

## FACT SHEET

### **Poisoned while playing: Stop FDR Park from installing Artificial (Synthetic) and/or So-Called PFAS-Free Turf**

FDR Park in South Philadelphia is undergoing a multi-year, multi-phase, \$250+ million redesign. As part of this plan, athletic fields for youth and adults are proposed. Unfortunately, the proposed plan wants to use artificial (synthetic) and or allegedly turf free of “forever chemicals” instead of natural grass, creating a significant health hazard to the youth and adults that use the fields, to the people who maintain these fields, to the community and ultimately all Philadelphians. We oppose the use of artificial turf for these fields because of their health hazards and request a revision to the plan that only natural grass playing fields be installed.

#### **What is artificial turf?**

Artificial turf is a synthetic product that is manufactured commercially in a variety of different ways. Depending on the industry the turf will contain plastic (nylon, polypropylene, or polyethylene), infill made from recycled tires (“crumb rubber”) or similar untested plastic materials; a drainage layer; and other padding layers. It degrades over time needing replacement periodically and will need to be disposed of at the end of its life. The “recycling” of synthetic turf has been shown to be problematic due to a myriad of hazardous chemicals often exceeding the established limits. The European Union has taken substantial steps to limit the fields’ chemical components to which the public and environment are exposed.

#### **Why is artificial turf a health hazard?**

While the focus has been on per- and polyfluoroalkyl substances (PFAS), below is an outline of all the health hazards associated with almost any form of this product. Furthermore, no synthetic turf is PFAS-free or “green” despite such claims. PFAS are a class of chemicals with thousands of substances and when industry touts PFAS-free a detailed review of the fine print is in order to find out which substances are specifically named. Communities like Portsmouth, NH have found out the hard way. Of the 30 baseball fields, only five use artificial turf and World Cup games are played on natural grass. The carcinogenicity of this material has led to questions about the six Phillies players who died of the same type of brain cancer.

- **High Heat on the field:** Artificial turf is always hotter than natural grass, with documented temperatures over 200°F on a 98°F day. With climate change, Philadelphia’s weather will be hotter and wetter, increasing the risks of skin burns, dermal absorption of chemicals present, and release of inhaled toxins as the crumb rubber breaks down and gets smaller.
- **Toxic chemicals:** A large list of chemicals associated with turf fields including heavy metals and flame-retardants. Youth/children are a vulnerable population. Their rapidly developing organ systems and breathing more air per unit put them at higher risk of exposure. Toddlers playing will have mouthing habits and will ingest these chemicals. See Table.

- **Microplastics:** Friction, heat, and general environmental condition cause the plastic blades in synthetic turf to break down into tiny pieces of plastic called microplastic, contributing to plastic pollution. Microplastics are considered contaminants of emerging concern since they do not biodegrade and remain in the environment for a long time. A hotter, wetter Philadelphia will wash away these microplastics from these fields into our air and drinking water.
- **Higher risk of injury:** Studies have demonstrated higher risk of ankle injuries for players.
- **Established harm to invertebrates:** Performed tests in variety of studies with soil organisms point to substantial concerns associated with the mortality of invertebrates such as earthworms.

Chemical or Classification of Chemical	Known human carcinogen	Anticipated to be a human carcinogen	Neurotoxicant	Respiratory irritant	Other
VOCs and SVOCs (e.g. Benzene, benzothiazole, hexane, toluene, formaldehyde)	X			X	
Styrene		X			
Polycyclic aromatic hydrocarbons (PAHs)		X			
Zinc, Lead, Chromium, Cadmium, Arsenic	X		X	X	
Latex					Allergen

Adapted from Beyond Pesticides, "Synthetic Turf is HAZARDOUS ", <https://www.beyondpesticides.org/fact-sheets/synthetic-turf>

### What to use?

**The safest option is natural grass**, which can reduce overall carbon footprint by capturing carbon dioxide, decreasing the effects of climate change. Grass fields can be maintained organically or with conventional or integrated pest management practices. Organic turf management eliminates the use of toxic insecticides, herbicides and fungicides. With appropriate field construction and soil and grass maintenance, natural grass fields can last for decades, with reasonable upkeep. For the millions spent on artificial turf, you can hire community residents to help maintain the grass fields. Artificial turf does nothing to meet the new Mayor’s mantra, of a “cleaner, greener Philadelphia.” And according to the plan, “FDR Park can heal Philadelphia’s ecology and people.” Not if the people who use artificial turf fields are burned and/or poisoned while playing. Artificial turf is not ecological, will not address climate change, and is a health hazard for the people who use it.

**We oppose the use of artificial turf as part of the redesign of FDR Park because of their health hazards. No one should be harmed or poisoned in FDR Park.**

## Citations

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