

## Martha's Vineyard Commission

The following comments are my professional concerns based on the research and my experience as a nurse, educator and practitioner. They do not represent any current organizations' opinions on the Vineyard or elsewhere. To date, the science to support the safe utilization of "Artificial Turf" is inconclusive. It is in its formative stage. Recent studies have indicated that the use of "Artificial Turf" is associated with increased cancers, leukemia, and neurological disorders due to its toxicity. It is essential that, as a community, we act to prohibit the use of recycled rubber in any area where it may impact the health and well-being of our country's future, our youth.

**Since the science is still evolving, we need to apply the precautionary principle. "Where an activity raises threats of harm to the environment or human health, precautionary measures should be taken if some cause and effect relationships are not fully established in science" (Wingspread, Precautionary Principle Statement, 1998), D.Kriebel et al., The Precautionary Principle in Environmental Science.**

We know our Children are uniquely vulnerable to toxic exposures due to their immature organs and developing brains and bodies, which makes it more challenging for them to detoxify or eliminate certain toxins. Small exposure may result in permanent, adverse health impacts.

A relatively recent use of ground up used rubber tires, also known as "crumb rubber," is to cushion or infill synthetic turf fields or create playground surfaces. Approximately 40,000 tires can be recycled into crumb rubber pellets to use as infill material for a single field. Tire rubber contains many harmful chemicals including styrene, butadiene, cadmium, benzene, chromium and arsenic as well as other toxic chemicals. Many of these are neurotoxic or carcinogenic. When the recycled tires are crumbled and used in artificial turf, the small crumb infill still contains the toxic chemicals that were in the tires. There is growing evidence that, in this context, the risk of exposure from ingestion, inhalation and dermal absorption occurs. Children

who play on these fields report having black dust and crumbs all over their body and clothes. Young children are particularly vulnerable due to their hand to mouth behavior and being low to or on the ground. Incidents of increased Cancer in soccer players are being reported (Hulick, 2016).

Another concern, which should be vigorously addressed, is the extent to which chemicals may leach from the fields into the surrounding environment, soil, ponds and groundwater. The New Jersey Work Environmental Council, investigating the impact of chemicals in rubber infill on groundwater and the environment, has shown groundwater to be contaminated with latex and other rubber compounds, as well as the toxic materials previously presented above. Lastly, the ability of infill-related chemical exposure to cause allergic reaction or irritation (skin or respiratory) has not yet been thoroughly studied. The issues of the potential impact on reproductive health are still being studied. (Mount Sinai, Children's Environmental Health Project Fact Sheet, 2016)

**Among the driving Forces for the utilization of Crumb rubber is the growing number of used tires and prohibitions for their disposal in landfills. New markets for this hazardous waste product are actively being sought.**

**The Resource Conservation and Recovery Act (RCRA) of 1976, our nation's primary law governing disposal of solid and hazardous waste, gives the EPA the authority to control hazardous waste from "cradle-to-grave," including used rubber tires. But it also states, "that the recycling of a hazardous waste product into a useable consumer product automatically exempts it from RCRA requirements, even if the end product it creates is more toxic product".**

**This egregious "Loophole" means that no monitoring follows the new products that have been manufactured from recycled hazardous waste, such as synthetic turf crumb rubber infill or recycled rubber playground surfaces (Weininger, E. 2016, Grassroots Environmental Education.**

Playgrounds and fields, which are supposed to be a “safe haven” for children, are often are only places where kids can play freely outdoors. It’s our responsibility as health care providers, policy makers, parents and grandparents to ensure that playgrounds are safe. Allowing them to be filled with potentially hazardous material does just the opposite – it creates greater risks for children. Whether we use plastic grass carpets infilled with “plant-based” material with crystalline silica or another “alternative” material, does NOT signify that the material is safe. In fact, the material becomes more hazardous once it’s shredded because there is more surface area that children come in contact within their environment. These shredded fibers become entangled in children’s hair, stick to their hands and arms, their legs and feet, get in their ears, inside their noses, under their fingernails, between their toes, in their eyes and eyelashes, and worst of all, end up on their lips, in their scrapes where they enter the bloodstream, and inside their mouths, where they’re swallowed and enter the digestive system. Ingesting chemically treated materials and known carcinogens is not an intended use of this product, but it happens to children every day. If you asked parents whether they’re comfortable having their children play in, touch and swallow unregulated, chemically treated materials, day after day, or bringing this material into their homes, they would answer with an emphatic “NO.”

**Despite the artificial turf industry’s reassurances that these materials are safe, the experts in children’s health believe otherwise.**

I ask, are you are you willing to deny facts substantiated by research and install fields with material that we know is potentially dangerous when we have research that is beginning to address the long term consequences of artificial turf fields on the individuals exposed to these alternative substances? Are you willing to endanger your children based on a marketing sales pitch that may result in chronic illness or death long after exposure?

Not to mention, artificial turf is expensive and may eventually have to be removed at a very great cost to the taxpayers of the community. This issue is not going away, eventually all these fields will end up being removed and replaced. The cost will then fall on the backs of the citizens of our Community.

The health costs and the potential pain and suffering are difficult to predict. It may be your children and grandchildren who become ill after exposure. I ask, are you willing to take a chance on getting your own children and grandchildren sick or losing them?

We, as educated consumers, need to understand the impetus that is driving the use of “Crumb Rubber” in our country. Once we understand the impetus, we should be firm in our rejection of the use of crumb rubber turf fields being implemented on our school fields and our playgrounds. The utilization of this substance is potentially toxic to our most valued resource, our children.

Do not settle for a product that may potentially endanger and destroy the health of our children. It is better to play in wet mud than to play on “Toxic Crumb Rubber” material that potentially affects your health, your home and your natural resources. A material that is not disposable and has the potential of contaminating our natural resources; resources Martha’s Vineyard is dependent on.

Respectfully Submitted

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