

EXECUTIVE SUMMARY: REPORT OF DR. LAURA C. GREEN ON MEDIA REPORTS ALLEGING CANCER RISK ASSOCIATED WITH SYNTHETIC TURF.

Shaw Industries, Inc. recently retained Dr. Laura C. Green, a noted toxicologist, to review claims in the media that synthetic turf athletic fields that utilize crumb-rubber as an infill material may pose a risk of cancer to those who use them, particularly children and adolescents.

Dr. Green holds a B.A. with honors from the Department of Chemistry at Wellesley College (1975) and a Ph.D. from the Massachusetts Institute of Technology (1981). She is a diplomate of the American Board of Toxicology (D.A.B.T.). Dr. Green has performed original research, published, and consulted in the areas of chemical carcinogenesis, toxicology and pharmacology, food chemistry, analytical chemistry, risk assessment, and regulatory policy. She also served as Research Director of the Scientific Conflict Mapping Project at the Harvard University School of Public Health, during which time she co-authored the text, *In Search of Safety: Chemicals and Cancer Risk*. Dr. Green has also been retained by schools and municipalities to advise them on the health aspects of synthetic turf athletic and recreation facilities.

Dr. Green has reviewed the available literature and studies on the safety of synthetic turf conducted both in the United States and abroad. She also evaluated the epidemiological literature regarding cancer in children and adolescents. Utilizing this background, as well as generally accepted toxicological principles, Dr. Green examined the claims being made by a vocal and small minority in the media about the alleged risks of cancer associated with synthetic turf fields. Dr. Green also reviewed the limited information that those individuals and organizations have used to support their claims.

Dr. Green has focused on reports of a possible “cancer cluster” of young, female soccer players whose cancers were allegedly caused by an exposure to the crumb-rubber infill used on synthetic turf athletic fields. The following are some of the highlights of Dr. Green’s report:

There is no reliable evidence to indicate that the reported cases of cancer in soccer players constitute an actual cancer cluster, since no reports have been made regarding the ages, sexes, or races of the individuals, the particular diseases at issue, the number of cases expected in any given population, or the particular exposures of the group.

The types of cancers reported, lymphomas and leukemias, are among the most common types of cancer that develop in children and adolescents.

The federal Centers for Disease Control and Prevention (CDC) has investigated more than 100 cancer clusters, many of them involving children, and has never found an environmental cause. Instead, these clusters appear to arise due to chance.

The type of leukemia most prevalent in childhood (namely acute lymphocytic leukemia – ALL), all types of lymphomas, and brain tumors are not known to be caused by cigarette smoking. Since smoking does not cause these cancers, it is highly unlikely that the small exposures to chemicals from synthetic turf athletic fields could do so.

Lymphomas are not known to be caused by environmental exposures to chemicals.

The leukemia most prevalent in children (ALL) is not known to be caused by environmental exposures to chemicals.

No type of cancer in adolescents is known to be caused by exposure to chemicals.

Scientific studies have shown that the quality of outdoor air in contact with synthetic turf athletic fields is not materially different from outdoor air in general.

After reviewing the literature and the claims being made that synthetic turf can cause cancer in children and adolescents, Dr. Green comes to the same conclusion that many scientists before her have reached:

I find no reliable basis for the notion that crumb rubber in-filled synthetic turf fields pose a significant risk of cancer. Several groups of investigators, from academia, government, and consulting firms, have performed environmental monitoring and/or modeling studies of crumb rubber and synthetic turf fields, and have reached the same conclusion.

If you would like to obtain a copy of Dr. Green's report, or if you have any further questions, please contact Phil Barlow at .