



Synthetic Turf: Research Verifies Numerous Usage Benefits and Minimal Health & Environmental Risks

These days, synthetic turf seems to be everywhere. It empowered the Barrow Whalers to become the first Arctic high school football team in northern Alaska, helped Lakeland High School in Shrub Oak, New York win the New York State Field Hockey Championship in 2006 and was even endorsed by ABC sportscasters during their November 26, 2007 broadcast of the Pittsburgh Steelers-Miami Dolphins game, when a rain-soaked layer of newly installed sod turned Heinz Field into a veritable mud pit.

The escalating need for durable fields that accommodate multiple sports teams, coupled with increasing maintenance, water usage costs and climatic shifts, have prompted a rising number of schools and parks to turn to synthetic turf to balance their program needs. Today's synthetic turf is designed to simulate the experience of practicing and playing on a grass-like surface year round. Demand has grown to the point where over 800 multi-use synthetic turf sports fields are installed annually in North American schools, colleges, parks and professional sports stadiums. About half of all NFL teams currently play their games on synthetic turf, and it has been recently approved for World Cup soccer matches.

The Issue

As the popularity of synthetic turf escalates, so does scrutiny about its usage. Insightful and responsible questions are being asked regarding synthetic turf's potential negative impact on the environment and health of its users. The STC acknowledges the concerns of parents, school boards, athletic directors, local officials and environmental and regulatory groups in this regard. As the industry's trade organization, it is our responsibility to address these issues in an unbiased and judicious manner.

During the past decade, much independent, credible research about synthetic turf has been conducted worldwide, and is ongoing. Reputable governmental bodies and scientists in Norway, Sweden, Canada, Great Britain, New Jersey, California and Connecticut, international sports organizations such as FIFA (the international governing body on soccer), and trade institutes have examined the health and environmental aspects of synthetic turf. Their exhaustive efforts have concluded that there is every reason to use synthetic turf while perceived or proposed environmental and health problems have a negligible impact.

Further, to date, no state or federal agency has banned or restricted the use of artificial turf. In fact, environmental health officials in Connecticut recently pronounced that the chemical compounds associated with the infill material from recycled rubber tires used in this technology posed no danger to human health or the environment.

Environmental Advantages of Synthetic Turf

Crumb used tire rubber has been safely utilized in synthetic turf sports fields since it was introduced in 1997, and in playgrounds and tracks for much longer. The U.S. EPA's position is that scrap tires are not a hazardous waste, and recommends using crumb material from granulated used tires for playgrounds, running tracks, and sports fields. This decree has afforded the opportunity to recycle 25 million used auto tires per year, tires that would otherwise end up in U.S. landfills.

A well-maintained natural turf field requires consistent irrigation and ongoing applications of both fertilizers and pesticides. It is not uncommon for grass fields to require 50,000 gallons or more of irrigation water per week during growing season and thousands of pounds of fertilizers and pesticides annually. Synthetic turf fields substantially decrease water usage, essentially eliminate chemical treatments and reduce the man hours and power equipment operation needed to maintain a grass field.

User Benefits of Synthetic Turf

Increasing demand for higher quality playing surfaces and intense competition for field accessibility have given rise to a new generation of synthetic turf systems that replicate the look and feel of manicured natural grass. Synthetic turf is supplanting its grass counterpart in record numbers because of the numerous benefits it affords, including: exponentially increased playing time, as synthetic turf can be used daily and in all types of weather, without worry of damage; improved playability, as synthetic turf fields remain uniform and consistent, season after season; increased safety, because the fields are infilled with resilient materials that provide a level of impact attenuation that is difficult to sustain on worn down, over-used natural turf fields; reduced maintenance costs; and environmental friendliness in terms of origin, application, use, disposal, sustainability and resource conservation. In addition, while turf grass managers recommend against using a natural field for more than 20 – 24 hours per week or 680 to 816 hours per year for a three season window, synthetic turf can be utilized around 3,000 hours per year with no “rest” required.

STC Position

At STC, we believe that reliable scientific data should be the foundation of any discussion regarding synthetic turf's safety and utility. After reviewing the available research from a diverse group of third party experts, our organization is confident that the benefits of synthetic turf to players, schools, communities and the environment are documented and substantially outweigh any potential, minimal risks.

Claims of toxicity are generally based on extreme laboratory testing such as the use of solvents and high temperatures to generate pollutants. Rarely replicating actual field conditions, this laboratory work does not represent realistic material characteristics. More often than not, even with laboratory testing, results in levels of pollutants are below existing background levels within the environment. Given these facts, the environmental concerns have been deemed insignificant by third-party experts. This position is consistent with recommendations of regulating agencies and organizations, such as the U.S. EPA and FIFA, that sports fields is an acceptable use for recycled SBR tire rubber.

Individuals need to weigh the facts themselves to determine if synthetic turf best meets their needs. A collection of unfiltered, credible studies conducted by experts worldwide have been posted on our Web site (www.syntheticurfCouncil.org) for review. In addition, we have launched a Public Outreach & Education Campaign to provide answers to commonly asked questions, as well as educational materials and position papers.

About the Synthetic Turf Council

Based in Atlanta, the Synthetic Turf Council was founded in 2003 to serve as an objective resource assisting buyers and end users with the selection, use, and maintenance of synthetic turf systems in sports field, golf, and landscape applications. The organization actively collects reputable studies and research, as well as official statements by governmental agencies and sports organizations, which address the impact of synthetic turf sports fields. STC members produce and install most of the synthetic turf sports fields in North America. Membership includes builders, landscape architects, testing labs, maintenance providers, installation contractors and other specialty service companies. For more information, visit (www.syntheticurfCouncil.org).