

Artificial Turf Dangers

Questions & Answers

Artificial Turf Dangers Q&A

Is the rubber used in artificial turf fields dangerous?

No. Recycled tire rubber has been used for almost twenty years in a variety of products used by consumers every day. The crumb rubber used for artificial turf has been used in running tracks, sports fields, parks and playgrounds and has undergone countless health and safety studies prior to its use and installation.

What does the testing say?

Hundreds of complex tests have been done by world-class facilities around the globe. Health and safety, environment, toxicology and other leading environmental study groups, including universities, government departments, hospitals, health ministries and independent laboratories have concluded there is no danger to human health or the environment.

Have there been any injuries?

There has never been a single case of anyone ever becoming injured or sick as a result of ingestion, inhalation or skin contact with artificial turf materials.

What about PAHs, aren't they carcinogenic?

PAHs are a naturally occurring substance found everywhere in our environment. They are the result of combustion, cooking of foods, burning of fuels and all tests confirm that PAHs can be found everywhere.

Haven't PAHs been found in the rubber in artificial turf?

Testing of three different turf systems in both open air and enclosed environments revealed that the same materials were found in turf filled with rubber, rubber and sand - even in turf with no rubber or sand at all! These substances are airborne and are picked up in the atmosphere and deposited in the turf by rainfall or by the drinking water used in indoor testing.

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Can a reduction of the PAHs in tires reduce the overall concentration of PAHs found in the environment?

The Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) published its report in Brussels, which reads, “A reduction of the concentration of PAHs in tyres will insignificantly reduce the overall concentration of PAHs found in the environment.” The report goes on to state “tyres contributed less than 2% of the exposure associated with respirable particles and 1% of PAHs concentrated in sediments.” Based on this worst-case scenario the risk of PAHs from an artificial turf field would be approximately .000000008%.

What about leaching of chemicals or heavy metals into groundwater systems?

Testing at toxic sites has determined that crumb rubber absorbs these toxins rather than releasing them. Toxic waste, including sludge, oils and other VOCs were placed in two containers – one on a layer of tire rubber chips and one on a layer of stone. Over several years the runoff (both liquid and gas) was gathered and measured from these tanks. These tests showed a lower release of toxins from the samples on rubber chips.

I have read reports of testing showing high levels of toxins in crumb rubber.

Unfortunately, tests done in laboratory circumstances simply break down the components of rubber. Such unnatural conditions do not take into account “dilution” or “dispersion” or “biodegradation” which are expected natural processes in the environment and are very important factors to consider when evaluating any release of material. The vast and overwhelming majority of studies shows that the potential release of materials is of no concern to human health or the environment.

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Aren't tire dumps hazardous?

The danger may occur when they burn and produce noxious gases. In the clean, crumb rubber state, as used in a sports field, they are perfectly safe. So it is environmentally responsible to get them out of landfills and dumps and recycled into such beneficial things as playgrounds and sports fields.

You make this sound like it is beneficial to use recycled rubber!

Yes it is. Artificial turf fields are durable and playable 24 / 7 to enable our obese kids to get off the couch and onto the sports field, regardless of the weather. Artificial fields do not waste a million gallons of clean drinking water used each year to water a natural grass field. Artificial turf fields also eliminate some 8 billion pounds of herbicides, pesticides and fungicides used each year in America to keep natural grass in good shape.

Have there been any injuries on artificial turf?

Not because of exposure to the materials used. In fact, artificial turf has shown to be much safer than natural grass. Americans suffer 750,000 injuries each year in recreational sport – including 82,000 brain injuries. A five-year study showed that artificial turf reduced neural injuries by 55% and cranial cervical injuries by 47% when compared to injuries sustained on natural grass.

I understand that laws were passed in Sweden outlawing rubber use in artificial turf fields.

There are no such laws in Sweden. In fact there are more rubber filled fields being installed each year in Sweden. A major study in Sweden concluded that the rubber is not dangerous to human health.

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There are other issues I hear about artificial turf: What about MRSA?

MRSA results from infection of an existing open wound. While these wounds have occurred on abrasive carpet type artificial turf systems, like old style AstroTurf, the infections have been a result of sharing towels, whirlpool baths, massage tables and poor hygiene. No MRSA has ever been found in the turf system itself, although it has been found throughout the locker room environment.

Then why do some manufacturers and customers offer a spray disinfectant for their fields?

This was a classic case of a manufacturer of a disinfectant capitalizing on the marketability of the MRSA scare, claiming their product would prevent MRSA. The company first approached FieldTurf to offer an exclusive supply relationship. When FieldTurf asked to see the science behind it, there were no studies that showed infection was found in the turf. In fact, if such a product could do what was claimed, it would be used in every hospital in the world – which it is not.

Does replacing natural grass fields with artificial ones reduce the oxygen in the air?

70% of our oxygen comes from the oceans – not from natural grass. The other 30% of our oxygen comes from natural environments that grow, die and decay – such as rainforests and peat bogs. Natural grass playing fields, that get cut every week, do not produce oxygen.

Do artificial turf fields get hot?

Yes, in very hot climates this has been noted. FieldTurf is working on solutions, but of the 2500 fields installed to date, we have only received about a dozen calls regarding this issue.

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Doesn't artificial turf go against our efforts to reduce global warming?

With over 30 million acres of lawns, natural grass is by far America's largest irrigated crop. Artificial turf represents less than .000002 of this green space. For every artificial turf field that gets installed, over 2 million black asphalt parking spaces are currently being built. Global warming concerns would be better off aimed at reducing asphalt – not artificial turf.

So why is all this making headlines?

Ten years ago artificial turf fields were being installed at a rate of 10 per year, nationwide. The natural grass industry was not concerned about artificial turf. Now with almost 1,000 fields being installed per year, artificial turf is a serious threat to the natural grass industry – a 5,000-member behemoth that sells some \$40 billion of chemicals each year – herbicides, fungicides and pesticides used to maintain grass fields. The result of the growing popularity of artificial turf has been the spread of misinformation, fallacies and scare tactics by the natural grass industry.

We hear residents complaining about this, not the natural grass industry.

The natural grass industry produces clever anti-turf materials in a variety of ways and makes them available to anyone who wishes to object to the construction of a new artificial turf field. A resident may have been against an artificial turf field because they didn't want the noise or the crowds. Or they may have tried to oppose because they felt that the money being spent on an artificial turf field could be put to better use. Now armed with documents that suggested artificial turf causes cancer, those in opposition finally got some wind in their sails and their complaints suddenly made headlines.

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So this is not true? It isn't dangerous?

There will always be some study that finds a potential danger in any material and calls for more research. The fact is that hundreds of studies have already been performed across the US and around the world. This story did not arise because of a concern for human health or the environment. It is a result of the commercial interests of the old guard protecting their natural grass business (while polluting our planet with pesticides), by attacking a new technology that has proven to be a much better idea.

I find this hard to believe! Who can confirm this?

Leading experts who have been studying the subject for many years are available for comment or interview. Extensive documentation and studies can verify all of these statements. A great deal of information from leading resources is available. Look at the science first and then decide.

Shouldn't we be looking at other infill materials that can be used instead of tire rubber, at least until we know more?

FieldTurf Tarkett is the world leader in this industry, with several non-rubber infill systems available. FieldTurf Tarkett has been installing such fields for several years now. These fields are far more expensive and are far less durable. They are available if customers insist, but they are not recommended by the manufacturer. Testing has shown very similar release of substances from these alternate infill fields. EPDM filled fields, touted by some as the “green” solution, actually release worse toxins than those claimed in rubber field.

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Why should we believe the FieldTurf “spin” on this issue?

This is not FieldTurf “spin.” It is factual evidence – cold, hard science, devoid of opinion or assumption. FieldTurf was invented to provide a real grasslike alternative to the unsafe and dangerous AstroTurf systems that were the cause of so many career-ending injuries. FieldTurf Tarkett is a global manufacturer who for the past 100 years has been at the forefront of environmental responsibility. Since 1930 FieldTurf Tarkett has been introducing new manufacturing technologies to recycle and reuse, leading the charge to remove harmful materials from the environment.

Isn't it better to wait for more testing before moving forward with more artificial turf field installations?

There is ample evidence available. It just needs to be distributed and reviewed. Unfortunately, cold science is more complex to understand than a 10 second sound bite “scare” by a TV reporter.

