



**Testimony**

Of

**Nancy Clark**

**Assistant Commissioner, Environmental Disease Prevention  
New York City Department of Health and Mental Hygiene**

before the

**New York City Council Committee on Parks and Recreation**

regarding

**Intro 918**

**Surface Areas of Playgrounds and Playing Fields**

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Council Chambers  
City Hall  
New York City

Good morning Chairperson Foster and members of the Parks Committee. My name is Nancy Clark and I am the Assistant Commissioner for Environmental Disease Prevention for the Department of Health and Mental Hygiene (the Health Department). Also with us today, is Liam Kavanagh, First Deputy Commissioner of the Department of Parks and Recreation. Thank you for the opportunity to discuss health and safety issues related to synthetic surfaces used in playgrounds and playing fields.

I will begin by describing health and safety concerns related to synthetic turf materials, what the Health Department has done to address these concerns, and what steps the City is taking to provide safe play areas in parks. I will also provide specific comments on Intro 918. Deputy Commissioner Kavanagh will provide comments on the bills introduced on synthetic turf and provide more details on actions taken by the Parks Department.

Understanding the risks and benefits of using synthetic materials in playing fields and playgrounds is important to assure safe use of public parks and to promote opportunities for children and adults to participate in healthy, physical activities. Physical exercise, along with good nutrition, promotes a healthy weight and combats obesity. The key benefits of synthetic turf fields and play areas are: more safe playing time than grass, dirt and asphalt surfaces, low cost maintenance, and no need for chemical fertilizers, fungicides, herbicides, or fuel-powered maintenance equipment.

Over the past two years, the Health Department has assisted the Parks Department in gaining a fuller understanding of potential health and safety issues related to synthetic materials used in playing fields and playgrounds. In May, 2008, we issued a comprehensive report, "A Review of the Potential Health and Safety Risks from Synthetic Turf Fields Containing Crumb Rubber Infill" prepared for the Department by TRC, an environmental consulting firm. This report, available to the public on our website, reviewed scientific studies from researchers in the United States and Europe and focused on the chemical components of crumb rubber infill made from recycled automobile tires and potential health and safety risks associated with crumb rubber fields, including heat-related illness, physical injuries and bacterial infections. The report concluded that, though certain chemical contaminants, such as volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and heavy metals, may be found in crumb rubber, 'the degree of exposure is likely to be too small through ingestion, dermal or inhalation to increase the risk for any health effect'. The studies that were reviewed were conducted using very conservative approaches and accounted for the special vulnerabilities of children. In addition, the report also found that neither bacterial infections nor physical injuries were significantly related to synthetic turf fields.

The report, however, did, determine that the primary health concern with the use of synthetic turf fields is potential for causing health effects related to heat stress and dehydration. The Health Department recommended that the Parks Department and other field operators assess feasibility of adding shaded areas and easy access to drinking water near fields and to educate field managers, coaches and users on the potential for and prevention of heat-related illness. In follow-up, the Health Department has provided input to the Parks Department on the content and

posting of signs near synthetic turf fields as well as at playgrounds with heat retaining surfaces. These signs, which are posted, warn park goers to wear appropriate shoes and clothing.

The report also identified a lack of available information on potential airborne exposures related to outdoor synthetic turf fields. To follow up, the Health Department conducted an Air Quality Survey with the assistance of the Parks Department and an environmental consultant. This survey was designed to assess potential inhalation exposures to volatile organic chemicals, fine particulate matter, and lead and other heavy metals in the breathing zones of young children (3 feet above the ground) at an older synthetic turf field, a newer turf field and at a natural grass field. The survey showed that there were no significant inhalational exposures to chemicals, metals or fine particulate matter.

The Air Quality Survey's most important finding was the identification of an elevated lead level in the crumb rubber infill of the artificial turf at Thomas Jefferson Park in upper Manhattan. The lead level found at this field exceeded 400 ppm, the EPA level for lead in bare soil in children's play areas. The EPA level is set to protect children from adverse health effects associated with ingestion of lead in soil from hand to mouth contact that young children engage in during normal activities. As a result of the elevated lead level, the Parks Department closed the field and is replacing it with a new surface. The Parks Department, with assistance from the Health Department, has also tested the crumb rubber infill for lead in remaining synthetic fields that contain crumb rubber. Elevated lead levels were not found in any of the other crumb rubber fields tested. The source of the lead contamination at the Thomas Jefferson Park field is not known but is most likely due to external contamination. Lead is a persistent environmental pollutant from its former use in gasoline, paint and other products.

Over the past year, concerns have been raised about lead content in the grass blades in synthetic turf fields. This problem has been associated with older generation, nylon carpet-style fields that do not contain crumb rubber infill. Lead pigments were identified in the grass blades of the nylon carpets. If grass blades are damaged or deteriorated, lead dust can be created on the surface of the carpet. The Parks Department had two older, carpet-style nylon fields which were inspected last spring. The carpet fibers were found to be intact, and no lead dust hazards were identified. The Health Department advised the Parks Department to continue monitoring these fields in accordance with federal Centers for Disease Control recommendations to inspect the condition of artificial turf carpets and test those that show deteriorated or damaged condition. The Parks Department continuously monitors the conditions of its turf fields and out of an abundance of caution is testing all carpet-style fields and play areas (those without crumb rubber) for lead. These results will be available over the coming weeks.

The Health Department report on synthetic turf fields also recommended that the Parks Department and other field operators adopt purchasing protocols for the selection and purchase of synthetic turf products. Such protocols should contain requirements for suppliers and manufacturers to provide information on the chemical contents, heat absorbency properties, injury factors and other relevant health and safety information. The Parks Department has incorporated this recommendation into its purchasing guidelines and has developed model specifications. As synthetic turf technologies evolve, continuous review of product properties is

necessary to assess the health and safety aspects of the products used in the city's fields and playgrounds.

I would now like to address Intro 918 which would require the Health Department along with Parks Department to review all playground and playing field surfaces and to assess health and safety risks. In addition, Intro 918 would require the two agencies to submit recommendations on the most appropriate surfacing materials.

The Health Department and the Parks Department have established a solid partnership around the assessment of synthetic materials used in city parks and playgrounds. The proactive measures taken by the two agencies are a direct reflection of this partnership. As noted earlier the Parks Department has already developed model specifications which reflect expert input from parks, health and environmental experts across several agencies. The Parks Department evaluates synthetic turf products for a range of health and safety concerns, some of which are outside of the expertise of the Health Department. Legislating the relationship between these two city agencies would be counterproductive and likely to result in a duplication of efforts. Requiring Health Department review of turf materials could impede flexibility needed to design site specific field installations for both Parks and other agencies. Finally, developing static recommendations for synthetic turf materials would be challenging, given how quickly technology changes and new products emerge. For these reasons the Department opposes Intro 918.

Both the Parks and Health Departments participate in ongoing meetings and share information with other agencies in New York State and other localities concerned with synthetic turf issues. The two agencies have participated in research activities sponsored by the Health Department, the United States Environmental Protection Agency and the New York State Department of Environmental Conservation to promote better understanding of health and safety issues of these materials.

Opportunities for active recreation and physical activity have never been more important in our city. Over the past 20 years, obesity levels have doubled in the United States, and in New York City, obesity is epidemic. More than half of adult New Yorkers are overweight or obese, and nearly half of all elementary school children in New York City are either overweight or obese. Unhealthy weight gain, even during childhood, is related to diabetes, heart disease, asthma, and depression. As you are aware, New York City leads the nation in addressing healthy lifestyles and has taken bold actions to improve the availability of healthy foods in restaurants and in the community. Supporting the City's strategies to continue to improve nutrition and extend physical exercise opportunities is the best way to promote healthy weight and prevent chronic health problems related to obesity.

I thank you for the opportunity to discuss this important issue. We look forward to continuing our work with the Council towards the goal of making New York City a better, safer and healthier city.