

# FURNITURE FIRES STARTED BY CIGARETTES ARE THE MOST DEADLY



SILENT SPRING INSTITUTE  
Researching the Environment and Women's Health

## WE NEED SAFETY STANDARDS THAT ARE DEMONSTRATED TO BE EFFECTIVE



STANDARDS THAT RELY ON CHEMICAL FLAME RETARDANTS DON'T PROTECT PEOPLE AGAINST THE MOST DEADLY TYPES OF FURNITURE FIRES.

When it comes to furniture fires, adding flame retardant chemicals to furniture does not protect consumers from the most deadly types of fires, according to a comprehensive analysis of fire data by Silent Spring Institute. The findings call into question fire safety regulations that compel manufacturers to add toxic flame retardants to furniture and suggest other non-toxic measures are more effective and could save more lives.

Exposure to flame retardants has been linked with a host of health problems including impaired brain development, reproductive problems, and cancers.

The study authors analyzed data from the Massachusetts Fire Incident Reporting System on more than 34,000 house fires in the state. Reporting in the *American Journal of Public Health*, the researchers found:

- Between 2003 and 2016, **furniture fires were rare, accounting for only 2.2% of all house fires**. Yet, they were significantly deadlier than other kinds of fires.
- Among furniture fires, those caused by smoking products were the deadliest. The **odds of someone dying in a furniture fire caused by smoking was three times greater than in a furniture fire caused by an open flame** (such as a candle or match).

The widespread use of flame retardants in furniture began in the mid-1970s when California adopted a flammability standard called TB 117. This required the foam inside the furniture to withstand exposure to an open flame for 12 seconds without catching fire. In order to meet this standard, manufacturers began adding high levels of flame retardants to furniture foam.

However, since the 1980s, the proportion of deaths from furniture fires caused by an open flame has not gone down in the U.S., which shows the use of flame retardants in furniture has not been effective.

To protect consumers and reduce fire deaths, we should focus on safety measures that address fires caused by cigarettes. These measures include standards that require furniture coverings to withstand ignition from a smoldering cigarette, standards to improve fire-safe cigarettes, smoking bans, smoke detectors responsive to smoldering fires, and sprinkler systems—all of which can be achieved without the use of toxic chemicals .

**Reference:** Rodgers, K.M., L.R. Swetschinski, R.E. Dodson, H.R. Alpert, J.M. Fleming, and R.A. Rudel. 2019. **Health Toll from Open Flame and Cigarette-Started Fires on Flame-Retardant Furniture in Massachusetts, 2003–2016.** *American Journal of Public Health*. DOI:10.2105/AJPH.2019.305157

FLAME RETARDANTS HAVE NOT REDUCED THE PROPORTION OF DEATHS FROM FURNITURE FIRES CAUSED BY AN OPEN FLAME.