



Working Safely with Asbestos In Clutch And Brake Linings

Protect Yourself With Safe Work Practices

Here are some things you can do right away to protect yourself and your family from asbestos exposure:

- ✓ Work with your employer to ensure that you are not overexposed to asbestos in your workplace. Sometimes this may include special ventilation equipment or the use of a properly-fitted respirator with a HEPA filter. Simple face masks do not filter out asbestos fibers!
- ✓ Never use an air hose, dry brush, rag or ordinary shop-vac - they all stir-up asbestos dust. Wet cleaning and vacuuming with a HEPA-system are much safer.
- ✓ Minimize dust levels by slowly lathe-turning the brake linings, rather than grinding. Talk to your employer about installing exhaust ventilation with a HEPA filter wherever asbestos-containing material is machined.
- ✓ When using a wet brush, thoroughly wet the wheel hub and back of the assembly first. After removing the drum, wash all components with the brush. If using a spray, keep the nozzle far enough away from the surface to keep fibers from splashing back at you in the liquid.
- ✓ If you must hammer drums, place a pan with water beneath the wheel to catch the dust.
- ✓ Avoid stirring up asbestos while using air tools to loosen lug nuts or remove tires.
- ✓ Don't smoke while working with clutches and brakes.
- ✓ Wash your hands and face before you eat, drink or smoke. Never use the same rags used to clean brakes.
- ✓ Eat, drink, and smoke only in areas free of asbestos dust.
- ✓ Use separate work clothes and shoes/boots while at work. Disposable coveralls are the best choice!
- ✓ Keep your street clothes in a clean place.
- ✓ Don't wear your work clothes and shoes/boots home. Talk to your employer about laundering your clothes at work. (Avoid taking asbestos-contaminated materials home, where the fibers can harm your family!)
- ✓ If possible, shower at work before going home.

Your Employer's Responsibilities

Under federal and state regulations (Chapter 296-62 of the Washington Administrative Code), employers must ensure that workers are protected from harmful asbestos exposure. These regulations give employers several options for controlling the release of asbestos dust from brake and clutch service. There are two preferred control methods:

- **Negative pressure enclosure or HEPA vacuum system** - a tightly sealed box with sleeves and ports allows mechanics to see and handle brake and clutch parts. A HEPA vacuum system collects the dust in the very fine HEPA filter for disposal.
- **Low pressure wet method** - a container is placed under the brake or clutch assembly to capture liquids. The assembly is gently flooded with a water-based solution containing either a detergent/surfactant or organic solvent. The wet method for shops handling five or fewer brakes or clutches per week is a simpler approved procedure. Using a low-pressure fine mist (from a spray bottle for example), the brake or clutch assembly is thoroughly wetted and wiped with a cloth.

Employers can use other methods as long as they provide equivalent protection.

Your Rights as a Worker

Your employer is responsible for providing you with the following:

- ✓ A safe and healthful workplace. Your employer is required to comply with standards established to prevent harmful exposure to asbestos. Your employer must provide protective equipment at no cost to employees;
- ✓ Upon request, a copy of air monitoring results or other objective information used to assess exposure (such as manufacturers' equipment specifications or information on the asbestos content of the materials you're working with);
- ✓ A copy of the asbestos standard (upon request);
- ✓ Training. Your employer is required to train you how to work with asbestos safely;
- ✓ Medical monitoring. Your employer must provide a medical examination for any worker exposed above the Permissible Exposure Limit (PEL) of 0.1 fibers/cc averaged over an 8-hour workshift.

You have the right to file a confidential complaint with the Department of Labor and Industries (L&I) if you believe there may be a serious hazard. You also have the right to file a complaint if you believe you are being discriminated against for exercising one of your rights under the Washington Industrial Safety and Health Act (WISHA). It is illegal for an employer to discriminate against a worker for bringing up safety or health concerns or for filing a complaint with L & I. You may call 1-800-4BESAFE (1-800-423-7233) or the nearest L&I office for assistance.

Help with Waste Management

Solid Waste. Try to recycle brake shoes and clutch discs containing asbestos through the vendors that sell them. In some counties, intact brake shoes and clutch discs can be put in the dumpster. Call your local solid waste utility for more information about disposal.

Sludges. Filters and dusts should be wetted and placed in impermeable bags or containers. Contact your local solid waste utility for more information.

Liquid Wastes. Liquid wastes containing asbestos dust are best managed as oily wastewater or hazardous waste. Contact your local sewer utility or refer to the phone book yellow pages under "Waste Disposal - Hazardous" for a vendor to dispose of these liquid wastes. To avoid dangerous situations or additional disposal fees, do not use flammable or chlorinated solvents near brake washers.

**This Man may be Exposing
Himself and His Family to Asbestos**





Take the Time To be Asbestos Safe . . . Follow the Safety Procedures Inside.

You often have no way of knowing. Product information on labels and Material Safety Data Sheets (MSDS) will often have information on asbestos content when it is greater than 1% of a material. However, when servicing installed brakes and clutches, the appropriate labels and MSDS will not be available. **When handling these products, you should assume that they contain asbestos unless the manufacturer or an appropriate testing laboratory has certified that the material is asbestos-free.**

Do the Brake and Clutch Linings I Work with Contain Asbestos?

What is Asbestos?

Asbestos is the common name for a group of mineral fibers that range in color from white, green, brown, or blue. These fibers vary in length and may be straight or curled. You cannot smell or taste asbestos fibers. Because they are resistant to pressure, heat, and most chemicals, asbestos fibers have been mined for use in a wide range of man-made products, including several materials used in automotive repair.

Why is Asbestos Still Used in Brake and Clutch Linings?

Although many uses of asbestos have been banned under Environmental Protection Agency (EPA) and Consumer Product Safety Commission (CPSC) regulations, some materials remain legal for sale and use. The materials that were not banned included those in which asbestos fibers are generally well bound in the material, including:

- Automatic transmission components,
- Clutch facings,
- Disc brake pads,
- Drum brake linings,
- Brake blocks, and
- Gaskets.

This pamphlet was prepared by the Safety & Health Assessment & Research for Prevention (SHARP) program at the Washington State Department of Labor and Industries. SHARP performs research and analysis of workplace health and safety issues. Call 1-888-667-4277 or 360-902-5669. Visit SHARP's website at www.Lni.wa.gov/sharp.

Additional Resources

Your Safety Officer or Industrial Hygienist

Find out if your work area has been checked for asbestos dust or and find out how you can avoid exposure by using protective equipment and engineering controls.

L&I's WISHA Services

The WISHA Services Division of L&I enforces the asbestos standard. This standard contains rules for employers on using asbestos safely and protecting workers from the harmful effects of asbestos. WISHA offers free assistance and information to both employers and employees upon request. WISHA also investigates complaints from workers who feel they are being overexposed to asbestos or other chemicals. For more information call, 1-800-4BESAFE (1-800-423-7233) or visit WISHA's web site at www.lni.wa.gov/wisha.

The Environmental Protection Agency

The Environmental Protection Agency (EPA) has a web site dedicated to asbestos issues (www.epa.gov/asbestos/index.htm). For more information, call (206) 553-1200 or 1-800-424-4EPA.

Equipment and Service Providers

Several firms lease, service and/or sell equipment that meets WISHA requirements for asbestos. Encourage your employer to talk to several vendors, and compare them on such items as services provided, warranties, replacement fluids, hazardous material, and waste disposal.

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What Asbestos Can Do to You.

The following lung diseases have been seen in workers exposed to asbestos. They generally develop years after exposure:

- Lung cancer - the most common cause of death associated with asbestos exposure. A smoker who works with asbestos is 10 times more likely to die from lung cancer than a non-smoker who works with asbestos.
- Mesothelioma - a deadly cancer that is lining of the chest and abdominal cavities.
- Asbestosis - When microscopic asbestos fibers are caught in lung tissue, they cause scars. When this scarring spreads, the lungs cannot expand and contract as easily as they should. The victim finds it harder and harder to breathe. Other symptoms include coughing and chest pain. The condition is permanent and can progress to disability and death.

The most common test used to determine if you have been exposed to asbestos is a chest x-ray. The x-ray cannot detect the asbestos fibers themselves, but can detect early signs of lung disease caused by asbestos.

Unfortunatly, workers who have been exposed to asbestos for years often feel fine. Usually, symptoms take between 15 and 30 years to develop.

Do I have an Asbestos-Related Disease?

Medical studies have shown a direct correlation between asbestos exposure and increased risk of several deadly lung diseases. Enough asbestos is present in brake drum dust to be of concern during certain brake and clutch servicing procedures.

Asbestos is released into the air when brakes and clutches are serviced. You cannot see these fibers in the air. Dust masks will not prevent you from inhaling them. These fibers can then travel through your respiratory system and become permanently lodged in your lungs. Asbestos fibers are chemically resistant and the body cannot break down and expel them as with other particles.

Why Should I Care About Asbestos?

Read This - It May Save Your Life

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