Why we should say NO to synthetic turf playing fields

Health professionals and professional sports players (including NFL players) are demanding natural grass fields. Here's why:

Synthetic fields contain chemicals that are known or supposed human carcinogens, reproductive toxicants, respiratory and eye irritants, endocrine disruptors, neurotoxicants, or aquatic toxicants.

- Chemicals too numerous to list are found in the plastic, sand, crumb rubber, and padding. They include benzene, arsenic, cadmium, lead, phthalates, Polycyclic Aromatic Hydrocarbons (PAHs)
- Even plant based infills (PBIs) contain chemicals and have respiratory risks. PBIs still sit on plastic grass which contains plasticizers, pesticides, PFAS, and more
- Some fields that claim to be "PFAS-free" have tested positive for the presence of PFAS

Synthetic playing fields cause more injuries, including more severe injuries

- Fake grass is harder on the body than grass (why NFL and pro soccer players want grass)
- Heat-related: Max surface temps during hot, sunny conditions average from 140° F to 170° F

Synthetic playing fields pollute air, soil, and water.

- Plastic fibers, generated by wear and photodegradation, and infill particles (rubber/silica) travel into the air, soil, and water where they can harm people, animals, and aquatic life
- PFAS, plasticizers, flame retardants, and disinfectants can leach into waterways
- Massive pollution occurs during plastic production (see ethane cracker plants)
- Disposal at landfills creates decades of waste. Recycling is NOT a viable option (see page 3).

Synthetic playing fields accelerate climate change.

- Producing plastics (see ethane cracker plants) creates major greenhouse gas pollution
- Replacing plants with plastic reduces the local capacity to absorb carbon dioxide
- Plastic absorbs and generates excessive heat – surfaces can reach up to 170 degrees

Synthetic playing fields are expensive to install and maintain

- Maintenance includes magnet sweeping to remove debris, disinfecting to clean up bacteria from vomit/blood/sweat, irrigating to cool off the excessively hot surface, replacing infill to prevent concussions/injuries from harder surface

Watch the webinar, The True Costs of Artificial Turf, to learn about: concerns about cancer in goalkeepers, chemicals in plastics and rubber, injuries, pollution from plastic production, mountains of waste, and ways to maintain natural grass fields (a Western Springs park is featured).

Learn More About Synthetic Turf

The American Journal of Sports Medicine Incidence of Knee Injuries on Artificial Turf Versus Natural Grass in National Collegiate Athletic Association American Football: 2004-2005 Through 2013-2014 Seasons

AP News What does the science say about the grass vs. turf debate in sports?

Beyond Pesticides Parks for a Sustainable Future

Collaborative for Health & Environment Playing on Plastic: Artificial Turf Hazards and Safer Alternatives

Elsevier The dark side of artificial greening: Plastic turfs as widespread pollutants of aquatic environments

Elsevier Global evaluation of the chemical hazard of recycled tire crumb rubber employed on worldwide synthetic turf football pitches

The Field Fund FAQ About Plastic Fields

Forbes How Taxpayers Get Fooled On The Cost Of An Artificial Turf Field

Icahn School of Medicine at Mount Sinai Artificial Turf Health Risks

Maryland Matters Fields of Waste: Artificial Turf Becomes Mounting Disposal Mess

National Center for Health Research Injuries Related to Artificial Turf

New York Times Lawyers to Plastics Makers: Prepare for 'Astronomical' PFAS Lawsuits

NFL Players Association Only Natural Grass Can Level The NFL's Playing Field

NPR Recycling plastic is practically impossible — and the problem is getting worse

National Recreation & Parks Association Synthetic Sports Fields and the Heat Island Effect

PFAS Project Lab, Northeastern University PFAS in Artificial Turf Fields:

Santa Clara County Medical Association Recommendation to replace existing aging artificial turf fields with natural turf fields for all fields in Fremont Union District High Schools

Surfrider Foundation Artificial Turf: Why we shouldn't choose plastic over plants

United Nations Development Programme What do plastics have to do with climate change?

Washington University School of Medicine in St Louis Injury incidence is higher on artificial turf compared with natural grass in high school athletes: A retrospective cohort study

Why Recycling Isn't a Viable Option

Synthetic turf has multiple components (plastic, rubber, sand), so the materials have to be separated before they can be recycled. The separation process consumes significant amounts of energy, generates a lot of pollution, and is very expensive.

Plastics manufacturers like to claim their products are recyclable, so people feel good about purchasing more. However, the reality is that only about 9% of all plastics created has been recycled.

Synthetic turf is no different. There might be a company claiming to recycle it now or in the future, but very few of the fields will be recycled. The turf mountains are already growing. Every purchase of synthetic, plastic turf creates waste that will pollute air, water, and soil for decades.

"We have to dramatically reduce the amount of plastic that we make. Everything else is second order."
Neil Tangri, researcher, University of California, Berkeley

"What's the best way to manage waste? To not produce it in the first place."
Jenna Jambeck, environmental engineer at the University of Georgia.

From MIT Technology Review Think that your plastic is being recycled? Think again.

Philadelphia Inquirer 'Forever Fields': How Pennsylvania became a dumping ground for discarded artificial turf

More than 6,000 rolls of artificial turf sit on B.D Hill Side Farm in Nicholson, Pa. Re-Match, a Danish recycling company, allegedly told the farm owner it would pay $96,000 a year to store the discarded turf while it built a recycling plant in Schuylkill County. Re-Match allegedly stopped making payments in 2019.

Monica Herndon / Staff Photographer

Protesters in Ithaca, NY

Spearheaded by parents, doctors, and people concerned about health and the environment, the movement to ban synthetic turf is growing.