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Lung Disease & Respiratory Health Center

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10 Risky Jobs for Your Lungs

These jobs may have lung risks for some workers.

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WebMD Feature

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Your [lungs](#) work hard. Most adults take more than 20,000 breaths a day. But just how well your lungs do their job may be affected by the job you do.

Chemicals. Germs. Tobacco smoke and dirt. Fibers, dust, and even things you might not think are dangerous can damage your airway and threaten your lungs.

"The lungs are complex organs," says Philip Harber, MD, MPH, professor of public health at the University of Arizona in Tucson. "Occupational and environmental exposures can lead to scarring or fibrosis, [asthma](#), [COPD](#), and infection or [cancer](#)."

The good news: Many on-the-job lung dangers are preventable. Depending on your line of work, making certain changes can be key: Improve ventilation, wear protective equipment, change the way you do your work, and learn more about hazards, for examples.

Here are 10 jobs where precautions may help you avoid work-related lung damage.

[Slideshow: 10 Worst Cities for Asthma](#)

1. Bartending and Waitressing

[Secondhand smoke](#) has been linked to [lung cancer](#). It remains a threat to workers in cities where [smoking](#) hasn't been banned in public places. Casino workers also can find themselves in a cloud of smoke.

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No one's going to wear a respirator while serving martinis or dealing a blackjack game. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings won't keep nonsmokers from being exposed.

Short of working to change policy, the best solution may be to find another job.

"Unfortunately, the individual worker has limited options," says Susanna Von Essen, MD. She's a University of Nebraska Medical Center professor of internal medicine in the division of pulmonary, critical care, [sleep](#), and allergy.

2. Housekeeping and Cleaning

Some cleaning supplies, even so-called "green" or "natural" products, have harmful chemicals that have been linked with developing asthma.

"Cleaners are reactive chemicals, meaning that they react with dirt and also with your lung tissues," Von Essen says.

Some release volatile organic compounds, which can contribute to chronic respiratory problems and allergic reactions. Read labels and follow instructions.

Consider using "simple cleaning agents like vinegar and water or baking soda," Von Essen says. Open windows and doors to keep the area well ventilated, too.

3. Health Care

Doctors, nurses, and other people who work in hospitals, medical offices, or nursing homes are at increased risk for [lung diseases](#) such as [tuberculosis](#), [influenza](#), and severe acute respiratory syndrome (SARS).

So, health care workers should keep up with [immunizations](#) (including the [flu vaccine](#)) that the [CDC recommends](#) for them.

Health care workers may also develop asthma if latex is used in gloves or other supplies. Latex-free synthetic gloves are an alternative.

4. Hair Styling

Certain [hair-coloring](#) agents can lead to [occupational asthma](#). Some salon hair-straightening products contain [formaldehyde](#), a known carcinogen. It's also a strong [eye](#), nose, throat, and lung irritant.

Good ventilation is important. Because wearing a respirator might cause appointments to cancel, know what's in the products you're working with. If they're not safe, find a safer product.

5. Manufacturing

Some factory workers risk getting asthma or making their existing asthma worse. Asthma not caused by work but made worse by it affects as many as 25% of adults with asthma, Harber says.

Factory workers can be exposed to everything from inhaled metals in foundries to silica or fine sand, which can lead to silicosis, a disease that scars the lung, or increased risk of lung cancer.

A lung disorder called "popcorn lung," or bronchiolitis obliterans, has been seen in plant workers exposed to some of the flavoring chemicals used to make microwave popcorn. Again, respirators and proper ventilation are key for those workers. (No risk of "popcorn lung" has been seen in people who eat that popcorn.)

6. Construction

Workers who demolish old buildings or do remodeling can be exposed to [asbestos](#) used as insulation around [pipes](#) or in floor tiles.

Even minimal exposure to its microscopic fibers has been linked to a variety of problems. One is [mesothelioma](#), a form of cancer, Von Essen says.

Exposure also seems to raise the risk of small-cell lung cancer and can lead to asbestosis, or scarring of the lung. Removal should be left to trained and licensed crews.

"Know where the asbestos is," Von Essen says. "Follow all the rules and don't take chances."

7. Farming

Working with crops and animals can lead to several disorders. [Hypersensitivity pneumonitis](#) is a rare but serious problem caused by repeated exposures to mold-contaminated grain or hay. The lung's air sacs become inflamed and may develop scar tissue.

Grain in metal bins can get moldy. Breathing dust from this grain can lead to [fevers](#), chills, and a flu-like illness called "organic dust toxic syndrome." Farmers also are more likely to report a [cough](#) and chest tightness.

"We think about 30% of farmers who grow crops in this way have had that at some point," Von Essen says. Workers in hog and chicken barns sometimes get an asthma-like syndrome.

"Dust and ammonia levels together seem to be risk factors," she says. Keep grain from getting damp, ensure adequate ventilation, and wear a respirator.

8. Auto Body Spray Painting

People who work in auto body shops are often exposed to chemicals known as isocyanates. They're a significant cause of occupational asthma.

"It's frequently a career-ending disease where they need to leave their profession," Harber says.

Using quality [respirators](#) that are appropriate for your task can lessen the risk. It also helps to enclose the area being sprayed and to have a ventilated exhaust system. Better yet, replace hazardous materials with safer ones.

9. Firefighting

People who battle blazes are exposed not only to the fire, but also to other materials, including burning plastics and chemicals. Firefighters can significantly lower their risk of lung disease and other problems by using a "self-contained breathing apparatus" (SCBA). These devices should also be used during "mop up" or the clean-up period.

"Many of the chemicals are still in the air," Harber says. Ventilation also is critical.

10. Coal Mining

Underground miners are at risk for everything from [bronchitis](#) to pneumoconiosis, or "black lung." It's a chronic condition caused by inhaling coal dust that becomes embedded in the lungs, causing them to harden and make breathing very hard.

"This can cause progressive massive fibrosis and can kill people," Von Essen says.

Again, protective equipment can limit the amount of dust inhaled.

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SOURCES:

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Susanna Von Essen, MD, professor of internal medicine, division of pulmonary, critical care, sleep & allergy, University of Nebraska Medical Center, Omaha, Neb.
American Cancer Society: "Secondhand Smoke."
American Lung Association: "Cleaning Supplies and Household Chemicals."
CDC: "Hair, Formaldehyde, and Industrial Hygiene."
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