



Mercury in Fluorescent Lighting: Avoidable Health Risks & Actionable Solutions

CONSUMERS CAN CHOOSE ENERGY-EFFICIENT, MERCURY-FREE LED LIGHTING

In October 2021, the Clean Lighting Coalition in partnership with Mercury Policy Project and Responsible Purchasing Network released **Mercury in Fluorescent Lighting: Unnecessary Health Risks & Actionable Solutions**. The report outlines the environmental and health impacts of fluorescent lighting, highlights the many compelling advantages of transitioning to mercury-free alternatives, and gives actionable solutions to accelerate the phase out mercury-added lamps in the United States.



RISKS OF MERCURY-CONTAINING FLUORESCENT LIGHTING

- **All fluorescent lighting products contain mercury and release this toxic substance whenever bulbs break.** Mercury is highly toxic to humans and is listed by the World Health Organization as one of the 10 chemicals or groups of chemicals of major public health concern.
- **There is no “safe” level of exposure to mercury. Mercury is a highly toxic element with no known safe level of exposure.** When a fluorescent lamp breaks, the clean-up recommendations detailed by the US Environmental Protection Agency (EPA) are ‘above and beyond’ what most people are aware of and prepared to do.
- **Exposure to mercury is not an easily diagnosed condition.** Symptoms include tremors, emotional changes, insomnia, neuromuscular changes, headaches, and poor performance on tests of mental acuity. Higher exposures can also cause kidney effects, respiratory failure and death.



BENEFITS OF ENERGY-EFFICIENT, MERCURY-FREE LED ALTERNATIVES

- **LED lamps are widely available and can replace virtually all types of fluorescent lamps – from general purpose lighting applications to floodlights and decorative bulbs.** Across the United States, LEDs are widely available in supermarkets, hardware stores, retail and online shops, giving consumers direct, easy access to mercury-free, energy-efficient lighting for their homes and businesses.
- **LEDs are approximately 50% more energy-efficient and last 2-3 times longer than fluorescents and other traditional lighting products.** The U.S. EPA’s ENERGY STAR program reports that LED lamps can produce the same brightness as incandescent and halogen lamps while using 70-90% less electricity. Additionally, while quality CFLs last about 10,000 hours, quality LEDs last about 25,000 hours.
- **LEDs immediately reach full brightness when switched on, rather than delaying and flickering for full minutes.** These innovative technologies also come in the same range of color temperature and color rendering indexes as the mercury bulbs they replace.

“Consumers have the power to choose more energy-efficient, mercury-free LED bulbs. Over the past decade, the availability, price and performance of LEDs have improved to the point where it is now considered the most cost-effective and reliable lighting option in the U.S. marketplace. It’s time to replace our outdated, toxic bulbs with innovative, clean and cost-effective LED options for a better lighting experience.”

ALICIA CULVER, EXECUTIVE DIRECTOR, RESPONSIBLE PURCHASING NETWORK

COMPARISON OF COMMON FLUORESCENT LIGHTING TO LED OPTIONS

LAMP TYPE	TYPICAL HOUSEHOLD COMPACT FLUORESCENT LAMP (CFL)		TYPICAL WORKPLACE T8 LINEAR FLUORESCENT LAMP (LFL)	
	TYPICAL HOUSEHOLD COMPACT FLUORESCENT LAMP (CFL)	REPLACEMENT LED	TYPICAL WORKPLACE T8 LINEAR FLUORESCENT LAMP (LFL)	REPLACEMENT LED
Watts for equivalent light	15W	7.5W	32W	15.5W
Energy efficiency	Low	High	Low	High
Typical lifespan*	4.8 years	10.3 years	5.5 years	13.7 years
Yearly electricity cost*	\$3.04	\$1.52	\$13.51	\$6.55

CONSUMERS INCLUDING SCHOOLS, CHILD CARE & HEALTHCARE FACILITIES, PUBLIC HOUSING FACILITIES AND THE GENERAL PUBLIC CAN MITIGATE THE RISKS OF MERCURY IN LIGHTING BY:

- **Replace all fluorescent lighting equipment with LED lamps, retrofit kits and luminaires.** Immediate action should be taken in schools, healthcare facilities, public housing, child care centers, and other facilities where pregnant or nursing people and children live or gather or if their lighting equipment contains old magnetic fluorescent ballasts (pre-1979) that could leak PCBs.
- **Replace incandescent and halogen lamps with LEDs to lower their electricity bills and reduce emissions from power plants** that contribute to climate change and mercury build-up in the environment. Utility rebates may be available to offset the cost.
- **Ensure that fluorescent lamps are disposed of properly.** Mercury-added lamps currently in use present serious health and environmental risks and must be handled with care. Earth911 and other websites help consumers identify permitted lamp recycling and disposal sites nationwide.
- **Advocate for federal, state and local policies to phase out the manufacture and sale of fluorescent lamps in the United States – and globally – and hasten the transition to LEDs.** This includes the adoption of procurement policies that prohibit public agencies from purchasing fluorescent lamps (except when no LED replacement is available) and commitments by lighting manufacturers and retailers to stop selling mercury-added lamps.

For further details see Recommendations (page 32) of [the report](#).

SUPPORT THE TRANSITION TO MERCURY-FREE LED LIGHTING

The Clean Lighting Coalition (CLiC) is a global coalition of stakeholders working to accelerate the global transition to clean, affordable, super-efficient LED lighting and end the use of toxic, mercury-based lighting. Sign [our Pledge](#) in support of the phase-out of the manufacture, sale, distribution, and/or installation of fluorescent lighting.

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