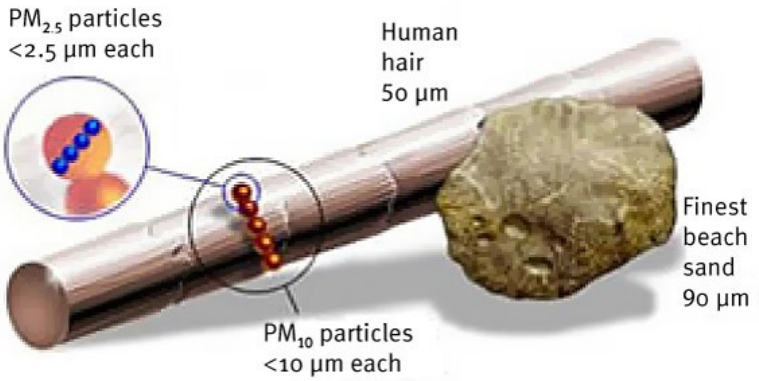
Why Wood Dust Is Harmful



Most woodworkers know that dust is a major nuisance in the shop. But how many realize that excessive exposure to wood dust poses a health risk as well?

Frequent exposure to large amounts of wood dust can lead to sinus and lung problems, or worse. And it's the finer dust particles - those smaller than 10 microns - that are the most hazardous. To put that size in perspective, consider that a human hair is about 100 microns thick, while airborne dust particles smaller than 20 microns are invisible to the naked eye.

> **Wood dust is known to be a human carcinogen...**
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> On December 11th of 2002, wood dust was added to the federal government's list of compounds known to cause cancer in humans. The report is issued every two years by the National Toxicology Program, a division of the U.S. Department of Health and Human Services.
>
> – U.S. Dept. of Health and Human Services. National Toxicology Program
> 10th Edition of Biennial Report on Carcinogens. Dec. 2002

How Dust Affects Your Body

Our lungs have a built-in cleaning system that works efficiently under most conditions to protect delicate tissues from the damage fine dust causes. The trouble starts when your respiratory system must deal with large amounts of "respirable dust" (below 10 microns in size). Heavy exposure to this dust can overwhelm the lung's natural defenses and lead to inflammation and swelling of the airways, which cause symptoms such as shortness of breath, increased sputum and coughing, frequent colds, nosebleeds, sinus trouble, or bronchitis.

Also, wood dust may contain allergens and toxins such as pesticides, fungi (molds), and chemicals which can trigger allergic reactions. Many tropical hardwoods can be especially irritating, and Western red cedar can cause allergic asthma.

Wood Dust Toxicity

This includes woods whose dust has been identified as being Toxic as well as what reaction they illicit and their potency.

Source: Robert Woodcock, RN, BSN, CEN

Wood Type	Reaction	Potency
Bald Cypress	Sensitizer	Low
Olivewood	Irritant/Sensitizer	High
Beech	Sensitizer/Cancer Causing	Medium
Opepe	Sensitizer	Low
Birch	Sensitizer	Medium
Padauk	Sensitizer	Low
Black Locust	Irritant	High
Pau Ferro	Sensitizer	Low
Blackwood	Sensitizer	Medium
Peroba Roas	Irritant	Medium
Boxwood	Sensitizer	Medium
Purple Heart	Sensitizer	Medium
Cashew	Sensitizer	Low
Quebracho	Irritant/Cancer Causing/Sensitizer/Hypersensitivity Pneumonia	Medium
Cocobolo	Irritant/Sensitizer	High
Redwood	Sensitizer/Hypersensitivity Pneumonia/Cancer Causing	Medium
Dahoma	Irritant	Medium
Rosewoods	Irritant/Sensitizer	Very High
Ebony	Irritant/Sensitizer	Medium
Satinwood	Irritant	High
Elm	Irritant	Low
Sassafras	Sensitizer/Direct Toxin/C	Low
Goncalo Alves	Sensitizer	Medium
Sequoia	Irritant	Low
Greenheart	Sensitizer	High
Snakewood	Irritant	Medium
Hemlock	Cancer Causing	Unknown
Spruce	Sensitizer	Low
Iroko	Irritant/Sensitizer/Hypersensitivity Pneumonia	High
Teak	Sensitizer/Hypersensitivity Pneumonia	Medium
Mahogany	Sensitizer/Hypersensitivity Pneumonia	Low
Walnut, black	Sensitizer	Medium
Mansonia	Irritant/Sensitizer	High
Wenge	Sensitizer	Medium
Maple	Sensitizer/Hypersensitivity Pneumonia	High
Willow	Sensitizer	Low
Myrtle	Sensitizer	Medium
W. Red Cedar	Sensitizer	High
Oak	Sensitizer/Cancer Causing	Medium
Yew	Irritant/Direct Toxin	Very High
Obeche	Irritant/Sensitizer	High
Zebrawood	Sensitizer	Medium
Oleander	Direct Toxin	Very High