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Massive Federal Report Is Only First Step In Assessing Safety Of Crumb-Rubber Turf Fields



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I write about youth sports under the title: Your Kid's Not Going Pro.



Particles of the crumb rubber infill stick to a field hockey ball during a Yarmouth, Maine, field hockey practice Friday, August 19, 2016. (Photo by Shawn Patrick Ouellette/Portland Press Herald via Getty Images) GETTY

A joint effort between two U.S. federal agencies has released its first report about crumb-rubber synthetic fields, but you still have to wait if you want a definitive look on whether a surface made partly of recycled tires is safe for your children.

That's because the 800-plus-page report, three years in the making, that dropped on July 25 is only part one of a two-part series, and who knows when part two will

come or how long it will be. Part one covered only -- if you can say "only" about an 800-plus-page report -- what chemical substances may be in the fields, and some assessment of level of exposure. Part two will get to specifics on how they interact with humans, and any risks.

In the interim, there is no expectation that the pace of crumb-rubber field installation is slowing down; according to the report, there are 12,000 to 13,000 such fields, with another 1,200 to 1,500 opening every year. The Consumer Product Safety Commission separately is preparing a report studying children's exposure to recycled-tire surfaces on playgrounds, and has said it will take all the federal research into account when it issues its conclusions.

What we do know from the first report, [issued by the U.S. Environmental Protection Agency \(EPA\) and the Agency for Toxic Substances and Disease Registry \(ATSDR\)](#), is this, as reported by the publication [Chemical Watch](#):

“ The agencies say that the range of chemicals identified in crumb rubber was "as expected", including metals and dozens of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).

But the report says emissions of many of these organic chemicals into the air were found to be below detection limits or background levels, and that releases of metals into simulated biological fluids were very low.

Together, these findings "support the premise that while chemicals are present as expected in the [tire] crumb rubber, human exposure appears to be limited based on what is released into air or simulated biological fluids," the report says.

However, that report emphasizes that there is no determination of whether that limited exposure has any toxic effects.

The impetus for the study came as lawmakers pressured federal agencies to act after [sporadic reports of players on crumb-rubber fields contracting cancer](#), and a [2015 Yale University study](#) finding that fields sampled contained 96 chemicals.

Of the less than half of those chemicals tested for the study, 20 percent were considered probable carcinogens, and 40 percent were irritants that could cause problems with breathing, the skin or the eyes. That Yale study was commissioned by the Connecticut-based Environment & Human Health, which has [advocated against crumb-rubber fields](#), including [pushing a bill in its home state](#) that would put a moratorium on using that material for municipal and public school playgrounds and fields. [It failed in the 2019 session.](#)

The federal report noted that research is "inconclusive" on the safety of crumb-rubber fields. While [there is always reason to believe the Trump EPA is hostile to anything that might been seen as environmentally beneficial](#), politics doesn't appear to be (not yet, anyway) the driving factor in the crumb-rubber study, which began during the Obama administration.

You might ask -- why did we start using recycled tires to begin with on playgrounds and fields? [Here is some history from Fair Warning, an environmental news site:](#)

“ Developed in the late 1990s, crumb rubber turf was considered a vast improvement over the 1960s surface known as AstroTurf, which amounted to a carpet of short, fake grass laid over a pad and asphalt base.

Unlike its predecessor, crumb rubber turf was a synthetic carpet of longer, grassy-looking fibers filled in with ground-up scrap tires. The new generation of artificial turf was billed as a win-win, providing a destination for junk tires and a more cushioned playing surface for children and athletes.

During that era, the EPA promoted the use of turf made from recycled tires and assured the public in 2009 that there was little cause for health concerns, a position from which the agency later retreated. Recyclers touted crumb rubber turf as a low-cost alternative to natural grass that was easier to maintain. And, they noted, it extended playing seasons in rainy climates, where a grass field could quickly become a muddy bog.

But there was a noticeable byproduct.

The tiny black granules embedded in the turf also clung to skin and clothing, and black dust could be seen spewing into the air during play. Suddenly, soccer moms and coaches were raising questions about the potential harm to children.

The federal report noted that "recycled tire crumb rubber (sometimes mixed with sand or other raw materials) is added for ballast, support for the synthetic grass blades, and as cushioning for field users." Also, and this is just me talking, replacing grass fields with crumb-rubber turf offered the promise of easier maintenance and fewer injuries, since you wouldn't have to spray herbicides to keep the weeds out and the grass strong, and you wouldn't have ruts in the field that could cause foot and ankle injuries.

If it wasn't for the black dust you see kicked up on the fields -- think of NFL games you've watched when a sliding quarterback kicks up a cloud of dirt, which then get stuck to whatever player was in the area -- I'm not sure parents and advocates would be so worried about these fields. It's easy, when you see floating bits of ground-up tires, that maybe this isn't something good for anyone.

It'll be a long time before any research gives a definite answer on whether the worries over crumb-rubber fields are legitimate. The only sure thing is, if you have an opinion on these fields, it's probably not going to change no matter what researchers say.



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