

**From:** [Diana Carpinone](#)  
**To:** [Carol Ann Desiderio](#)  
**Cc:** [FriendsofRooseveltPark](#)  
**Subject:** Artificial Turf  
**Date:** Tuesday, March 28, 2023 2:04:12 PM

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Hello Ms. Desiderio,

Please forward the below message to the Mayor and Council for the public record. I have previously sent this information to the Malden BoH.

Thank you!

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Dear Mayor and Councilors,

My name is Diana Carpinone and I grew up in the Boston area. I am the President of [Non Toxic Communities](#), a national nonprofit that supports grassroots organizers to assist municipalities to adopt organic land care practices.

Members of your community have asked me to weigh in on the human health impacts of synthetic turf as you discuss plans for Roosevelt Park.

There are three main human health concerns when it comes to synthetic turf:

- Heat
- Toxicity
- Injury

Heat from synthetic turf fields is well documented. The synthetic turf plastic carpet can get up to 70° hotter than the surrounding air. Synthetic turf is even hotter than asphalt and therefore a large contributor to the heat island effect. With a changing climate, hot days will become more and more common as well as heat related illness.

*Grass is naturally cool, and can mitigate heat islands in urban areas.*

Synthetic turf carpets and often the infill added to them can contain many toxic chemicals that are neurotoxic, carcinogenic, and bioaccumulative. Lead, polycyclic aromatic hydrocarbons, and PFAS compounds are just a few of the chemicals found in synthetic turf components. People are exposed to these chemicals through inhalation, dermal exposure, and accidental ingestion. People can also be exposed to the chemicals after they have entered the environment and migrated away from the field. We are just beginning to learn about the health effects of micro plastics on the environment and human health.

*Organic natural grass can eliminate toxic exposures to the community that uses these fields.*

Because they are harder than natural grass when first installed, and become harder over time, synthetic turf fields cause more lower torso injury and more severe contact injuries than natural grass. There are even injuries that are unique to synthetic turf fields like "turf toe" and "turf burn." Abrasion injuries that are very common can become infected with pathogenic

bacteria that can linger on the synthetic field surface.

*Natural grass and living soil absorbs more impact, has more give when athletes pivot and turn, and as a living system can process and assimilate waste like animal droppings or bodily fluids, providing a cleaner surface that is replete with commensal organisms rather than pathogenic ones.*

When properly maintained, natural grass fields are cooler, safer and much more cost-effective than any synthetic turf product could ever hope to be. Many people rely on public parks as their only access to green space for recreation - which plastic fields are not.

For the benefit of the health of all Malden residents, I urge you to support efforts to choose real plants and soil for Roosevelt Park.

Thank you for your time and consideration of this matter.

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