



# CRUMB RUBBER AND ARTIFICIAL TURF

## WHAT IS ARTIFICIAL TURF & CRUMB RUBBER?

Artificial turf or 'synthetic turf' is used as a surface on playgrounds, athletic fields, and residential lawns.

Artificial turf is made of multiple parts:

- Drainage materials
- Cushioning layer
- Plastic blades of grass
- Infill.

Crumb rubber infill made of recycled tires is estimated to be about 90% of the weight of artificial turf, thus making up the vast majority of the playing surface.

## WHY SHOULD I BE CONCERNED?

Crumb rubber infill is made of numerous chemicals, many of which are known to be harmful to human health. These include polyaromatic hydrocarbons (PAHs); volatile organic compounds (VOCs); and metals, such as lead and zinc.

Flame-retardants, pesticides and per- and poly-fluoroalkyl substances (PFAS) are also added to the plastic blades of grass.

Exposure to these harmful chemicals found in the crumb rubber infill and plastic blades of grass can occur via: inhalation; absorption through the skin or open cuts; or ingestion of infill particles.

Artificial turf can heat up and burn the skin and cause increased risk of heat-related injury.



## WHAT ARE THE HEALTH EFFECTS ASSOCIATED WITH EXPOSURE TO SOME OF THE CHEMICALS FOUND IN ARTIFICIAL TURF?

- Lead is a neurotoxin. There is no safe level of lead exposure.
- Volatile Organic Compounds can irritate eyes, nose, throat, and skin. High levels of exposure can cause damage to the liver, kidney, and central nervous system.
- Per- and poly-fluoroalkyl substances (PFAS) exposure can disrupt the endocrine system and cause development delays.
- The hot artificial turf fields can also cause heat stress, leading to heat exhaustion and heat stroke. Children playing on this hot surface are more at risk for dehydration, fatigue, and other heat-related symptoms.



## WHAT CAN I DO TO PLAY SAFER ON ARTIFICIAL TURF?

- Wash hands before eating, drinking or touching the mouth.
- When possible, change clothes and shower immediately after playing on artificial turf.
- Limit the amount of time a child spends playing on worn or visibly deteriorating artificial turf surfaces.
- Avoid use on hot days.
- Supervise young children and avoid mouth contact.
- Clean equipment or toys immediately after being used on either artificial turf fields or playgrounds containing crumb rubber.
- Take off shoes before entering the child care facility.
- Vacuum any crumb rubber infill that comes into the child care facility.

When installing new playground surfaces choose safer materials, including organically managed natural grass.



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