



## *Why buy an organic mattress?*

Babies spend up to 16 hours a day in their cribs, so your baby's crib should be a cozy, comforting place for her to rest. Mattresses made of organic materials are best for baby because they are free of harsh chemicals that can be inhaled by your baby's developing lungs.

### **What you should know:**

Manufacturers lack standards for disclosure of materials, thus, you may want to carefully consider the mattress you place in your baby's crib. Traditional mattresses can release Volatile Organic Compounds (VOCs) and flame retardant chemicals that can be inhaled by your baby's lungs. Mattresses made of organic materials are clear of these chemicals and can be free of allergens such as latex and wool as well.

### **What is a typical mattress made of?**

1. **Polyurethane foam** - emits Volatile Organic Compounds (VOCs). It is a likely carcinogen that can cause respiratory disruption, headaches, nausea, fatigue & dizziness.<sup>1</sup> Polyurethane foam frequently contains harmful chemicals such as formaldehyde, benzene, and toluene, which are known to harm the central nervous system.<sup>2</sup>
2. **Halogenated fire retardants** - toxic chemicals added due to the high flammability of polyurethane foam. Certain retardants (PBDEs & PentaBDE) have already been banned in Europe & California. PBDE has been associated with hyperactivity and neurobehavioral alterations.<sup>3</sup> 10-30% of the weight of a conventional mattress will be PBDE's.<sup>4</sup> A report by Environment California Research and Policy Center (ECRPC) found that PBDEs might be especially harmful to infants and fetuses. PBDE is not bound to the foam, so it leaches out from the mattress into the air.
3. **Polyvinyl chloride (PVC)** - a combination of chlorine and petroleum, is the surface material used in most baby mattresses. It is usually softened with phthalates.

4. **Natural Latex** - According to the FDA and Asthma and Allergen Foundation of America, Natural Latex is highly allergenic.

5. **Phthalates** - added to soften the PVC - According to the EPA, is likely to be both a carcinogen, hormone disruptor and are known to have a range of birth defects in lab animals. A study published in the American Academy of Pediatrics determined that “phthalates are animal carcinogens and can cause fetal death, malformations and reproductive toxicity in laboratory animals”.<sup>5</sup> As of Feb. 10th, 2009, the Consumer Product Safety Improvement Act has banned three kinds of phthalates for use in children’s products, including mattresses.

6. **Other chemical additives** - lead, cadmium, phosphorus, sulfur, ammonia, and toluene.

## FAQ

**Don't I need those flame retardant chemicals to keep my baby safe?**

A law was created in 1973 requiring that mattresses meet requirements for cigarette-ignition resistance. Many people were starting fires by smoking in their beds, a problem that should not be faced by your baby.

In addition, most organic mattresses include a layer of naturally flame retardant material, rendering the use of chemicals unnecessary.

**What about mattress pads? Don't they protect my baby?**

Mattresses ‘breathe’ so covering them with a pad will not prevent your baby from being exposed to the chemicals. In order to make them waterproof, many mattress pads come with a vinyl cover made of PVC and added phthalates for flexibility. Instead, look for an all natural organic crib mattress and pad. Some use polyethylene to make them waterproof, one of the most non-toxic and environmentally friendly plastics out there.

**Why are organic mattresses more expensive?**

Polyurethane foam and polyester are both made of petrochemicals that emit toxic fumes, which can cause allergies as well as immune and reproductive problems. These chemicals are cheap to work with, which is why non-organic mattresses are so much cheaper.

I sleep on a traditional mattress and am fine, why does my baby need an organic one?

The same amounts of chemicals have a greater effect on an infant's small lungs than on our own. According to an Environmental Working Group study, in 19 of 20 families the concentrations of PBDE flame retardant chemicals were significantly higher in 1.5 – 4 year old children than their mothers.<sup>6</sup>

I have an old crib mattress I want to reuse. Should I invest in a new one?

Polyurethane foam disintegrates over time releasing tiny particles that can cause upper respiratory problems. The longer you hold on to the mattress, the more the foam breaks down and releases VOCs. As of February 10, 2009, the Consumer Product Safety Improvement Act has banned three kinds of phthalates for use in children's mattresses. If you purchased your mattress before this time it most likely was not up to the latest standards and it should be replaced.

### Resources:

<sup>1</sup> “Do You Know What’s In Your Baby’s Mattress?”; Healthy Child, Healthy World – [www.healthychild.org](http://www.healthychild.org)

<sup>2</sup> U.S Environmental Protection Agency, “Toluene”,(2000), [www.epa.gov/ttn/atw/hlthef/toluene.html](http://www.epa.gov/ttn/atw/hlthef/toluene.html)

<sup>3</sup> Greene, Alan M.D., Raising Baby Green, p. 107.

<sup>4</sup> Barnett, Sloan Green Goes with Everything, pg. 126

<sup>5</sup> Shea, Katherine M. MD MPH and the Committee on Environmental Health. “Pediatric Exposure and Potential Toxicity of Phthalate Plasticizers.” American Academy of Pediatrics Volume 111 No. 6 June 2003 pg. 1467

<sup>6</sup> [www.ewg.org](http://www.ewg.org)