

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

Shaw Industries, Inc. recently retained Dr. Laura Green, a noted toxicologist, to review claims in the media that synthetic turf athletic fields which utilize crumb-rubber as an infill material may pose a risk of cancer to those who use them, particularly children 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. Among her many credentials, 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*. Prior to being hired by Shaw, Dr. Green has also been retained by certain schools to advise them on the utilization of synthetic turf for their 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. Utilizing this background, as well as generally accepted toxicological principles and well-known studies, 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 reported data, limited though it may be, that those individuals and organizations have used to support their claims.

Dr. Green has focused upon the allegations made regarding an alleged “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 little evidence to indicate that the reported cases of cancer in soccer players constitute an actual cancer cluster since no reports have been made on ages, sexes, or races of the individuals, the particular diseases at issue, 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.
- Cancer clusters among children have been extensively investigated, but studies of such cancer clusters have never established an environmental cause.
- The type of leukemia most present 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 incomprehensible 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.
- The chemical exposure from synthetic turf athletic fields has been shown to be similar to background levels in ambient air and thus, there is no reason to believe such exposure is a potential cause of cancer.

After reviewing the literature and the claims being made that synthetic turf is a possible cause of cancer in children and adolescents, Dr. Green comes to the same conclusion that many 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.