

# pressure-treated **Wood**

*a common sense guide*



## **Old pressure-treated lumber, chromated copper arsenate – CCA for short – contains arsenic.**

Swallowing arsenic is known to cause cancer in humans. Manufacture of CCA-treated wood for residential use halted December 31, 2003, through an agreement between manufacturers and the U.S. Environmental Protection Agency (EPA).<sup>1</sup>

Arsenic-treated lumber was used wherever outdoor wood was needed—decks, playgrounds, fences, docks, retaining walls, picnic tables, even treehouses. The arsenic was used as a pesticide to keep the wood from being consumed by termites and other wood-eating organisms.

## **Should I be concerned about arsenic-treated wood?**

**The EPA is currently studying whether CCA-treated wood poses an unreasonable risk to public health.**



At this time, the EPA does not recommend that people remove existing structures made with CCA-treated wood or the soil surrounding those structures. Until their final study is out, the agency recommends that people reduce

their potential exposure to arsenic.<sup>1</sup> The major health concern is that daily, long-term contact with arsenic leached from CCA-treated wood might lead to an increased risk of lung, bladder, skin, and other cancers or other health effects.

Touching arsenic-treated wood is not considered a significant health hazard; ingesting it is the main concern. Many children

put their hands in their mouths, and their hands may have arsenic on them if they play on CCA-treated wood structures.<sup>2</sup> Tests have shown that the arsenic comes off the wood, whether it is wet or dry. Even old playground equipment may still have high levels of arsenic. The soils below decks and play structures can also become contaminated.<sup>3</sup>

**“We are not recommending that people take out existing CCA-treated wood structures, but take steps to minimize risk of human contact (especially children).”**

—Dr. Diana Yu, MD, MSPH  
Thurston County Health Officer

## *How can I reduce my family's exposure to arsenic from treated wood?*

**Wash up.** Wash hands thoroughly with soap and water (not a waterless hand cleaner) after playing on or handling arsenic-treated wood.

**Keep children and pets out from underneath decks.** Do not store toys or tools under decks made of arsenic-treated wood.

**Avoid growing vegetables in beds lined with arsenic-treated wood.** If you do raise vegetables in a treated-wood raised bed, keep your rows at least 15 inches away from the timbers. You could plant flowers next to the wood, instead. You could also install a plastic liner between the boards and the soil.

**Place a tablecloth on picnic tables made of arsenic-treated wood** to prevent foods from taking up arsenic.

**Avoid pressure-washing arsenic-treated wood,** and avoid using an acid deck wash or brightener that contains chlorine. These treatments speed up the leaching of arsenic out of the wood.

**Wear gloves, goggles, and a dust mask** when sanding, sawing, or drilling arsenic-treated wood.<sup>6</sup>

(over)

Another concern is for gardeners who have planted vegetables in raised beds built of arsenic-treated lumber. Fortunately, arsenic does not move far through soil. Tests show that while the level of arsenic is high in soil right next to the wood, by 15 inches it drops down to acceptable levels.<sup>4</sup> It is unlikely that vegetables grown in raised beds will pick up enough arsenic to be a health concern. Arsenic-contaminated soil can stick to root crops such as carrots and potatoes. Peeling root crops or scrubbing with a brush and water helps remove this arsenic.<sup>4,5</sup>

## How do I identify arsenic-treated wood?

**Arsenic-treated lumber has a red tag stapled on the end that says, "Caution: Arsenic is in the preservative applied to this wood."**<sup>6</sup> You can usually recognize CCA pressure-treated wood by its greenish tint, especially on the cut end, and staple-size slits that line the wood. However, the greenish tint fades with time, and not all CCA pressure-treated

wood has the slits. "Wolmanized" wood, which is treated with CCA, looks like regular lumber. If you are uncertain, check with the builder or manufacturer. If your deck or swing set is more than three years old,

unless it was made of cedar, it was probably made with arsenic-treated wood.

## Would a sealant help?

**You may want to consider applying a seal every other year.** Some studies suggest that applying a penetrating coating (such as a water or oil-based, semi-transparent stain or sealant) at least every other year will limit the amount of arsenic that leaches out.<sup>2</sup> It is not recommended to use paints or urethanes that will peel or that require the wood to be sanded. Keep children away when applying oil-based products, and follow all label instructions carefully.

## What are the alternatives?

**New, safer chemically treated wood is available to replace the arsenic-treated lumber.** One treatment is called ACQ, for ammoniacal copper quaternary. The wood meets the same standards for above ground and ground contact as arsenic-treated wood. Local lumber stores stock ACQ-treated

lumber. Most lumber stores also sell wood substitutes made of recycled plastic that can be used for decking, but not for structural purposes such as posts and beams. Plastic lumber can be sawed and drilled, is extremely durable, and requires little maintenance. Other options are to use metal, concrete, or a wood that naturally repels insects such as cedar, juniper, or ironwood.

## What about disposal?

The Thurston County Waste and Recovery Center accepts treated lumber for disposal. Arsenic-treated lumber would be a hazardous waste except that a special state exemption allows it to be disposed of in lined landfills. Garbage brought to the Waste and Recovery Center is sent to the Roosevelt Regional Landfill in Klickitat County.

Do not bring arsenic-treated wood to the compost site. **Never burn treated lumber**—the smoke and ash are highly toxic. **Do not chip it for use as**

## How can I learn more?

Call Thurston County Public Health and Social Services, Environmental Health Division at 360-754-4111 (TDD 360-754-2933) or visit our website at [www.co.thurston.wa.us/health/ehrp/cca.html](http://www.co.thurston.wa.us/health/ehrp/cca.html) for more detailed information, and for updates on the latest recommendations.

To receive this document in an alternative format, please contact the Thurston County Environmental Health Division.

## References

<sup>1</sup>EPA Office of Pesticide Programs. 2003. Topical and Chemical Fact Sheets. "Manufacturers to use New Wood Preservatives, Replacing Most Residential Uses of CCA."

[www.epa.gov/oppad001/reregistration/cca/](http://www.epa.gov/oppad001/reregistration/cca/)

<sup>2</sup>Consumer Product Safety Commission. 2003. "CCA-Treated Wood Used in Playground Equipment."  
[www.cpsc.gov/phth/ccafact.html](http://www.cpsc.gov/phth/ccafact.html)

<sup>3</sup>David Stilwell. 1999. "Arsenic in Pressure-Treated Wood." The Connecticut Agricultural Experiment Station, New Haven, CT.  
[www.ct.gov/caes/cwp/view.asp?a=2824&q=378050](http://www.ct.gov/caes/cwp/view.asp?a=2824&q=378050)

<sup>4</sup>Farhana Alamgir, Deborah Allan, and Carl Rosen. 2001. "Arsenic Availability from CCA-Treated Lumber and Uptake by Plants." Department of Soil, Water, and Climate, University of Minnesota.  
[www.extension.umn.edu/yardandgarden/YGLNews/YGLN-June0101.html#as](http://www.extension.umn.edu/yardandgarden/YGLNews/YGLN-June0101.html#as)

<sup>5</sup>WSU Extension document on gardening in soils contaminated with arsenic and lead.  
<http://cru.cahe.wsu.edu/CEPublications/eb1884/eb1884.pdf>

<sup>6</sup>EPA Office of Pesticide Programs. 2003. "Consumer Safety Information Sheet: Inorganic Arsenical Pressure-Treated Wood."  
[www.epa.gov/oppad001/reregistration/cca/cca\\_consumer\\_safety.htm](http://www.epa.gov/oppad001/reregistration/cca/cca_consumer_safety.htm)



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