

## **Fact Sheet: Recycled Rubber Infill Safety**

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**The issue of whether or not playing on synthetic turf fields with recycled rubber infill has any connection to long-term health risks has been the subject of numerous studies.**

- *There have been dozens of studies, peer-reviewed academic analyses and government reports published that have been analyzed by independent third-parties and hold up under peer-review from toxicologists that are committed to impartial evaluation of the science. Available studies show exposures to many of the chemicals in artificial turf is not substantially different from those in urban or rural soil.*

**The assertion that there are significant gaps in the evidence supporting the safety of crumb rubber turf fields is false.**

- *When evaluated individually, some studies may have limitations or data-gaps—which is true of any individual scientific study, in general—and from a scientific perspective, additional research can always be conducted to provide additional evidence.*
- *However, existing studies have evaluated many aspects of safety; they have looked a multitude of chemicals, at all major exposure pathways—ingestion, inhalation, skin contact—and have used many methods.*
- *So when you consider the totality of the evidence with all synthetic turf studies looked at together, the data supporting the safety of crumb rubber turf fields does not leave significant gaps.*

**Scientific, peer-reviewed studies to date have already extensively examined many exposure pathways.**

- *There have been many exposure assessment studies conducted that adequately examine the three major exposure pathways, which are through ingestion, inhalation, and through the skin.*
- *One peer-reviewed study did an extraction analysis using a variety of simulated biological fluids to see what happens when we ingest, or inhale, or generally come in contact with these particles, and whether we absorb any chemicals. This particular study found negligible extraction for the chemicals and the scientists concluded the chemicals did not pose concerns for health effects. Two other similar studies that looked at the ingestion pathway found consistent results.*
- *Based on these extraction studies, pellets getting into cuts or abrasions would also be unlikely to present risks that are any different than those related to getting dirt into cuts or abrasions.*

**The mere presence of a chemical does not mean it poses potential health risks.**

- *The most common five chemicals found in crumb rubber that have been brought up as points of concern are arsenic, benzene, cadmium, and nickel, and polycyclic aromatic hydrocarbons (PAHs), but context is needed relating to how often we come into contact with each by simply being part of society:*
  - *The amounts of PAHs in recycled rubber is generally similar as found in natural soils, as well as grilled foods such as steak or chicken.*
- *Research has found exposure to these chemicals from recycled rubber is below health guideline levels.*
- *Given this, regulatory reports have found that chemical exposures from synthetic turf present a very low risk.*

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**Michael Peterson serves as Scientific Advisor to the Recycled Rubber Safety Council. For more information, visit: [www.recycledrubbercouncil.org](http://www.recycledrubbercouncil.org)**