

Chromated Copper Arsenate-Treated Wood (Pressure Treated Wood)

What is chromated copper arsenate (CCA)-treated wood?

Chromated copper arsenate-treated wood is often referred to as pressure treated wood. CCA is a chemical wood preservative that protects wood from damage by insects, mould, sun and water.

Chromium, copper and arsenic can leach out of CCA-treated wood. Small amounts of these chemicals have been measured on wood surfaces and in soil and ground cover near the wood.

The risk of illness from exposure to chemicals leaching from CCA-treated wood is low. The following information has been prepared to assist those who wish to minimize their exposure to CCA-treated wood chemicals.

What is CCA-treated wood used for?

CCA-treated wood is commonly used for outdoor structures such as decks, fences, picnic tables and play structures. It is also used for landscaping. New pressure-treated wood has a greenish tint. Since the green tint fades with time, it may be hard to tell if an older wooden deck or play structure was made from CCA-treated wood. Check with the builder. Manufacturers are now labelling all new CCA-treated wood to indicate that it contains arsenic.

Is CCA-treated wood a health concern?

The risk of immediate illness from short-term exposure to chemicals from CCA-treated wood is low. Although arsenic can be poisonous at very high doses, the amounts measured on CCA-treated wood are a thousand times less than a lethal dose. The other two elements in CCA, copper and chromium, are relatively less toxic to humans.

While small amounts of arsenic may not be harmful to health in the short-term, it is best to avoid unnecessary exposure because arsenic is a known human carcinogen.

It is not yet known whether long-term exposure to arsenic leaching from CCA-treated wood is sufficient to increase the risk of cancer or other health effects.

How are people exposed to arsenic from CCA-treated wood?

- People can be exposed to arsenic through residues present on wood surfaces and from the soil or sand beneath structures made of CCA-treated wood.
- Arsenic can be ingested through hand-to-mouth activity after contact with wood surfaces and nearby soil that contains arsenic leached from CCA-treated wood.

Who can be exposed?

- Young children (under 6 years of age) who play on CCA-treated wood structures are likely to have the greatest exposure because of their frequent hand-to-mouth activity. They are also most likely to play for periods of time underneath play structures where they could be exposed to arsenic in the soil.
- People who spend considerable amount of time eating on CCA-treated wood picnic tables, or playing on or working with CCA-treated wood may also be exposed.

What precautions can I take to reduce exposure?

- Coat the structure with a penetrating oil-based wood-finishing sealant to significantly reduce any leaching chemicals. Re-apply sealant every one or two years, depending on wear and weathering.
- Wash hands after contact with CCA-treated wood. This is particularly important for young children, who tend to put their hands in their mouths.
- Use a tablecloth when eating on a picnic table made of CCA-treated wood.
- Fruit and vegetable garden boxes made of CCA-treated wood should have a plastic lining on the base and sides of the box to separate the wood from the soil.
- Never burn CCA-treated wood or use it as compost or mulch. Burning CCA-treated wood is a serious health concern as it releases harmful amounts of chemicals into the air and the ash.

Are there alternatives to CCA-treated wood?

Consider avoiding CCA-treated wood to build structures for children. Look for alternatives to CCA-treated wood such as cedar, redwood, metal, and plastic. Consult your local hardware or building store for wood treated with non-arsenic containing preservatives.

What should I do if I have an existing structure made of CCA-treated wood?

If you have an existing structure (e.g. deck or playground equipment) made of CCA-treated wood, it is not necessary to remove the structure. To minimize exposure, use a penetrating oil-based wood-finishing sealant on the structure. Re-apply sealant every one or two years, depending on wear and weathering. This can help reduce the amount of arsenic released by as much as 90%. Consult your local hardware or building store for appropriate products.

Elevated arsenic levels may exist in the soil or sand beneath structures made of CCA-treated wood. If there is only bare soil or sand under the structure, consider the following:

- Fence or screen off areas underneath decks to prevent access by children and pets.
- Plant a dense ground cover (e.g. grass) to provide a barrier between the soil and human/animal contact.
- If exposed to soil or sand beneath the wood, remove shoes or wipe feet before entering the house.

What's the City of Toronto doing in City Parks?

Parks and Recreation tested arsenic levels in soil and on the wood surface at 217 parks and city-owned child care centres with CCA-treated wood play structures. Structures located at all child care centres had very low levels of arsenic (below any action level). Soil below the play structures at 31 parks was above federal guidelines for arsenic and requires replacement. As a precautionary measure, the remediation plan also recommended sealing the wood in these play structures as well as those in 26 other parks where tests indicated elevated levels of arsenic on the wood surface.

Sealing and soil replacement is taking place over the summer and fall of 2003.

A list of playgrounds under remediation can be found at:
http://www.toronto.ca/parks/pdf/CCA_final_chart_012403.pdf

Where can I get more information?

For more information contact:

Toronto Public Health, 416-338-7600

Health Canada – Pest Management Information Service, (toll free 1-800-267-6315)
Fact sheet on Chromated Copper Arsenate (CCA) Treated Wood
http://www.hc-sc.gc.ca/pmra-arla/english/pdf/fact/fs_cca-june2003-e.pdf

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