

ARTIFICIAL TURF 101

WHAT THE SCIENCE ACTUALLY SHOWS

If your local school or park is considering a turf field, you have probably heard strong claims in both directions. Here is what independent research shows, including the parts it does not settle.

HOW IT'S INSTALLED

A modern field has five layers: a drainage base, an optional shock pad, a backing, plastic blades, and loose infill between the blades. Infill makes up roughly 90 percent of the field's weight, which is why most safety questions come down to what it is. Older fields used ground-up tires, called crumb rubber. Newer ones often use coated sand or plant-based material.

INJURIES

The largest analysis of soccer injuries found overall rates slightly lower on turf than on grass, including knee injuries. Foot and ankle injuries do show up more often on turf across many studies. NFL data is less favorable to turf, though professional football played by adults is a poor guide to youth recreation.

IS IT SAFE TO PLAY ON?

This is the most-studied question, and 2026 produced the clearest answer yet. California's Office of Environmental Health Hazard Assessment tested 35 fields spanning old and new installations in every climate region of the state, screened more than 100 chemicals, and surveyed over 1,000 players ages 7 to 71 to model real contact, including goalkeepers who dive most often and toddlers who crawl on fields. It found no significant risk of cancer or other health effects for players, coaches, referees, or spectators. Earlier federal research by the EPA and CDC found only small amounts of chemicals released into the air during play, though the agencies noted that work measured exposure rather than assessing risk.

HEAT CONCERNS

Surface heat is a real consideration — and one that's increasingly solved through engineering, not eliminated by removing access altogether. Our preferred turf to install, Pivot Turf, removes crumb rubber infill entirely and incorporates Pivot Cool technology, which reduces surface temperature by 30–40 degrees compared to other turf systems. Combined with shade structures, hydration protocols, and adjusted programming schedules, heat is a manageable design consideration—not a reason to deny children safe, reliable places to play.

Our position: Policy should be based on comparative risk assessment — weighing the very real, documented health consequences of reduced physical activity against concerns that deserve continued study. The most significant public health threat facing children today is not recreational surfaces. It is the absence of consistent opportunities to move.

WHY COMMUNITIES CHOOSE IT

A natural grass field reaches its practical limit near 900 hours of play per year. A synthetic field carries roughly one and a half to three times that, with no closures for rain or recovery. A full-size grass field can also require up to 1.5 million gallons of irrigation annually. Where demand for field time far exceeds supply, turf is often what keeps children playing at all.

ABOUT PLAYING FOR KEEPS

We raise funds to install turf fields in communities that lack safe places to play. We identify high-need sites, build partnerships with municipalities and school districts, and ensure every project is designed for lasting community benefit.