


Today millions of people will tune in to watch the first 2016 Presidential Debate. I'm popping the popcorn for what promises to be quite the spectacle! But while the debate takes center stage, other events make today significant as well. Most important for me, September 26th marks the 12th annual Mesothelioma Awareness Day in the United States. In recognition of this day, this blog post addresses the primary cause of mesothelioma: asbestos. 

We've all heard stories about the dangers of exposure to asbestos. TV ads solicit clients harmed by the carcinogenic effects of the substance. Inhaling asbestos fibers can cause cancer of the lung cavity lining (pleural mesothelioma) two to three decades later. Less well known, ingesting these fibers can result in a related cancer of the abdominal sac lining (peritoneal mesothelioma), also decades later. These cancers are mostly fatal, with expected survival times from diagnosis estimated at approximately [12 to 18 months](#). State of the art treatments today include potentially life-altering surgeries and targeted chemotherapy that tend to extend life expectancy of mesothelioma patients by only a few years. Funding for and research on treatment methods have lagged behind other more common types of cancer, perhaps because of the relatively low number of cases each year. Pleural mesothelioma affects approximately 2500 people each year in the United States, and peritoneal mesothelioma affects about 250 per year.

Asbestos is a catch-all term for a collection of mineral fibers that have proven to be versatile building and manufacturing materials. These fibers easily break into airborne dust particles that people ingest or inhale. Although commonly released during construction and ship building, asbestos exposure endangers more than just employees of those industries. The substance has been found in thousands of [different household products](#), including: vinyl flooring, patching compounds, textured paints, acoustic ceiling tiles, roofing shingles and siding, home appliances, fire-retardant clothing, cement pipes, and stove, furnace, pipe, wall, and ceiling insulation, to name a few. Building demolition could release asbestos particles into the air. For instance, the twin towers contained approximately 400 tons of asbestos, much of which was [released](#) when the buildings collapsed. Even something as simple as using a ceiling fan in a room with old asbestos-containing ceilings could release the airborne particles.

In addition to the continued presence of asbestos in existing buildings and household products, the United States imports asbestos-containing products. United States asbestos consumption from imports in 2015 was estimated at approximately 360 tons, down from 400 tons in 2014 and almost 1000 tons in 2013. While this trend points in the right direction, it isn't enough.

Researchers (both within and outside industry) have documented a clear link between asbestos exposure and a decades-delayed onset of mesothelioma and other related diseases. Asbestos use dates back thousands of years, but expanded dramatically with the industrial revolution. Epidemiologists began linking asbestos and lung diseases in the early 1900s, England implemented dust control regulations in the 1930s, and in 1951 the U.S. Department of Labor established exposure standards and began regulating the substance. Other agencies followed suit: EPA listed asbestos as a hazardous air pollutant under the Clean Air Act in 1971, and the Consumer Product Safety Commission banned the substance's use in artificial fireplace embers and wall patching compounds in 1977.

In 1976 Congress passed the original Toxic Substances Control Act (TSCA), giving EPA authority to regulate toxic chemicals like asbestos. TSCA proved little help, however, in eliminating asbestos across the United States. Under the Act, EPA could regulate existing substances like asbestos if it had a reasonable basis to conclude among other things that the substance posed an unreasonable risk and that the proposed regulation was the least burdensome restriction possible. EPA issued its Asbestos Ban and Phase-Out Rule in 1989, noting that it "is well-recognized that asbestos is a human carcinogen and is one of the most hazardous substances to which humans are exposed in both occupational and non-occupational settings." But industry successfully challenged the rule in court in [Corrosion Proof Fittings](#). This decision effectively halted efforts to ban asbestos in the United States, as EPA made no subsequent attempts to ban the substance. Speaking recently about the 1976 TSCA, President Obama said "the system was so complex, so burdensome that our country hasn't even been able to uphold a ban on asbestos."

Will the Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act that Obama signed into law this June adequately facilitate stronger asbestos regulations and a possible ban? The Act's proponents certainly hope so. The Lautenberg Act reforms TSCA for the first time in forty years. My colleagues have previously [analyzed the TSCA reform efforts](#) and articulated [possible weaknesses](#) in the revised language. Despite these potential weaknesses, the Lautenberg Act breathes new life into efforts to ban asbestos. The new requirements give EPA [clear and enforceable deadlines](#) for evaluating existing chemicals. In fact, by mid-December EPA must select 10 high-priority chemicals that will be evaluated and then regulated under the Act if shown to present unreasonable risks. Senator Barbara Boxer [wrote a letter](#) last month to EPA Administrator Gina McCarthy forcefully urging the Administrator to place asbestos among the 10 high-priority chemicals that EPA will evaluate first. Boxer pointed to the "overwhelming" evidence of the dangers of asbestos and noted the estimated 15,000 annual asbestos-related disease deaths in the United States in arguing that the United States join the 56 nations that have already banned asbestos (with limited

exceptions).

Over the coming months we will learn more about how EPA plans to move forward with its evaluation of existing chemicals under the reformed TSCA. Asbestos' continued presence and use creates needless health risks in the United States, and EPA is long overdue to take aggressive action to ban this carcinogenic substance. So today, while I prepare for tonight's debate, I'll spend Mesothelioma Awareness Day hoping that the EPA takes up Senator Boxer's request to act quickly to ban asbestos.