

FAQs: Synthetic Turf Fields in Arlington

What is synthetic turf? Are there synthetic turf fields in Arlington?

- Synthetic turf is a grass-like surface material made of synthetic fibers that replicates natural grass. It is commonly used in athletic fields and playgrounds around the country.
- Arlington County has 17 synthetic turf fields. None of these fields use styrene butadiene rubber (SBR) made from recycled tires. Fourteen (14) of these fields use ethylene propylene diene monomer (EPDM) as the infill. EPDM is a synthetic rubber manufactured for the purpose of synthetic turf infill and has a high resistance to breakdown by ultraviolet light and is brand new material, not made from recycled tires. The other three fields use an organic infill. These fields can be found at the stadium field at Washington-Liberty High School and the two fields at Williamsburg Middle School. The County continuously monitors new products and changes to infill made in the industry and anticipates utilizing organic infill in its upcoming projects.
- Although the organic infill is still in a testing phase, the early response from users and maintenance personnel is extremely positive and plans are to use organic infills in future field replacements.
- Arlington County has three playgrounds with synthetic turf surfacing; none of these turfs use an infill.

Why does Arlington use synthetic turf?

- Synthetic turf fields have many advantages including:
 - A uniform and level playing surface that can be used all year round offering a high quality of play.
 - No need to be mowed, watered, or fertilized.
 - Are designed to manage stormwater.
 - Enhanced accessibility to more teams and greater play due to the increased play time and all-weather surfacing.
 - Lower long-term maintenance costs.

What concerns have been raised about synthetic turf fields, and what steps is Arlington County taking to address them?

- Quality of Materials
 - Arlington County continues to monitor studies of synthetic turf infills and seek guidance from national public health agencies on selection of infills and potential health risks.

- On April 16, 2024, the Environmental Protection Agency (EPA) released a multi-agency research report on synthetic turf and did not note any significant differences between synthetic fields and natural grass fields.
- The EPA report also cited studies from the Netherlands National Institute for Health and Environment, the European Chemicals Agency, and the National Toxicology Program where those studies found “risk to health being virtually negligible, no reason to advise against playing on synthetic turf fields, and no evidence of toxicity found,” respectively.
- **Surface Temperature**
 - Some synthetic turf surfaces can give off more heat. Fields with organic infills will have field surface temperatures that are much lower and lessen the heat island effect than those that utilize rubber infills.
 - Initial temperature readings of the new organic infill material used at three Arlington County turf fields have shown reduced surface temperatures (up to 30 degrees) as compared to EPDM.
 - DPR closely monitors temperatures and heat indexes, and regularly cancels outdoor programming if conditions are too hot for safe play. For example, in the summer of 2025 Arlington County fields were closed for programming for 9 days as of August 1, 2025.
- **Potential for Injury**
 - To reduce the likelihood of head injuries, the County tests the safety of material used for our synthetic turf fields through the GMAX test (the standard test method for impact reduction of a playing surface, systems, and materials). A higher GMAX rating means that the surface is harder and could potentially be more dangerous for athletes.
 - All synthetic turf fields in Arlington maintain an appropriate GMAX rating as determined by the American Society for Testing Materials.
- **Overall Health Outcomes**
 - The Northern Virginia Health Directors and the Virginia Department of Health (VDH) have found no evidence of increased pediatric cancer incidence in Northern Virginia compared to the entire Commonwealth of Virginia and to the United States from playing on synthetic turf.

What happens to old synthetic turf fields when the turf is replaced?

- While many communities allow old synthetic turf materials to be taken to local landfills, Arlington County requires contractors to recycle or reuse the old materials. Contractors are explicitly forbidden to take the old materials to a landfill.
- At the end of the project, contractors are required to provide proof that the synthetic turf materials were recycled or reused.
- As Arlington County continues to use organic infill materials, this material can be used as landscape mulch. The material is 100% organic, biodegradable and good for plants.

How can I keep myself or my child healthy while playing on synthetic turf?

Keep yourself healthy by taking the same steps you use when playing on natural grass:

- Stay hydrated, especially in the summer. Rest if you feel dizzy or too warm and remember to take breaks from playing.
- Clean any scrapes as quickly as possible. Cover any scrapes, burns, or open wounds before playing.
- Wash your hands with soap and warm water for 20 seconds after playing on synthetic turf. Showering after play is also recommended.
- Do not eat while on the synthetic turf.
- Wear athletic shoes while playing on the synthetic turf. Do not play in bare feet.

Where can I go for additional information?

Contact Arlington County Department of Parks & Recreation at dpr@arlingtonva.us or visit the websites below.

References

1. United States Environmental Protection Agency Office of Research and Development (2024). Available at: <https://www.epa.gov/chemical-research/tire-crumb-exposure-characterization-report-volumes-1-and-2>
2. Birkholz et al. (2003). Toxicological Evaluation for the Hazard Assessment of Tire Crumb for Use in Public Playgrounds. Available at: <http://www.tandfonline.com/doi/abs/10.1080/10473289.2003.10466221?src=recsys#.VKK4WsCB>
3. Bjørneboe, J. et al. (2010). Risk of injury on third-generation artificial turf in Norwegian professional football. Available at: <http://bjsm.bmj.com/content/44/11/794.abstract?sid=b53cca15-5434-495d-aff8-17ea221cede8>
4. California Office of Environmental Health Hazard Assessment, Pesticide and Environmental Toxicology Branch (2010). 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. Available at: http://c.ymcdn.com/sites/www.syntheticurfCouncil.org/resource/resmgr/docs/ca_oehha_safety_study-vocs_a.pdf
5. Connecticut Department of Health, Environmental and Occupational Health Assessment Program (2010). Human Health Risk Assessment of Artificial Turf Fields Based Upon Results from Five Fields in Connecticut. Available at: http://www.ct.gov/deep/lib/deep/artificialturf/dph_artificial_turf_report.pdf
6. New York State Department of Environmental Conservation and New York State Department of Health (2009). An assessment of chemical leaching, releases to air and temperature at crumb-rubber infilled synthetic turf fields. Available at: http://www.dec.ny.gov/docs/materials_minerals_pdf/crumbrubfr.pdf
7. Norwegian Institute of Public Health and the Radium Hospital (2006). Artificial turf pitches – an assessment of the health risks for football players. Available at: <http://www.iss.de/conferences/Dresden%202006/Technical/FHI%20Engelsk.pdf>
8. Ruffino et al. (2013). Environmental-sanitary risk analysis procedure applied to artificial turf sports fields. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23329128>
9. Steffen et al. (2007). Risk of injury on artificial turf and natural grass in young female football players. Available at:

<http://bjsm.bmj.com/content/41/suppl1/i33.abstract?sid=f489440c-9455-4157-9e3a-a3b0a264469e>

10. United States Environmental Protection Agency Office of Research and Development (2009). A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds. Available at: http://www.epa.gov/nerl/download_files/documents/tire_crumbs.pdf
11. United States Environmental Protection Agency Office of Research and Development (2013). The Use of Recycled Tire Materials on Playgrounds & Artificial Turf Fields. Available at: http://www.epa.gov/nerl/features/tire_crumbs.html
12. Washington State Department of Health (2016). Investigation of Reported Cancer among Soccer Players in Washington State. Available at: <http://www.doh.wa.gov/CommunityandEnvironment/Schools/EnvironmentalHealth/syntheticTurf>
13. USAToday (2016). Dutch study: Synthetic fields with rubber crumbs are safe. Available at: <http://www.usatoday.com/story/sports/soccer/2016/12/20/dutch-study-synthetic-fields-with-rubber-crumbs-aresafe/95644958/>
14. United States Environmental Protection Agency (2016). Federal Research on Recycled Tire Crumb Used on Playing Fields. Available at: <https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumb-used-playing-fields>