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Federal agencies at odds over artificial turf recommendations

In June, the federal Centers for Disease Control and Prevention (CDC) released [a health advisory](#) that raised concern about the safety of certain artificial-turf fields. The advisory was [based on a study](#) from two New Jersey agencies. After analyzing a small sampling of fields and commercial products, the state's researchers found that older fields that are made of nylon or nylon/polyethylene blend fibers can contain levels of lead that pose a potential public health hazard. Lead chromate is found in the pigment that's used to color some turf surfaces green. Although the CDC says the immediate risk for harmful lead exposure from new fields is low, lead dust released as the artificial turf ages and weathers could then be ingested or inhaled raising the risk of harmful exposure.



The Consumer Product Safety Commission (CPSC) recently weighed in on the issue and released [a controversial report](#) that analyzed synthetic turf "grass blades" and assessed the total lead content and risk of exposure to the toxin. The title of a CPSC press release drawing attention to the report reads: "[CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On.](#)" But in what seems to be a contradiction, the commission also said that "although this evaluation found no harmful lead levels, CPSC staff is asking that voluntary standards be developed for synthetic turf to preclude use of lead in future products." The agency also advised that young children should wash their hands after playing outside, especially before eating.

Congress quickly challenged the report. Congresswoman Rosa DeLauro (D-CT) [sent a letter](#) to Acting CPSC Chairman Nancy Nord criticizing what appears to be flawed test methodology and the use of less-than-adequate rationale to conclude that children are safe from exposure to lead when playing on artificial turf fields. DeLauro took issue with the report [on several points](#):

- The CPSC studied samples from only eight fields out of a total of some 3,500 synthetic fields currently in use. The sampling was too limited to give a good representation of the lead levels in synthetic fields across the nation.
- There are unexplained gaps and wide variability in the data provided.
- The study was limited to lead in synthetic "grass blades" and did not include analysis of "crumb rubber" used in the fields. There was no apparent analysis for other toxic chemicals that have been found in crumb rubber.
- The report failed to give adequate analysis of why the oldest field tested (installed in 1999) was associated with the highest estimated daily ingestion of lead.

We share those concerns and have a few of our own:

- We are concerned that the study didn't analyze enough samples from older fields. Only two samples were from fields more than five years old. The CPSC staff acknowledged in the press release on the study that some conditions such as age, weathering, exposure to sunlight, and wear and tear might change the amount of lead that could be released from the turf. And since the oldest field in their study showed the highest exposure to lead, we think they should have focused their testing on older fields before categorically giving them all a clean bill of health.
- The total lead content of the grass blades tested ranged from "none detected" to 9,600 parts per million (ppm). Ten of 26 samples tested far exceeded the current 600 ppm legal limit that applies to lead in paint and that limit will be significantly reduced as a result of the 2008 Consumer Product Safety Improvement Act. Shouldn't the fields that our children play on meet the same standards?
- The CPSC study did not take into account exposure to lead from inhalation or direct ingestion of dust from the synthetic field. The CDC advisory pointed to this hazard.
- We question some of the assumptions the CPSC made about how to measure ingestion levels.

- The [American Academy of Pediatrics](#) has stated that there is no safe level of lead exposure. Yet, the CPSC's conclusions express risk in terms of what they have established as harmful levels. We think their analysis and conclusions should be consistent with those of the medical community. They should take into account that athletic fields are not the only source of exposure to lead and that it's important to eliminate avoidable sources of exposure.
- And although environmental issues are not under the CPSC's purview, we are concerned that lead dust liberated from artificial playing fields may leach into soil and enter nearby waterways. This needs to be studied by the Environmental Protection Agency.

Should the CPSC classify artificial turf as a product primarily intended for children age 12 and under, it would be subject to new [federal legislation](#) that would set strict limits on the amount of lead it can contain. If mandatory regulations are not imposed, voluntary standards may suffice. [ASTM-International](#) has begun work writing a new voluntary standard for specifying the maximum lead content in synthetic turf fibers.

We are not advocating tearing up artificial turf fields, but we do think field managers, coaches, school officials and parents should follow the "[Taking precautions](#)" advice we gave in [our June 19 blog posting](#). And that the CPSC, CDC, and EPA should conduct a more thorough study to adequately assess all the risks associated with artificial playing fields.