

QUESTIONS & ANSWERS ABOUT
PCB CONTAMINATION AT
GREENWICH HIGH SCHOOL

BACKGROUND



In July, polychlorinated biphenyls (PCBs) were discovered in deep soil under the West parking lot pavement during a construction project at the high school. As a precaution, the Superintendent closed all the athletic fields soon after the PCBs were found. Finding the PCBs has prompted more sampling to learn the extent of PCBs on the school property. The CT Department of Public Health is working with the Greenwich Health Department, the Greenwich Board of Education, the Town of Greenwich, the CT Department of Energy and Environmental Protection and the U.S. Environmental Protection Agency to address environmental and public health concerns regarding the contamination.

WHAT WAS FOUND IN THE SOIL IN THE PARKING LOT AND ATHLETIC FIELDS?

Samples have been taken in deep (6" and below) and surface soil. Deep soil had PCB concentrations that greatly exceeded the state soil cleanup standard of 1 part per million. However, since these high concentrations were not found at the surface, it is not a concern for students and staff. Preliminary sampling of the natural grass fields indicates that PCB concentrations in surface soil did not exceed state cleanup standards. Surface soil in some limited spots surrounding the fields have PCB and some arsenic and chlordane concentrations that exceed state cleanup standards, but they are mostly covered with grass and are not subject to frequent, intense activity. There is one isolated surface soil sample in Field 2 that had high levels of chlordane, but it is covered with natural grass, greatly reducing exposure. These areas are currently fenced and covered to prevent access until they can be cleaned up.

WHAT ARE PCBs?

Polychlorinated biphenyls (PCBs) are mixtures of up to 209 individual chlorinated compounds (known as congeners). There are no known natural sources of PCBs. PCBs are either oily liquids or solids that are colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs have no known smell or taste. PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. The manufacture of PCBs was stopped in the U.S. in 1977 because of evidence they build up in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils. PCBs are also found in building materials such as caulk as well as other products.

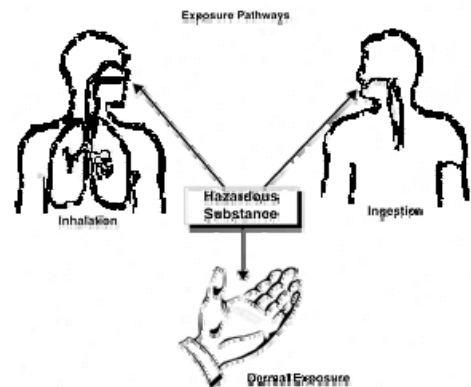
WHAT ARE THE POTENTIAL HEALTH EFFECTS FROM EXPOSURE TO PCBs?

High levels, like those found in workplaces where PCBs were used, can result in skin rashes and acne, and liver damage. Studies of worker exposure have linked PCB exposures to liver cancer. There may be also some behavioral and immune effects in children exposed in utero because their mothers were exposed to PCBs. In animal studies, exposure to PCBs affects the immune system, reproductive system, the GI tract, and has resulted in some changes in behavior and acne-like skin conditions.

UNDERSTANDING EXPOSURES TO CHEMICALS

Any chemical that enters your body can be harmful if you take in too much. Whether your health will be affected by a chemical that gets into your body depends on several factors.

- How much of the substance you take in.
- How long you are exposed to it.
- How it enters the body (for example, through eating, drinking, breathing, or touching).
- Your age, general health and other individual traits.
- Other exposures you have to the same or similar substances.
- How toxic the substance is.



WHAT MEASURES ARE BEING TAKEN TO PROTECT CHILDREN & STAFF FROM CONTAMINATED SOIL?

As a precaution, the Superintendent closed the athletic fields soon after the PCBs were discovered. Contractors have used fencing and ground cover to prevent anyone from having access to the fields and the soil that has been excavated. They are also using dust control measures and have been monitoring ambient air onsite to make sure construction activities are not impacting air quality. In addition, areas with surface soil contamination are being fenced off until the contaminated soil can be removed.

IF MY CHILD USED THE ATHLETIC FIELDS IN THE PAST, SHOULD WE BE CONCERNED ABOUT HEALTH EFFECTS?

Soil sampling has indicated that the most highly PCB-contaminated soil is present below the surface. Playing or working on the fields does not result in contact with deep soil. Therefore, past use of the fields is not a cause for concern. The places around the fields where surface soil contains PCBs and arsenic above CT's cleanup standards are mostly covered with grass which greatly reduces contact with soil. These areas are not part of the active playing surface of the fields.

FOR MORE INFORMATION:

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