

## **Fire retardant clothing and asthma**

In the United States, Consumer Product Safety Commission (CPSC) in 1971 standardized children's sleepwear specifying that garments exposed to an open flame for 3 seconds must self extinguish. After that government enforced that children's sleepwear sized 9 months to 14 years must meet specified flammability requirements.

Polyester is a commonly used fabric for kids' pajamas because it has inherent fire resistance properties. All other fabrics are treated with fire retardant chemicals to make it fire resistant but most of us are unaware that these chemicals used to treat pajamas' fabric are potentially harmful to our children's health. The fabrics that are treated with harsh chemical finishes and flame retardants can cause headaches, skin rashes, allergic reactions and respiratory conditions.

Earlier, tris (2, 3-dibromopropyl) phosphate, commonly referred to as TDBPP, tris-BP or TRIS, was used as a fire retardant chemical but it was found that it can cause cancer and therefore was officially banned in 1977.

These days halogenated hydrocarbons (chlorine and bromine), inorganic flame retardants (antimony oxides), and phosphate-based compounds are used as fire retardant chemical. According to the [EPA](#), chlorine breathing small amounts of chlorine for short periods of time adversely affects the human respiratory system.

Polybrominated diphenylethers (PBDEs), used in the fabric treatment as a fire retardant has harmful effect on the endocrine system leading to behavioural changes and unbalanced hormone secretion. The chemical is banned in Europe because it causes headaches, muscle pain, skin rashes, depression, flu-like symptoms, cancers, and respiratory ailments including asthma. In a study conducted by Environmental Working Group concluded that the concentration of PBDE in young children is significantly higher than their mothers.

In the United States, about 20 million people have asthma and nearly 9 million of them are children. If you want to save your child suffering from asthma the best available option is to use polyester or snug fitting cotton.