FieldTurf®
A Tarkett Sports Company

THE ULTIMATE
SURFACE EXPERIENCE

ARTIFICIAL TURF SAFETY: PROVEN WITH SCIENCE

FieldTurf continues to lead the industry by setting higher performance and environmental standards. With well over 15,000 sports and landscape installations, FieldTurf is the world's most trusted brand of artificial turf and has steered a high growth industry in the proper direction by setting the strictest of environmental standards.

Reports surrounding the environmental safety of artificial turf may, on the surface, be alarming. However, simply put, artificial turf is safe and the science is there to prove it. While FieldTurf acknowledges the concerns of the groups behind these initiatives, the truth is that their questions have already been answered.

Volumes of research and testing from academics, federal and state governments like New York, California, Massachusetts and Connecticut, and school systems have examined everything called into question about synthetic turf. The conclusions suggest synthetic turf poses no health risks.

Synthetic turf is, and has always been safe. There is no legitimate scientific or medical evidence that synthetic turf poses a human health or environmental risk.

Here is a small collection of some of the research on the subject:

Tabor Academy – Synthetic Turf Athletic Field Evaluation (March 2014)
Camp, Dresser, McKee and Smith, Inc

"The artificial (FieldTurf) field at Tabor Academy does not pose a threat to water quality or aquatic life. Water samples taken from the field in 2013 were tested for arsenic, cadmium, chromium, lead, mercury and zinc."

Bioaccessibility and Risk Exposure to Metals and SVOC's in Artificial Turf Field Fill Materials and Fibers (2013)
Brian T. Pavilonis, Clifford P. Weisel, Brian Buckley, and Paul J. Lioy

"The SVOCs identified based on library matches of their mass spectra were not present in toxicological databases evaluated and many are ubiquitous part of consumer products. Similarly, the metal concentrations measured in field samples indicate that the risk would be de minimus among all populations expected to use artificial turf fields."

An Open Letter concerning the potential cancer risk from certain granulate infills from artificial turf (July 2006)
FIFA, Prof. Dr. Jiri Dvorak

"The majority of the studies have been on higher surface area particles and have concluded they are currently acceptable. Therefore the larger granules used in artificial turf will have even less potential for emissions. For example a study undertaken by the Danish Ministry of the Environment concluded that the health risk on children's playgrounds that contained both worn tyres and granulate rubber was insignificant. The available body of research does not substantiate the assumption that cancer resulting from exposure to SBR granulate infills in artificial turf could potentially occur."

Hydroxypyrene in urine of football players after playing on artificial sports field with tire crumb infill (December 2008)
Joost G. M. van Rooij, Frans J. Jongeneelen

"The uptake of PAH of football players active on artificial grass fields with rubber crumb infill is minimal. If there is any exposure, then the uptake is very limited and within the range of uptake of PAH from environmental sources and/or diet."

Evaluation of the Environmental Effects of Synthetic Turf Athletic Fields (December 2008)
Milone & MacBroom

"An analysis of the concentration of metals in the actual drainage water indicates that metals do not leach in amounts that would be considered a risk to aquatic life as compared to existing water quality standards. Analysis of the laboratory based leaching potential of metals in accordance with acceptable EPA methods indicates that metals will leach from the crumb rubber but in concentrations that are within ranges that could be expected to leach from native soil."

Toxicological Evaluation for the Hazard Assessment of Tire Crumb for Use in Public Playgrounds (July 2003)
Enviro-Test Laboratories, Alberta Centre for Injury Control and Research, Department of Public Health Sciences

"Genotoxicity testing of tire crumb samples following solvent extraction concluded that no DNA or chromosome-damaging chemicals were present. This suggests that ingestion of small amounts of tire crumb by small children will not result in an unacceptable hazard of contracting cancer."

Evaluation of Health Effects of Recycled Waste Tires in Playground and Track Products (January 2007)
Office of Environmental Health Hazard Assessment / California Integrated Waste Management Board

"…risk is well below the di minimis level of 1 x 10-6 (one in one million), generally considered an acceptable cancer risk due to its small magnitude compared to the overall cancer rate."

Air Quality Survey of Synthetic Turf Fields Containing Crumb Rubber Infill (March 2009)
New York City Department of Health and Mental Hygiene

"In summary, an analysis of the air in the breathing zones of children above synthetic turf fields do not show appreciable impacts from COPCs [Contaminants of Potential Concern] contained in the crumb rubber. Therefore, a risk assessment was not warranted from the inhalation route of exposure."

Review of the Impacts of Crumb Rubber in Artificial Turf Applications (February 2010)
University of California, Berkeley and the Corporation for Manufacturing Excellence (Manex)

"The uptake of PAH by athletes who have contact with crumb rubber synthetic turf is negligible. As far as dermal contact is concerned, the Norwegian Institute of Public Health and Radium Hospital (2006) carried out an extensive analysis of possible health concerns. The study found that there was no evidence to suggest that allergic reactions were caused by exposure to crumb rubber and speculated that latex in car tires was either — less available for uptake or was — deactivated as an allergen."

An Assessment of Chemical Leaching, Releases to Air and Temperature at Crumb-Rubber Infilled Synthetic Fields (May 2009)
New York State Department of Environmental Conservation & New York State Department of Health

"Levels of chemicals in the air at synthetic turf fields do not raise a significant health concern."

"There is no significant threat from chemicals leaching into surface water and groundwater. While some chemicals can be released from crumb rubber over time, they are in small concentrations and are reduced by absorption, degradation and dilution — resulting in no significant impact on groundwater or surface water."

A review of the potential health and safety risks from synthetic turf fields containing crumb rubber infill (May 2008)
New York City Department of Health and Mental Hygiene

"Eleven different risk assessments applied various available concentrations of COPCs and none identified an increased risk for human health effects as a result of ingestion, dermal or inhalation exposure to crumb rubber."

Human Health Risk Assessment of Artificial Turf Fields Based Upon Results from Five Fields in Connecticut (July 2010)
Connecticut Department of Public Health Program in Environmental and Occupational Health Assessment

"Based upon these findings, the use of outdoor and indoor artificial turf fields is not associated with elevated health risks."

A Scoping—Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds (November 2009)
U.S. Environmental Protection Agency

"On average, concentrations of components monitored in this study were below levels of concern; however, given the very limited nature of this study (i.e., limited number of components monitored, samples sites, and samples taken at each site) and the wide diversity of tire crumb material, it is not possible to reach any more comprehensive conclusions without the consideration of additional data."

CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On (July 2008)
Consumer Product Safety Commission
http://www.cpsc.gov/en/newsroom/news-releases/2008/cpsc-staff-finds-synthetic-turf-fields-ok-to-install-ok-to-play-on/