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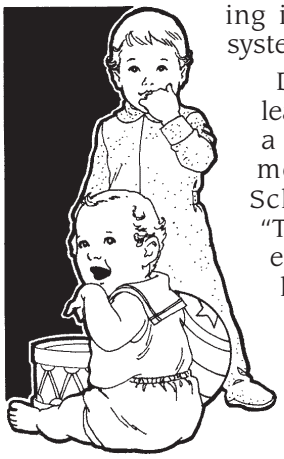
THE NEXT STEP

Toward a Healthier Future

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM

Pesticide Exposure in Childhood Can Increase Asthma Risk

According to a team of USC scientists, children exposed to household pesticides in their first year of life are over twice as likely to develop asthma as those who are never exposed.



Asthma – currently the most prevalent disease impacting American children – causes more hospital stays and missed school days than any other chronic childhood illness. In an asthma attack, airways are inflamed and constricted, reducing airflow and causing shortness of breath and coughing. More than 3.5 million American children under the age of 15 suffer from asthma, and about 16.5 million adults. Between 1980 and 1999, the number of children with asthma doubled, according to the Centers for Disease Control and Prevention. About 5,000 Americans die from asthma attacks every year.

The USC study – one of the largest to examine factors contributing to childhood asthma – confirmed many of the findings of previous research. The report described a variety of factors that can be responsible for childhood asthma and indicated that indoor and outdoor contaminants are particularly harmful to infants, perhaps determining how healthy the child is for the rest of their life.

The USC scientists said "the widespread use of pesticides and herbicides in the home and farm environments, and the magnitude of the observed risks" warrant giving priority to investigating their link to asthma. Scientists have long been concerned that exposure to irritants or chemicals can alter a child's developing immune and respiratory systems.

Dr. Frank D. Gilliland, the lead author of the report and a professor of preventive medicine at USC's Keck School of Medicine, said, "The main message is that early in life, the first year of life may be a very, very important time for respiratory health, and that children may be uniquely susceptible then."

The team also found that exposure to wood smoke in childhood significantly increased the incidence of asthma. This report was published in the online version of the scientific journal Environmental Health Perspectives. This study is part of the 10-year Children's Health Study that has examined the effects of air pollution on about 6,000 Southern California schoolchildren.

~ Patricia Dines

SOURCE: "Early Exposure to Chemicals May Boost Risk of Asthma," by Marla Cone, L. A. Times, Dec. 12, 2003 <www.latimes.com/features/health/kids/la-na-asthma12dec12,1,453259.story?coll=la-health-kids>

Starting Your Spring Garden

Even if it is still pouring out, you can start seedlings indoors now for tender lettuces and greens. Check for early growing seed varieties of lettuce. You might also want to plant: peas; chard; spinach; kale; collards and mustard; beets; onions; leeks; radishes; turnips; potatoes; strawberries; and comfrey. Flowers you can plant now include: stock; delphinium; larkspur; foxglove (careful around kids – it's poisonous); and sweet peas.

If you put plant starts in the ground now, you can mulch deeply around them to keep them warm and not drowned by rain. If your garden is bothered by cats and other critters, try putting out some coat hangers here and there, or any kind of wire that is handy. Just lay it on top of the mulch or seedbed. Bend decoratively if you want an arty look!

If you have areas where weeds are annoying, now is a good time to put a thick mulch down there, before they multiply. Also, you can cut away blackberries, ivy, or other troublesome spreaders and put cardboard on top to kill the plants underneath. This can be topped with a more aesthetic-looking mulch. This method is known as sheet mulching.

We at STEP are experimenting with putting either salt, vinegar, or both on sidewalk cracks and other spots where plants are unwanted, as an alternative to herbicide or continual weeding. Try your own experiment and let the rest of us know! Use moderation and do not apply close to desirable plants.

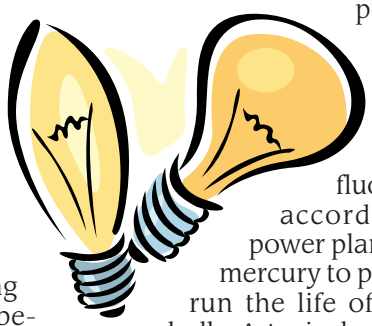
Happy spring!

~ Rebecca Dwan & Craig Litwin

Seeking STEP writers! Are you a writer interested in toxics and alternatives? We love to include different voices from the community on these pages! For more information, see our new STEP Writer's Guidelines page at <www.healthyworld.org/STEPWriter.html>.

Mercury Lurks in Fluorescent Bulbs

News reports are alerting people to **the health risk of mercury in tuna and other fish**. Mercury can harm our brains, spinal cords, kidneys, liver, and more, with early symptoms often including trembling hands, memory loss, and difficulty moving. (Source: EPA fact sheet)



But I never really gave much thought to fluorescent light bulbs, which contain mercury vapor.

Many people are turning to **fluorescent bulbs,** because they **have significantly longer lifespans and save substantial electricity** over the more common incandescent bulbs.

However, according to Californians Against Waste, fluorescent bulbs are one of the largest sources of mercury in California landfills, because many people unknowingly dispose of them in the garbage. As with other toxics, it is illegal to put fluorescent bulbs (including compact bulbs) in the garbage. **Fluorescents must be saved for Toxics Roundups or other hazardous waste collections**. This is because even if you put an unbroken bulb in the garbage, it will break at some point, releasing its toxics.

Overall, fluorescents produce a much lower mercury risk then incandescents. In areas where fossil fuels are burned to make energy, more mercury is dispersed in the air to make the extra energy to run an incandescent bulb than is emitted from a broken fluorescent. Amazingly, according to the EPA, a power plant will emit 10 mg of mercury to produce electricity to run the life of one incandescent bulb. A typical compact fluorescent bulb has about 4 mg of mercury in it.

By the way, **if a fluorescent bulb breaks in your home**, hold your breath and open windows to disperse the mercury vapor. Sweep up the fragments without touching them, and wipe them up with a paper towel to throw away. Don't get them into your vacuum. Seal them up in a plastic bag and save for a Toxics Roundup.

The moral here is . . . **use fluorescents, but avoid breaking or trashing them!** And be extra careful with the older fluorescent bulbs with ballasts, as they can contain PCBs, which are also highly toxic.

Also toxic but less prevalent are old **thermometers** with mercury in them. And of course the newfangled electronic ones are toxic as well, not necessarily from mercury but because they are household electronics, which also need to be saved for Toxics Roundups. (More on e-waste in a future issue.)

A reader asked **what happens to the mercury that is brought to Toxics Roundups**. The good news is that recycling businesses pick them up and use them for new fluorescent bulbs. Also, at this writing there are bills in the State Assembly and Senate to increase recycling capabilities for fluorescent lamps with a lamp surcharge to cover the costs.

~ Rebecca Dwan

ABOUT STEP

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program** (STEP). **STEP is a project of the City of Sebastopol**, implemented by local citizen volunteers. **STEP's mission** is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

Past issues of TNS are at <www.ci.sebastopol.ca.us>; look under Programs. **An ongoing index by topic** is at <www.healthyworld.org/STEPIndex.html>.

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Household Toxics Roundups

Bring your household toxics to these upcoming Toxics Roundups, for their safe disposal.

May 15, 9 a.m.-3 p.m., Rohnert Park Stadium, 5900 Labath, Rohnert Park

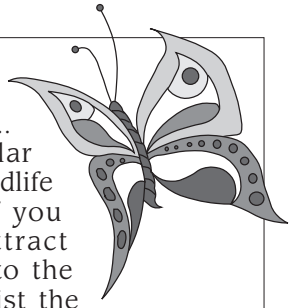
June 12, 9 a.m.-3 p.m., Santa Rosa County Center, Administration Dr. & Paulin Dr., Santa Rosa

Common household toxics include pesticides, paints, batteries, fluorescent bulbs, and more. For more information, see The Sonoma County Waste Management website at <www.recyclenow.org> or call the Eco-Desk at 565-DESK(3375). And check out the great green-colored section on recycling in the SBC phone book.

Note that there is currently no Toxics Roundup for Sebastopol in 2004. A new permanent household toxics facility is expected soon for our county. Check the website for status updates.

Poison exposure is one of the leading causes of childhood injury in America – an alarming, yet preventable, statistic. The California Poison Control System (CPCS) receives about 300,000 calls a year for poison emergencies and information. In an emergency, call California Poison Control at (800) 876-4766.

SOURCE: <www.cal poison.org/public/npp_week.html>.



"Brightly colored butterflies ... are a popular visitor to wildlife gardens. If you want to attract butterflies to the garden, resist the urge to combat problem insects with [non-organic] pesticides; they are likely to kill the innocent along with the guilty."

Natural Gardening, Jim Knopf, et al