

Is Your Bed Making You Sick?

Do You Spend 1/3 of Your Life Not Only Immersed in Toxic Chemicals and Noxious Gasses, but Inhaling Fecal Matter?

When you get a new mattress or pillow, do you love that “new bed smell?” Don’t breathe in too deeply.

That “new” smell consists of gasses being released into the air, and they could be ruining your health. When chemicals reach certain temperatures, they release gasses, this is called “outgassing.” Many of these gasses are toxic. This outgassing continues long after the smell has disappeared. You will breathe these gasses for as long as you own that mattress, for as long as your head is on that pillow.

Why are there chemicals in your bed?

Read the label on your mattress. It very probably is made from polyurethane, most mattresses are. This material has thousands of modern uses. It can be formed into the softest foam, or into sturdy pilings. It is found everywhere. However it has a serious drawback. Polyurethane burns like gasoline when set on fire. The Consumers Union reports that a sofa made from polyurethane and set on fire will engulf a living room and fill the house with dark smoke and toxic gasses in just four minutes.

This problem was “solved” by soaking the polyurethane in fire retardant chemicals.

The good news is: these mattresses no longer burn like kerosene soaked rags. The bad news is: the fire retardant chemicals are causing serious health problems. The release of poisonous gasses by just three of the more common fire-retardant chemicals, arsenic, antimony, and phosphorus have been linked by scientists to Sudden Infant Death Syndrome (SIDS). (See our special report: *What Do These Things Have in Common: An Epidemic of Baby Deaths in 1890, an Ambassador’s Sudden Illness, Swamp Gas, and Old Mattresses? The Answer Could Save Your Baby’s Life!*)

What hazardous chemicals are you and your family being exposed to?

The manufacturers aren't required to put the fire retardant chemicals on the label. The most commonly used chemicals, and their health hazards are:

- **Boric acid** – Inhaling the dust can cause headaches, coughing, dizziness or difficulty breathing. Prolong contact may cause skin sensitization.
- **PBDE's** – are prohibited in the European Union after high levels were found in breast milk. California has decided to phase out the use of two of these, penta and octa PBDE by 2008. PBDEs accumulate in the body tissues and cause thyroid hormone disruption, permanent learning and memory impairment, decreased sperm count, fetal malformations, behavioral changes, hearing deficiencies and possibly cancer. U.S. women have levels in their body tissues 50 times more than European women. (For more eye-opening information, click on the link at the end of this report to "*Our Stolen Future*" Website containing results of a study of PBDEs).
- **Formaldehyde** – the U.S. Consumer Product and Safety Commission states in a report on urethane insulation, "Many health complaints, including irritation of the eyes, nose, throat, and skin, headaches and shortness of breath, have been reported to CPSC over the last several years by consumers who have had UFFI in their homes. Less frequently reported symptoms include chest pain, diarrhea, nausea, fatigue, and sleep disturbance. Studies have shown that formaldehyde in liquid solution (and possibly formaldehyde gas) can, through repeated exposure, cause sensitization in certain individuals. When exposed to formaldehyde gas, sensitized individuals may exhibit allergic dermatitis or mild-to-severe asthmatic reactions." This was talking about formaldehyde outgassing from insulation. The same effects would occur from exposure to formaldehyde outgassing while you are sleeping in your bed. CPSC considers formaldehyde to be a potential human carcinogen.
- **Decabromodipheyl Oxide** – is a developmental toxicant. Exposing mothers to it during pregnancy can cause the death of or disrupt the development of the fetus. It causes birth defects and low birth weight. Behavioral or psychological problems can appear as the child grows.
- **Melamine** – is a reproductive toxicant, which can cause premature menopause, decreases in male and female fertility, onset of puberty, and changes in menstruation, gestation time, and lactation. It is a development toxicant with all of the hazards of Decabromodiphyl Oxide mentioned above. It is a cardiovascular and blood toxicant. This affects the ability of red blood cells to carry oxygen, white blood cells to fight disease,

abnormal heartbeat, decreased blood flow, and elevated blood pressure.

- **Antimony** – The Australian Government Department of Environment and Heritage says of antimony, “Antimony compounds show toxic properties similar to those of arsenic. This depends on how much antimony a person has been exposed to, for how long, and current state of health. Exposure to high levels of antimony can result in a variety of adverse health effects. Breathing high levels for a long time can irritate eyes and lungs and can cause heart and lung problems, stomach pain, diarrhea, vomiting, and stomach ulcers. Ingesting large doses of antimony can cause vomiting. When eaten by mold or mildew, antimony releases a poisonous gas called stibine. This gas has caused epidemics of deaths in the past.

These are a few of the chemicals used as fire retardants. Polyols, toluene diisocyanate, amines, siloxanes, styrene, limonene, benzene and many others are also used. If you find any chemicals listed on your mattress label, you can search the web for more information. Write the chemical in the search box adding a comma, then write “health hazard.”

How to Protect Yourself

You can protect yourself from the effects of chemical outgassing by wrapping your mattress in a gas impervious material, such as polyethylene. This can be bought in thick sheets at your local hardware store, or some websites sell mattress covers.

Many of these gasses are heavier than air. When you wrap your mattress, leave openings on the bottom so the mattress will ventilate away from your face. Whenever possible, use organic, chemical free bedding such as pure organic wool and pesticide free organic cotton.

Creepy crawlies in your bed!

Dust mites! Dust mites are related to spiders and ticks but are smaller than the periods at the end of this sentence. They are too small to be seen by the unaided eye. They live by the millions in your bed and feed off your skin flakes and dandruff. Your body provides the more than 50% humidity they need to survive and keeps their habitat toasty warm.

They are also the number one cause of allergies and asthma. But it isn't their tiny bodies causing the sneezing, wheezing, sniffing and coughing. The more than 40,000 of them counted by a scientist per

one ounce of dust leave a lot of droppings. This fecal matter causes the reactions in sensitive people. It is estimated 15% of the population and 85% of asthmatics are sensitive to dust mite poo.

Polyurethane foam, feathers and down all are wonderful dust mite hotels. The foam is made of billions of air pockets the dust mites love to call "home." When the foam is compressed they have no problem hanging on, and when it is released (as you roll over) it sucks in more food and moisture for them.

You can't completely eliminate dust mites from your home. You can reduce their numbers by creating an inhospitable environment. If possible, take your bedding out into the sun to dry it out. Dust mites hate light and dryness. This doesn't work for polyurethane though. Wash bedding and stuffed toys in hot water or freeze them overnight. Freezing won't get rid of the fecal matter.

If there is an asthmatic in the house, their bedroom should have neither carpet nor upholstered furniture. Window blinds instead of drapes would cut down on the habitat. Mattresses should be covered with polyethylene or another moisture and gas proof material. Vacuum with a machine with a HEPA filter that will trap dust mites. Empty it after every use. Eliminate stuffed toys, or clean them in hot water (130 °F) often, or buy toys stuffed with organic wool. Bedding should be changed weekly or more frequently.

Whenever possible, use pure organic wool as bedding. Wool wicks moisture away and allows it to evaporate. This not only makes it comfortable for the person sleeping, but it lowers the humidity creating an inhospitable environment for dust mites.

Although other materials require added flame retardant by law, pure wool does not.

References:

EPA national emissions standards for air pollutants
Chemicals used in making polyurethane and their health hazards:
<http://www.epa.gov/ttn/atw/foam2/fr14ap03.pdf>

Consumers Union on the flammability of polyurethane:
<http://www.consumersunion.org/products/nasfmdc699.htm>

Materials Data and Safety Sheet on boric Acid:

<http://msds.ehs.cornell.edu/msds/msdsdod/a96/m47882.htm>

U.S. Consumer Product Safety Commission on formaldehyde:

<http://www.cpsc.gov/cpsc/pub/prerel/prhtml83/83054.html>

decabromodipheyl oxide

http://www.scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1163-19-5#hazards

Australian Government Dept of Environment and Heritage on antimony:

<http://www.npi.gov.au/database/substance-info/profiles/10.html>

Our Stolen Future report on PBDEs

<http://www.ourstolenfuture.com/NewScience/oncompounds/PBDE/2004/2004-1104kuriyamaetal.htm>

The Italian Stibene Epidemic

<http://www.criblife2000.com/gosio.htm>

Website for baby mattress covers.

<http://babymattresscovers.com/>

Dust Mites

<http://hgic.clemson.edu/factsheets/HGIC2551.htm>

<http://www.aolsvc.worldbook.aol.com/wb/Article?id=ar170230&sc=-1>

<http://ohioline.osu.edu/hyg-fact/2000/2157.html>

Wool, naturally fire retardant

<http://www.fabrics.net/fireproofing.asp>

Natural organic wool products:

www.WoolieBees.com

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