

## Are artificial turf fields in Westfield, NJ safe for our children?

Children in Westfield begin playing field sports during pre-kindergarten years. Many continue playing through high school and college. During these years there is exposure to crumb rubber when playing on artificial turf fields. The exposure to the crumb rubber infill depends on many variables. When children run on or fall on artificial turf, the crumb rubber infill is aerosolized (1). The children may inhale or ingest the rubber crumbs. Cuts on the skin after falls may allow crumb rubber chemicals entry into the blood stream. Exposure and potential after-effect of the crumb rubber depend on the frequency that children play on the artificial turf fields, their ages, the behaviors of the players, the type of sport played, the field position and whether protective gear is worn (2). The physical properties of the turf also affect exposure (2).

The Town currently has three artificial turfed athletic fields and plans to build four more artificial turfed athletic fields. Two fields are proposed in the fields behind Edison Intermediate School, one on the Board of Education property on Elm Street and one in Memorial Park. The fields are intended for use by Westfield school athletics, private sports organizations in town (Westfield Soccer Association, Westfield Lacrosse Club, PAL Football, etc.) and by the WHS marching band. Unfortunately, it is not just children playing field sports or in the band who will be exposed to crumb rubber in the artificial turf on the fields behind Edison Intermediate School. Students attending Edison Intermediate School will be the children in Westfield most exposed to crumb rubber compared to those playing field sports. If the artificial turf fields behind Edison Intermediate School are built, the only natural grass available for outdoor daily physical education and lunch recess will be the varsity baseball field. It will be difficult for children attending Edison Intermediate School to avoid using artificial turf fields if the Edison Field Project is completed. Many of these children are prepubescent and would be expected to be more sensitive to chemicals in artificial turf compared to older teens.



Artificial turf typically uses “crumb rubber” as infill, a product prepared from discarded rubber tires (3). A typical field requires 20,000 tires of crumb rubber infill (4). In 2016 the EPA launched a multi-agency research effort to study health concerns related to playing on artificial turf fields (5). Although no health risks were known at the time, it was noted that existing studies on crumb rubber were too limited to make conclusions. Recently public health researchers have described concerns about the endocrine disrupting activity of chemicals in artificial turf (6, 7). The National Institute of Environmental Health Services reports that endocrine disruptors are associated with abnormalities in immunity, puberty, and reproduction (8). It is particularly noteworthy that there is an association between exposure to phthalates, parabens, phenols, and triclocarban, chemicals found in numerous consumer products,