

UPDATE ON PRESSURE TREATED WOOD

August 2006



Connecticut Department of Public Health
Environmental & Occupational Health
Assessment Program
410 Capitol Avenue MS# 11EOH, PO Box 340308
Hartford, CT 06134-0308
(860) 509-7742 www.state.ct.us/dph

Does Arsenic Leach From Pressure Treated Wood Used in Docks & Pilings, and Is This a Health Concern?

Background

We know that wood treated with the preservative *chromated copper arsenate (CCA)* can leach small amounts of arsenic into the environment over time. Rainwater can cause the leaching into surrounding soils, and can also leave a residue of the preservative on the surface of the wood. The Connecticut Department of Public Health (DPH) has cautioned parents and caregivers about exposures to young children when playing on this type of pressure treated wood (PTW). Our fact sheet, *Pesticides Used In Pressure-Treated Wood*, contains information about the use of sealants to prevent arsenic leaching from PTW, along with other information and recommendations.*

Recently DPH has been asked about health risks related to arsenic exposure from PTW used in docks and pilings. The same concerns about children ingesting arsenic residue on wood surfaces due to hand-to-mouth contact exist for docks and pilings as for decks and playscapes. However, the additional question is whether arsenic can leach out of the wood and contaminant water or sediment. As described below, it appears that arsenic does leach from PTW docks and pilings and may contaminate the nearby sediment. However, there is insufficient information to understand how much contamination is possible in lakes, and whether this can create a health risk. **Contamination of the water itself does not seem to be a problem.**

Potential Concerns

As previously described for decks and playscapes,* arsenic can leach from PTW docks and pilings, leaving a surface residue that can be taken up on skin. This can become a health concern if ingested. Note that very little of the arsenic would pass through the skin itself. **Treating docks with sealants should aid in minimizing exposure.**

There is some evidence that CCA used on wood in shallow water marine environments can accumulate in nearby sediments. The extent of sediment contamination depends upon many factors including:

- age of the pressure treated wood
- the degree of dilution, caused by sediments being moved through the action of wind and water currents
- acidity of the water
- dissolved oxygen content of the water and sediments
- sediment make-up (sand does not retain arsenic well, but fine particle sediment (silt or clay) generally does)

While there is some evidence that sediment can be affected by arsenic leaching from docks and pilings, there is not enough information to determine if this causes a significant health concern. This is especially so, since the necessary data from lakes has not been collected to date. However, if fine-grained sediment is located next to PTW pilings, it is possible that these sediments could have elevated concentrations of arsenic. Under these conditions it may be prudent to make sure children are rinsed free of sediment when leaving these areas. This is less important if the area near the pilings is large-grained sand.

For More Information

Health Questions:

Connecticut Department of Public Health
Environmental & Occupational Health Assessment Program
860-509-7742

Questions About Handling & Sealing of CCA-treated wood and Alternative Materials:

Connecticut Agricultural Experiment Station: 203-974-8602

**Pesticides Used In Pressure-Treated Wood* Fact Sheet:
<http://www.dph.state.ct.us/Publications/BCH/EEOH/pressurtr.pdf>