



Association pour la santé environnementale du Québec  
Environmental Health Association of Québec

## ECO-JOURNAL

September 2020

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### How to Choose Healthy Furniture

When furnishing a home, most of us are looking for comfort, style and affordability. However, we are forgetting one very important aspect: our health and safety. In order to make the right choices for our health, we must be aware of the risk of chemical exposure due to various products found in furniture. To reduce contact with toxic emissions, consumers should be aware of substances frequently found in furniture, including formaldehyde, a type of volatile organic compound (VOC), phthalates, flame retardants as well as various chemical coatings.

Although wood is a natural material, it releases volatile substances such as aldehydes and terpenoids. However, in wooden furniture the greater danger to our health lies in the products added during the manufacturing process. Formaldehyde is found in the glue or resin used in the building of wood structures, in finishing materials such as paint or varnish and in furniture

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stuffing. With a high concentration of this gas in a room, some people may complain of burning of the eyes, nose and throat. Long-term exposures can also cause respiratory problems and allergies. The presence of formaldehyde in furniture is harmful to health as it gives off VOCs in low concentrations over long periods of time. Exposure to this product can therefore cause chronic problems such as damage to the liver, kidneys and nervous system. Formaldehyde can also cause cancer when exposed in high concentrations. To lessen exposure, it is important to have very good ventilation including cross-ventilation from open windows.

Additionally, textiles and padded furniture also contain substances that are likely to be released during their use. These include water, stain and wrinkle resistant coatings and flame retardants. The coatings used are made up of perfluorooctanoic acid (PFOA) which cause many harmful effects. Their exposure has been linked to high cholesterol, increased liver enzymes, decreased vaccination response, thyroid disorders, preeclampsia, and cancer (US environmental protection agency, 2017). Flame retardants contain either Tris (2-chloro-isopropyl) phosphate (TCPPs) or Hexabromocyclododecanes (HBCDs). These products are used to make materials less flammable. The impacts of these products on our health are still uncertain. However, some studies show negative effects on development and reproduction as well as increasing the risk of cancer. For children's products, the use of certain types of flame retardants is prohibited in Canada; however, they are still permitted in several other products such as mattresses, pillows and furniture.

How to reduce or avoid exposure to chemicals due to our furniture?

- Are you unsure if your furniture contains flame retardants? You can contact the manufacturer and ask questions! Are you buying new furniture? The Éco Habitation website provides a list of businesses offering furniture options without flame retardants. This page also lists companies that offer to replace toxic components in your used furniture. A great way to make healthy choices at a low cost. You can find more information here: <https://www.ecohabitation.com/guides/1291/un-sofa-sain-sans-retardateur-de-flammes-ca-existe-encore/>
- Look for the GREENGARD certification when you shop. This ensures that toxic emissions do not exceed established limits. Some products may still be present, but at small levels. Another interesting certification to consider is “No added formaldehyde”. This symbol ensures that the glues used in the furniture contain no formaldehyde (CAA Québec, 2020). 
- Opt for furniture made of solid wood, or formaldehyde-free plywood to eliminate exposure to formaldehyde. Avoid alternatives such as PVC plastics as they release phthalates. These can be identified as plastics with recycling code 3.
- Apply a water-based sealer to any exposed unfinished wooden surfaces to block toxic emissions.

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