011.

Skupinska K, Misiewicz I, Kasprzycka-Guttman T. Polycyclic Aromatic Hydrocarbons: Physicochemical properties, environmental appearance and impact on living organisms. *Acta Poloniae Pharmaceutica*. 2004;61:233-240.

U.S. National Library of Medicine. Zinc. *Medline Plus*. February 14 2015. Available: <http://www.nlm.nih.gov/medlineplus/druginfo/natural/982.html>. Accessed August 15 2015.

Ward E, DeSantis C, Robbins A, Kohler B, Jemal A. Childhood and Adolescent Cancer Statistics, 2014. *CA Cancer J Clin*. 2014;64(2):83-103.

Wik A, Dave G. Occurrence and effects of tire wear particles in the environment - A critical review and an initial risk assessment. *Environ Pollut*. 2009;157:1-11.

NOT NOW 

Get the Local Headlines Newsletter

Free daily updates delivered just for you.

Local

Artificial turf gets a closer look after report raises safety concerns

By **Caitlin Gibson** September 23

For many athletes who play on artificial turf, the tiny granules of rubber that pad the field are familiar and ubiquitous. The black specks often get trapped in folds of clothing, carried home in shoes or embedded in scrapes and under fingernails.

Crumb rubber infill — the most common material used in artificial turf fields across the country — is intended to improve safety and create a more accessible, easily maintained playing field. But after recent public concerns about possible health risks from exposure to crumb rubber, several local jurisdictions are searching for clearer answers about its potential dangers and considering alternatives.

The issue is a modern one.

Synthetic turf with an “infill” system — involving a layer of tiny granules of rubber, sand, or other material between the turf fibers and a backing layer — was introduced in the late 1990s and has since become a popular alternative to natural turf fields, according to the Synthetic Turf Council. More than 11,000 synthetic turf athletic fields are in use at schools, colleges, parks and professional stadiums across the country, the council said. In the Washington area, where public school systems started [transitioning to artificial turf](#) in the mid- to late 2000s, crumb rubber is the most common infill choice. Organic alternatives are generally more expensive.

Artificial turf has often been considered preferable to natural grass because synthetic fields are easier to maintain, more durable and can be used in a variety of weather conditions. The padded surface has also been shown to reduce the likelihood of impact injuries. Some athletes, however, including numerous professional soccer players, have complained about the way artificial turf affects the game.

“There is no player in the world, male or female, who would prefer to play on artificial grass,” U.S. women’s soccer star [Abby Wambach has said](#).

[Team USA’s Sydney Leroux says playing on artificial turf is like running on cement]

Public concern grew last fall after an [NBC investigation](#) into the potential risks for athletes exposed to crumb rubber, which is made from pulverized car tires and can contain potentially dangerous chemicals and carcinogens. The NBC report, which emphasized that researchers have found no definitive link between crumb rubber and any health problems, included a soccer coach from Seattle who found that dozens of high school athletes — particularly soccer goalies — had developed cancer after exposure to crumb rubber.

[Is there a link between artificial turf and cancer in soccer goalies?]

Although the soccer coach’s evidence was anecdotal, the story reverberated across the country, including in the Washington area.

SPONSOR-GENERATED CONTENT

Find your park in Frederick County, Md.

By Visit Frederick

Explore area history and nature just up the road from D.C.

READ MORE

Responding to the concerns of parents and residents, the Montgomery County Council [resolved](#) this year to support the use of plant-based infill, which is often a mix of coconut fiber, cork or rice husks, over crumb rubber. In the District, officials established an Artificial Turf Task Force to examine alternative materials to fill turf fields. In Loudoun, which has 10 turf fields with crumb rubber infill and five more under construction, parents launched a [Change.org petition](#) to urge the school system to abandon the material.

[Loudoun officials address concerns regarding synthetic turf fields]

The Loudoun petition, asking school officials to ban the use of crumb rubber on all new and existing turf fields, received more than 900 signatures, as well as impassioned personal pleas.

“My daughter loves to play goalie,” Sara Tyndall of Chantilly wrote on the petition. “We were on turf twice this week. . . . I would rest easier knowing that she is diving into something safe. Please protect our kids!”

Dawn McKenna of Chantilly wrote: “My entire family plays lacrosse on these fields multiple days a week. This stuff is all over my house after every practice and game.”

Loudoun school officials replied with a statement noting the findings of previous safety reviews by the U.S. [Environmental Protection Agency](#), the Centers for Disease Control and Prevention, and state agencies in California, Connecticut, New Jersey and New York, none of which found conclusive evidence that crumb rubber posed a risk to the health of athletes who played on it.

That same information is also touted by the Synthetic Turf Council, which issued a statement this year to emphasize that “hundreds of tests and hundreds of pages of reports” have found no clear link between crumb rubber and health problems.

“All of that research provides confidence that there is no elevated human health or environmental risk from the ingestion, inhalation or dermal contact with synthetic turf,” the statement said.

But Loudoun Health Department Director David Goodfriend told a county committee in the summer that more comprehensive research is needed. As a result, health officials in Loudoun and other Northern Virginia jurisdictions are focused on gathering more information.

“As a region, we’re following up on it,” Goodfriend said. “My daughter plays soccer on an artificial crumb rubber field. If I thought there was any risk to the children, I would want to make sure that that information went out right away. If there is a danger, we want to know.”

Goodfriend said that officials have contacted the Virginia Health Department to see whether the state cancer registry might reflect any possible association between artificial turf and a spike in pediatric cancer cases in the area.

“We want to get a sense of whether childhood cancers are increasing . . . and whether incidence rates have changed over time since artificial turf fields have become more common in Northern Virginia,” he said. “Our hope is that we’ll get some information relatively soon.”

Officials from Fairfax County, home to more than 80 turf fields with crumb rubber infill, have also contacted officials in the Seattle area, where the NBC investigation originated. But officials in Washington state said they had not completed their report and could not yet offer any data, said Tony Castrilli, Fairfax County director of public affairs.

In a July memorandum to the Fairfax Board of Supervisors, County Executive Edward Long Jr. emphasized that county officials would continue the “extensive effort” of requesting additional studies and reviewing local cancer rates.

Meanwhile, Castrilli said, the artificial turf fields in Fairfax will stay as they are.

“Until peer-reviewed published scientific data supports the need to change the infill product, we will continue to use crumb rubber as infill for synthetic turf fields,” he told The Washington Post in an e-mail.

Montgomery County has taken a different approach, with county staff members encouraging the use of organic infill, which would “offer the opportunity to allay ongoing community concerns,” a county staff analysis said.

About a half-dozen Montgomery public schools, as well as several private schools and county fields, use crumb rubber. But the Montgomery council and the county school board have asked that all future projects use an alternative infill, Montgomery school spokesman Dana Tofig said.

“As new fields are built, and as we replace existing fields, they will be transitioned over” to a new material, he added.

The recent attention to the issue has drawn diverse opinions from parents, he said, including some who have emphasized the benefits of artificial turf fields.

“We’ve heard from some parents who have concerns about the use of artificial turf, and we also hear from parents who are big advocates for it,” he said. “We’re a big county, and we hear a range of opinions.”

Artificial turf fields tend to get more regular use, not only from the schools but from the community, and they are less expensive to maintain, Tofig said. But despite the benefits, he said, “student safety is the number one concern.”

That sentiment was echoed in the District, where the Artificial Turf Task Force will make recommendations to replace crumb rubber infill, which is now used in about three dozen fields at schools and parks, said Darrell Pressley, a spokesman with the Department of General Services.

Pressley added that the task force is finalizing its report, which will then be evaluated by the D.C. government. Meanwhile, crumb rubber infill is no longer used on newly constructed fields, and “there are no plans to use crumb rubber infill on any future artificial turf projects,” he said.

Goodfriend said that health officials in Loudoun will present their findings to a joint School Board and Board of Supervisors committee in December — or sooner, if they come across information that might raise additional concerns. So far, they haven’t found anything, he said, but officials are still waiting for answers to lingering questions.

“Is there something happening in Washington state? Are we seeing something happening in this area?” he said. “Both are important questions to answer, so I can tell parents, and I can tell my wife, that it’s perfectly safe for our daughters and sons to be playing on those fields.”

More coverage:

[Team USA’s Sydney Leroux says playing the World Cup on artificial turf is like running on cement](#)

[Is there a link between artificial turf and cancer in soccer goalies?](#)

[Loudoun officials address concerns regarding synthetic turf fields](#)

Caitlin Gibson is a local news and features writer for The Washington Post.
