San Francisco
Department of Public Health

Synthetic Turf

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Agenda

1. Introduction
2. California Environmental Protection Agency (EPA) Synthetic Turf Study
3. San Francisco Department of Public Health (DPH) Review & Assessment
4. Partnering with Other City Agencies
5. Renewing DPH Support

Turf Systems

Schematic of A Synthetic Turf System

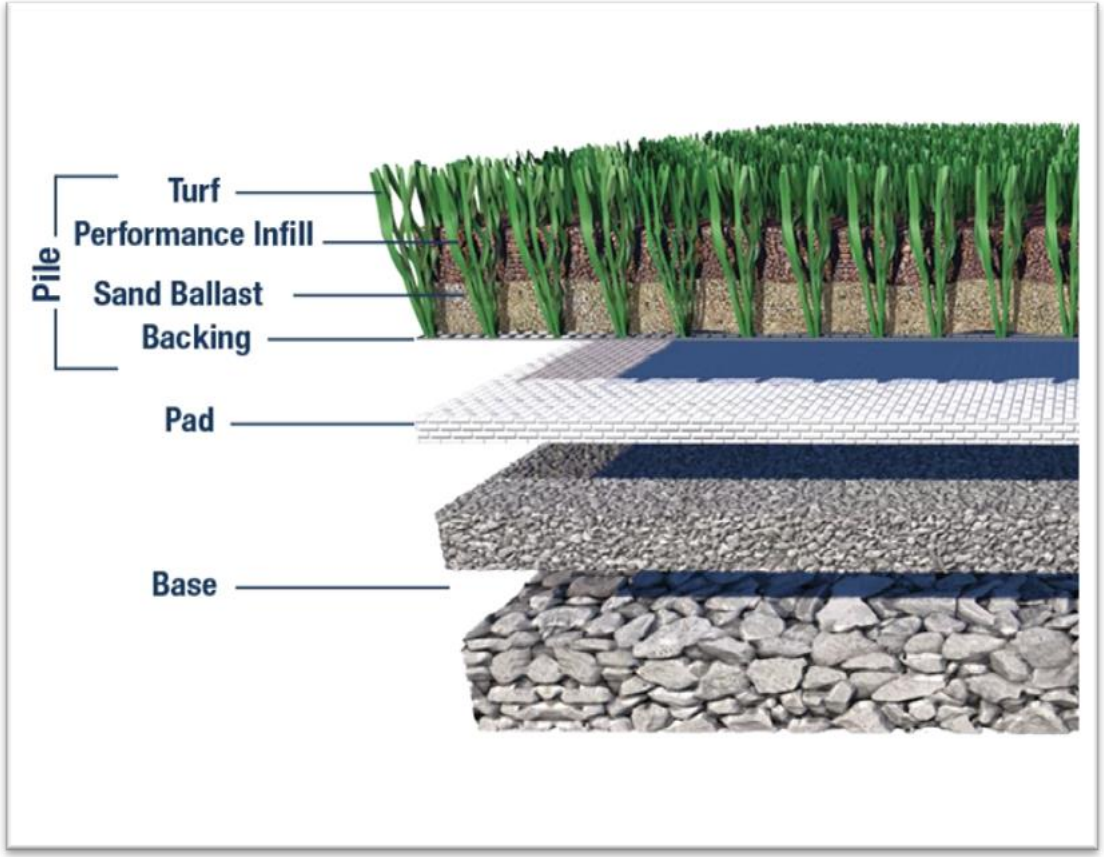
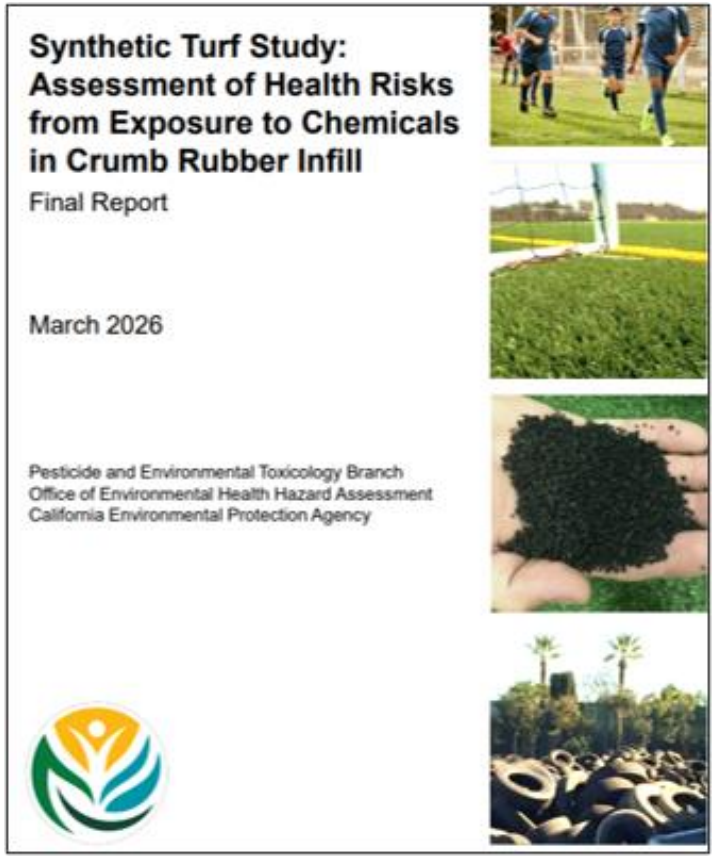


Image Source: The Motz Group

A typical synthetic turf field consists of multiple layers:

- The **turf pile**—the layer of grass blades—is made of fibers that are usually polyethylene, polypropylene, or nylon.
- A material called **infill** is distributed between the blades
- A **backing** layer usually anchors the turf pile so that the synthetic grass blades remain attached and evenly spaced.
- A **shock pad** may be added to absorb impact
- The **base** is typically made of gravel or other crushed rock

California EPA 10-Year Synthetic Turf Study



Access the full study via the link or QR code

https://oehha.ca.gov/risk-assessment/report/release-final-report-synthetic-turf

Focused on Synthetic Turf in California

- Investigators completed a comprehensive literature review, formulated a gap analysis on missing data, and then completed an expert-guided study
- Study investigators were given access to San Francisco (SF) fields
- Sampled 35 synthetic turf fields in California, including one SF turf field

Real-Word Testing

- Surveyed more than 1,000 CA soccer players, ages 7-71, including from SF
- Video-recorded athletes to see how often they touched the synthetic turf
- Collected chemical vapor (air samples) from synthetic turf fields during active play

Safety Testing

- With Lawrence Berkeley National Lab, simulated athletes' sweat on turf
- Identified multiple chemicals present in synthetic turf
- Looked at possible exposure risks to bystanders, including infants

California EPA Key Study Conclusions: Quotations

- **On short-term effects:** “The study did not find any chemical exposures associated with the turf fields that would pose immediate (acute) health hazards.”

- **On long-term effects: “On average, long-term use of the fields does not result in exposures to chemicals that pose significant non-cancer health hazards.”**

- **On sensory effects:** “The study found that use of synthetic turf fields does not pose hazardous levels of exposure to sensory irritants (chemicals that can cause irritation of the eyes or airways).”

- **On infant spectators:** “The maximum of the individual field values was associated with slightly elevated exposures, of low concern, for spectators 0–2 years old.”

Source: Office of Environmental Health Hazard Assessment. (2026). Synthetic Turf Study: Assessment of health risks from exposure to chemicals in crumb rubber infill—Final Report. California Environmental Protection Agency.

DPH Review & Assessment: Key Themes

Additional Evidence on Synthetic vs. Natural Grass Turf

- Greater risk of lower-extremity injuries on synthetic turf seen in NFL data
- Detection of warmer surface temperatures on synthetic turf vs. natural turf in several studies

In-Depth Review of Additional Evidence

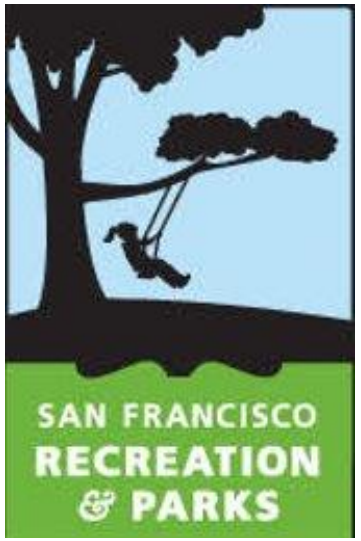
- Completed an in-depth review of additional peer-reviewed scientific analyses to ensure that our understanding reflects the full breadth of established scientific evidence.

Review of Laboratory Studies

- Review of laboratory study of existing synthetic turf

Partnering with Other City Agencies

Dissemination of DPH Review



Discussions with Recreation & Parks (RPD)

Recreation & Parks Staff Expressed Interest in Review & Shared Community Feedback

- Recreation & Parks staff conveyed deep interest in understanding health-related findings.

Recognizing Health Benefits of Increased Physical Activity and Outdoor Play

- Recreation & Parks staff also shared feedback from parents.
- On all matters involving children, SFDPH values the insights shared by parents and guardians.
- SFDPH recognizes that increased physical activity and access to recreational sports support children's overall health.

Partnering with Other City Agencies

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

Collaboration with Public Utilities Commission

SAN FRANCISCO ENVIRONMENT DEPARTMENT

Review Department of Environment

2026 Memo Recommendations

2026 Memo

Renewing DPH Support

DPH Will Continue to Support the Evaluation Process

DPH staff previously participated in the 2008 Synthetic Playfields Task Force.

As new studies emerge, our department will continue to review and interpret health-related data with City and community partners to support the development of thriving parks.

Affirming the 2026 RPD Turf Policy's Acknowledgement on PFAS

The assessment supports San Francisco Recreation & Parks' practice of expanding its testing requirements for new synthetic turf products to include testing for additional leachable PFAS.

Additional Data Are Needed to Address Data Gaps

This is an area of growing evidence that will require continued monitoring, with a focus on children, turf microbial data, alternative infill material & data on animal-turf interactions.

Thank you