LIVING WITHOUT™

A Safe Place

Chemical-free Baby's Room

By Ann McCampbell, M.D.

The new baby is almost here, and you think the room is finally ready. You've painted the nursery walls, put in new carpets, sprayed for spiders, and purchased a crib, foam mattress, polyester blankets, and acrylic stuffed animals. The nursery looks bright and clean, but is it really a safe place for your newborn?

Fresh paint and carpeting, pesticides, synthetic mattresses, stuffed toys and new or refinished bed frames emit toxic fumes that can be harmful to your baby's health. Children, especially newborns, are extremely vulnerable to toxic exposure. They do not detoxify chemicals as efficiently as adults, and their developing nervous and immune systems are easily damaged by exposures to chemicals.

It is not uncommon for children to develop allergies, rashes, asthma, seizures, chemical sensitivities, learning disabilities, and behavioral problems when exposed to these toxic chemicals. In infants, signs of chemical sensitivities include excessive perspiration and drooling, sleep problems, hyperactivity, bright red buttocks, ear problems, prolonged colic and/or a rapid pulse.

New Carpets

Think twice before installing carpet in the nursery. Carpets contain many chemicals, including those found in fiber bonding materials, dyes, backing glues, fire retardants, latex binders, fungicides, and anti-static and stain-resistance materials. There are also chemicals in carpet pads and installation glues. According to EPA testimony at a 1992 Congressional hearing on the potential risks of carpets, a typical sample of carpet with adhesive emits about 120 chemicals, many of which are known to be neurotoxic (i.e., capable of damaging the nervous system).

When researchers exposed mice to air blown over carpets suspected of causing illness in humans, many mice developed neurological symptoms, and some even died. It was expected that newer carpets and those composed of synthetic fibers would likely prove harmful, but researchers also found that carpets up to ten years old and those made of natural materials like wool were capable of evoking symptoms in the mice. Even carpets with a Green Tag, the industry's label meant to assure customers of carpet safety, harmed the mice.

Children are at particular risk for ill health effects from carpets since they have a lower tolerance for chemicals and because they crawl on the carpet

and breath close to it even when standing up.

When choosing a floor for your baby's room, consider brick, tile, or hardwood. Make sure, however, not to varnish a hardwood floor or glue tile down within six months of your baby's arrival. And do not use chemical floor polishes.

If you already have carpet in your baby's room and it is at least five years old, it may have outgassed sufficiently to be safe for your child. Since carpets tend to trap dust, mold, and tracked-in pesticides, however, it may be more healthful for your newborn if you take up the carpet and use washable cotton area rugs instead. If you keep the carpet, it's best not to use solvent-based carpet cleaners within two months of your baby's arrival.

Safe Mattress and Bedding

Finding a safe mattress for your baby is very important since your child will spend a lot of time sleeping on it. New foam mattresses are not a wise choice because fumes from the polyurethane foam can cause lung problems and other health conditions. New innerspring mattresses can also be harmful because they contain chemical finishes, polyester coverings, dyes, and chemical fire retardants. Foam and innerspring mattresses that are at least five years old are a better choice, but be careful if they still have any kind of "new" smell. A cotton mattress is a safer alternative — just air it out thoroughly before baby arrives.

Use cotton blankets to cover your baby. Wash them first several times with unscented natural soap to remove any formaldehyde that might be present in new fabrics. Harsh detergents and soap with synthetic fragrances can be harmful. Anti-cling dryer strips are particularly noxious and should be avoided.

New Paint and Furniture

Fresh paint emits formaldehyde and other toxic chemicals for months to years. An increasing number of paints are available that emit low levels of chemicals. Typically, they're advertised as low or no VOC (volatile organic compounds) paints. They are less toxic than regular latex paints, but you should give even these paints several months to thoroughly outgas before exposing your baby to them.

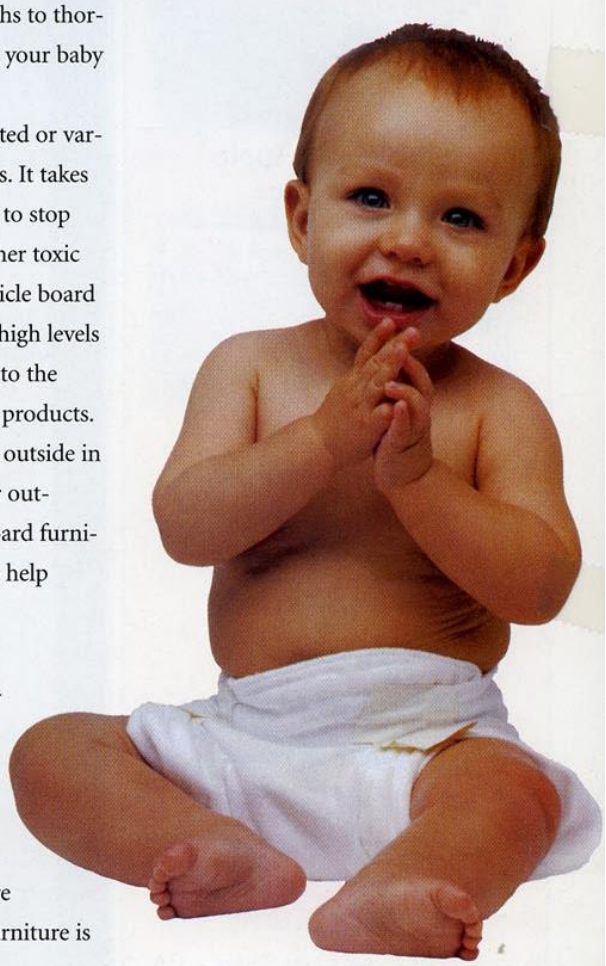
Furniture that is newly painted or varnished presents similar dangers. It takes time for fresh paint or varnish to stop emitting formaldehyde and other toxic fumes. Furniture made of particle board or plywood emits particularly high levels of formaldehyde for years due to the outgassing of the glue in these products.

Put newly painted furniture outside in the sun to hasten the curing or outgassing period. Seal particle board furniture with a low toxic sealant to help reduce formaldehyde seepage.

In general, it is best to buy furniture made of relatively inert materials, such as hard wood, metal or glass. (Hard plastic furniture may be okay, but it should be aired outside for a few months before using indoors.) Buying used furniture is often a good plan because its older age means it is no longer emitting toxic vapors. Wash used furniture carefully, however, or air it out in the sun to remove any pesticides or other contaminants.

Pesticides

Probably the worst thing you can do to a baby's room is to contaminate it with chemical pesticides. This can happen if the foundation of your house is sprayed for spiders or ants or if you use household pesticide sprays or flea bombs in your home. Mothballs, which contain the neurotoxic chemicals naphthalene or



paradichlorobenzene, are also extremely hazardous. Even the slightly less toxic synthetic pyrethroid pesticides, which are commonly advertised as less toxic, are in fact neurotoxic, and the so-called "inert" ingredients in pesticides are usually solvents which can be more harmful than the active ingredient.

If you think you need professional help to protect your child from insects or other pests, use a pest control company that uses integrated pest management techniques, and insist that the least toxic methods be used in the smallest amounts necessary.

For more information on the hazards of chemical pesticides and safer alternatives, contact:

Bio-Integral Resource Center (BIRC)
510-524-2567
www.birc.org

Beyond Pesticides/National Coalition Against the Misuse of Pesticides (NCAMP)
202-543-5450
www.ncamp.org

The Northwest Coalition for Alternatives to Pesticides (NCAP)
541-344-5044
www.efn.org/~ncap

The New York Coalition for Alternatives to Pesticides (NYCAP)
518-426-8246
www.crisny.org/not-for-profit/nycap/nycap.htm

Baby's Clothing

Babies are often showered with new clothes made from synthetic materials like polyester and acrylic fibers. A form of plastic, these materials give off toxic vapors, especially when new. They also contain chemicals that can be breathed in or absorbed through the skin. Clothes made of synthetic fibers tend to develop static cling, which can prompt parents to use fabric softeners or anti-cling dryer strips, adding to the chemical burden on the child.

Clothing made of natural materials, such as cotton, wool, linen and silk, are preferable to synthetic, but even these are not always entirely safe. Cotton clothes may have a formaldehyde finish that makes them wrinkle free and/or stain resistant. You can test for a formaldehyde finish by seeing whether a drop of water placed on the fabric sinks in readily or beads up. The latter indicates that the clothing has a finish. New cotton clothes can also contain fresh dyes and dye fixatives that can emit harmful chemicals.

Wool is a popular natural material, but watch out for moth proofing. Mothproofing chemicals are designed to last the lifetime of the garment, and they often do. Still, washing a new wool garment several times can reduce the chemical potency somewhat. Older wool clothes are often a safer choice than new, unless they've been stored with mothballs.

What are generally the safest, health-promoting clothes for your baby? Hand-me-downs and other used clothing are generally less toxic, since the chemicals from finishes, sizing, fixatives, and dyes are usually removed after numerous washings. If you buy new clothes, wash them in unscented natural soap until the "new" smell is gone and they no longer lose a lot of dye. Dark dyes will take longer to stop bleeding and emitting chemicals than lighter ones. It's best to get natural clothing for your baby, keeping in mind that even cotton and wool garments can be chemically treated.

Pajamas present a special challenge, since all children's pajamas are legally required to be flame-resistant. This means that they are either made with naturally flame-resistant polyester or contain flame-retardant chemicals. If you want to prevent exposure to these noxious chemicals, have your baby sleep in untreated cotton T-shirts and pants.

Keeping Baby Safe

The nursery can either promote or discourage good health in your newborn. The thicker the chemical soup surrounding your infant, the greater the chance that he or she will suffer from chemical damage. Sometimes the symptoms are immediate. Most often, the damage does not manifest until later in life.

Use your nose to help determine whether your baby's room is safe. A clean and safe room will have no smell at all. If the room smells of carpet, paint, new furniture or brand new clothes, there are too many chemicals present. Even a faint smell can mean there are enough toxic fumes present to harm your young child. The fewer toxic exposures your baby experiences, the better his or her chances for a long and healthy life. **SLW**

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