

Bulletin of the Canadian Network for Human Health and the Environment

Number 13

September 2009

Welcome to the thirteenth Bulletin of the Canadian Network for Human Health and the Environment!

Visit us at: www.cnhhe-rcshe.ca

If you have new information that would be useful to others on any aspect of human health and the environment, please forward it to us for inclusion in the next Bulletin:

barb.mackinnon@nb.lung.ca. The deadline for the next Bulletin is **October 9, 2009**.

CONFERENCES

2009 International Symposium on Pharmaceuticals in the Home and Environment

Drug and law enforcement personnel, pharmacists, environmentalists, health care practitioners, educators and researchers, policy makers and program planners and administrators are invited to meet with the leading authorities on prescription drug use, abuse, return and disposal. At this conference you can attend cutting edge educational symposia and panel sessions and build your skills at expert-led, pre-conference, technical assistance workshops. The conference will be held October 18-20, 2009 at Point Lookout Resort and Conference Center in Northport, Maine. For more information see <http://www.mainebenzo.org/2009conference.htm>.

GENERAL

Groundwater Resources, Climate and Vulnerability: New Article Available

The Focus Issue presents a selection of papers discussing the latest developments in the rapidly developing field of Groundwater. 'Groundwater resources, climate and vulnerability' has now been published in ERL and is permanently free to read at

<http://herald.iop.org/ERLgroundwater/m212/hxp/link/2792>.

Power Point from Stakeholder Session on Risk Assessments under the Chemicals Management Plan Now Available

Environment Canada has approved and released the PowerPoint presentation from the Stakeholder Information Session on Risk Assessments under the Chemicals Management Plan (Workshop held April 23, 2009). To view the Power Point presentation, please visit:

<http://www.cnhhe-rcshe.ca/pdf/Assessment%20Workshop%2023-Apr-09%20Sent%20to%20Stakeholders%2017-Jul-09.pdf>

Chemicals Management Plan (CMP) Website Undergoes Updates

Included in the updates are the batch 4 final analysis from Environmental Defence as well as information on other batches. To visit the website, please go to: <http://www.cen-rce.org/CMP/indexcmp.html>.

Notices of Batch 7 of the CMP Challenge were published in the *Canada Gazette*

In addition to the notices, the draft screening assessment reports and risk management scope documents were released as well. The public has until November 4, 2009 to submit written comments to the Minister of the Environment and to the Minister of Health. To view the documents, please visit: <http://www.chemicalsubstanceschimiques.gc.ca/en>.

Health Canada Recommends the Use of the Enzyme Asparaginase as a Food Additive

In view of the results of Health Canada's evaluation concluding to the safe use of asparaginase as a food additive in certain food commodities, and of the input received from stakeholders, Health Canada's Food Directorate will proceed with the drafting of regulatory amendments to add asparaginase to Table IX, Division 6 of Part B of the Food and Drug Regulations. To read the full article, please visit: http://www.hc-sc.gc.ca/fn-an/consultation/init/_2009-asparaginase/summary-sommaire/index-eng.php.

Environment Canada's Canadian Environmental Sustainability Indicators and Water Quality

EC's Canadian Environmental Sustainability Indicators (CESI) has developed a short article highlighting water quality information entitled "Canada's Authoritative Source for Environmental Information at your Fingertips" that can be viewed at <http://www.ec.gc.ca/envirozine/default.asp?lang=En&n=12022B77-1>. CESI also released EC's latest results on three issues of concern to Canadians: air quality, water quality and greenhouse gas (GHG) emissions in March 2009. These latest CESI findings can be viewed at: www.ec.gc.ca/indicateurs-indicators.

Canadian Institute for Environmental Law and Policy Has a New Leader

The CIELAP Board of Directors is pleased to introduce Thomas Esakin as CIELAP's new Executive Director. If you'd like to contact Tom, his new contact information is thomas@cielap.org or 416-923-3529 x25. To view the full article, please visit: <http://www.cielap.org/NewCIELAPED.php>.

HEALTH AND ENVIRONMENT NEWS

Canadian Medical Association Calls for a Ban of Household Products Containing Triclosan

At its annual convention, the Canadian Medical Association called on the federal government to ban the sale of household antibacterial products such as those containing triclosan. Strong scientific evidence suggests that pervasive use of triclosan poses imminent threats to human health and the environment, which is why Beyond Pesticides and Food and Water Watch submitted an amended petition a month ago to the U.S. Food and Drug Administration (FDA) seeking to ban the use of the controversial pesticide triclosan for non-medical applications. The petition establishes that FDA's allowance of triclosan in the retail market violates the *Federal Food, Drug and Cosmetics Act*. To view the full article, please visit: <http://www.beyondpesticides.org/dailynewsblog/?p=2326>.

Chemical Found in Baby Shampoos Not Toxic: Health Canada

Health Canada on Friday concluded that a chemical considered a possible carcinogen and commonly found in trace amounts in baby shampoo, bubble bath and liquid soap should not be listed as toxic to human health. Manufacturers in Canada are not permitted to add 1,4-dioxane as an ingredient in cosmetics and personal-care products, but the chemical is found in trace amounts

in many items as a byproduct of the manufacturing process. To view the full article, please visit: <http://www.canada.com/health/Chemical%20found%20baby%20shampoos%20toxic%20Health%20Canada/1963940/story.html>.

PCBs in Eggs Linked to Lower Survival of Young Turtles

A mother turtle's lifetime exposure to PCBs is more influential to the health and well being of her progeny than the exposure they get through their post-hatch diet, report researchers in a recent edition of *Environmental Science and Technology*. To view the full article, please visit: <http://www.environmentalhealthnews.org/ehs/newscience/pcbs-in-eggs-not-diet-affects-turtle-survival>.

U.S., Canada Near Agreement to Control Pollutants from Ships

the United States and Canada are nearing an international agreement to clean up the emissions of ships traveling within 200 nautical miles of shore. Scientists at the Environmental Protection Agency calculate that pollution controls will save the lives of 8,300 people each year and help more than 3 million avoid respiratory problems. To view the full article, please visit: <http://www.mcclatchydc.com/economy/story/74811.html>.

Ozone Reacts with Compounds in Skin Oils, Resulting in Potentially Irritating Chemicals

According to new research published last week in *Proceedings of the National Academy of Sciences*, ozone coming into contact with human skin and hair, specifically the oils on each of them, sets off a whole lot of chemistry, some of it possibly of concern. To read the full article, please visit: <http://www.scientificamerican.com/article.cfm?id=ozone-reacts-with-human-skin-to-produce-irritants>.

Kid-Safe Chemicals Act Bill Introduced in U.S.

Sen. Frank R. Lautenberg (D-NJ) reintroduced major legislation to protect children from toxic chemicals found in everyday consumer products. The bill aims to overhaul current legislation that allows more than 80,000 chemicals on the market with little or no safety testing. To view the full article, please visit: <http://www.emagazine.com/view/?4719>.

Psychosocial Stress, Pollution, and Health

In recent years, a growing body of work has shown that psychosocial stress may exacerbate susceptibility to the adverse effects of pollutants such as lead, polychlorinated biphenyls, and combustion emissions. To accurately measure and evaluate the effects of stress on people's susceptibility to pollutants, researchers need to rely on the tools and findings of both social epidemiology and environmental health science. To view the full article, please visit: <http://www.ehponline.org/docs/2009/117-9/ss.html#acom>.

Popular Herbicide More Deadly to Liver Cells Than its Active Chemical Alone

Very low doses of some types of the herbicide Roundup can disrupt human liver cell function; the formulations' toxicity may be tied to their "inactive" ingredients rather than the active weed-killing ingredient glyphosate. French scientists report that a number of Roundup formulations tested at very dilute concentrations can alter hormone actions and cause human liver cells to die within 24 hours of treatment. To view the full article, please visit: <http://www.environmentalhealthnews.org/ehs/newscience/roundup-mix-more-toxic-to-liver-cells-than-glyphosate>.

The Pine River Statement: Human Health Consequences of DDT Use

(DDT) was used worldwide until the 1970s, when concerns about its toxic effects, its environmental persistence, and its concentration in the food supply led to use restrictions and prohibitions. In 2001, more than 100 countries signed the Stockholm Convention on Persistent Organic Pollutants (POPs) , committing to eliminate the use of 12 POPs of greatest concern. However, DDT use was allowed for disease vector control. In 2006, the World Health Organization and the U.S. Agency for International Development endorsed indoor DDT spraying to control malaria. To better inform current policy, we reviewed epidemiologic studies published from 2003 to 2008 that investigated the human health consequences of DDT and/or DDE exposure. To view the full article, please visit:

<http://www.ehponline.org/members/2009/11748/11748.html>.

Influence of Prenatal Lead Exposure on Genomic Methylation of Cord Blood DNA

Fetal lead exposure is associated with adverse pregnancy outcomes and developmental and cognitive deficits ; however, the mechanism(s) by which lead-induced toxicity occurs remains unknown. Epigenetic fetal programming via DNA methylation may provide a pathway by which environmental lead exposure can influence disease susceptibility. To view the full article, please visit: <http://www.ehponline.org/members/2009/0800497/0800497.html>.

Atrazine Acts in the Brain to Disrupt the Hormones that Trigger Ovulation

The common and highly-used herbicide atrazine can act within the brain to disrupt the cascade of hormone signals needed to initiate ovulation, finds a study with rats published online in the journal Biology of Reproduction. To view the full article, please visit:

<http://www.environmentalhealthnews.org/ehs/newscience/atrazine-acts-in-the-brain-to-disrupt-ovulation>.

Stain Repellents Affect Thyroid Hormone Levels in Adult Inuits

Researchers find stain repellents and a long list of banned and other currently used chemicals can affect thyroid function in people. Several long-lived pollutants measured in the blood of Canadian Inuits are associated with altered thyroid hormone levels, this study finds. It is unclear, though, whether the exposures are associated with ill health effects. To view the full article, please visit: <http://www.environmentalhealthnews.org/ehs/newscience/pfos-affects-thyroid-hormone-in-inuit/>.

Corn Syrup's Mercury Surprise

New research suggests that the sweetener could be tainted with mercury, putting millions of children at risk for developmental problems. In 2004, Renee Dufault, an environmental health researcher at the Food and Drug Administration (FDA), stumbled upon an obscure EPA report on chemical plants' mercury emissions. Some chemical companies, she learned, make lye by pumping salt through large vats of mercury. Since lye is a key ingredient in making HFCS, Dufault wondered if mercury might be getting into the ubiquitous sweetener. To view the full article, please visit: <http://www.motherjones.com/environment/2009/07/corn-syrups-mercury-surprise>.

Even "Safe" Ozone Levels May be Hard on the Lungs

Ozone concentrations below the current U.S. clean-air standard may still temporarily impair lung function, even in healthy young people, a small study suggests. Researchers found that when 31

young adults exercised at various levels of ozone exposure over several hours, participants' average lung function began to deteriorate when ozone concentrations stood at 70 parts per billion (ppb). To view the full article, please visit: <http://planetark.org/wen/54201>.

Diesel Exhaust Reduces Sperm Production in Mice Exposed Before Birth

Prenatal exposure to the small particles released when diesel fuel is burned could compromise male fertility. The results suggest exposure to diesel exhaust can disrupt the proper development of the testis in rats and mice and perhaps affect reproduction. The adult male mice, exposed to air pollution particles in utero, had significantly lower sperm counts than male mice born to mothers that were not exposed to the particles. Sperm problems – such as low counts or misshapen sperm – are a main cause of infertility in US men. To view the full article, please visit: <http://www.environmentalhealthnews.org/ehs/newscience/particulates-lower-sperm-in-mice-exposed-in-utero>.

High Levels of Lead in Bone Hard on the Heart

Older men with the highest levels of the metal in their bones were more than twice as likely to die over the study's 9-year follow-up than their peers with the lowest bone lead levels, while their risk of dying from heart-related causes was nearly six times greater. To read the full article, please visit: <http://www.reuters.com/article/healthNews/idUSTRE58768820090908>.

How Air Pollution Can Damage the Heart

Scientists at the University of Michigan, led by Dr. Robert Brook, found that the quality of air you breathe can immediately increase your blood pressure, and cause unhealthy changes in your blood vessels that last for hours and perhaps even days. To view the full article, please visit: <http://www.time.com/time/health/article/0,8599,1921080,00.html>.

Air Conditioning Linked to Fewer Heart-Related Hospitalizations

A new study finds that fewer older people are hospitalized due to heart problems associated with air pollution if they live in places that have more homes with central air conditioning. A report published online in the journal *Epidemiology* finds that communities that have more homes with central air conditioning have proportionately fewer older people who are hospitalized for heart and circulatory problems related to air pollution. To view the full article, please visit: <http://www.environmentalhealthnews.org/ehs/newscience/air-conditioning-related-to-fewer-hospitalizations-in-elderly>.

National Round Table on the Environment and the Economy: Report Released

On October 30th, 2008, the National Round Table on the Environment and the Economy (NRTEE) held a forum to discuss our country's future climate-policy agenda. The report from the forum is now available. It offers observations from the NRTEE for Canada's next climate policy agenda and the research priorities the NRTEE will be undertaking in this field. To view the report, please visit: <http://www.nrtee-trnee.com/eng/news-media/events/other/20th-anniversary/climate-forward/climate-forward-eng.pdf>.

A Bad Mix: Exposure May be “Safe” Only With One Chemical at a Time

Exposure to a mixture of environmental chemicals is far more harmful to male rats than exposure to the individual chemicals would predict, even when the level of each contaminant in the mixture causes no effect by itself. The results indicate that assessing the risk of chemicals one-compound-at-a-time will underestimate potential harm. To view the full article, please visit:

<http://www.environmentalhealthnews.org/ehs/newscience/bad-mix-exposures-safe-only-one-chemical-at-a-time>.

Images Suggest Childhood Lead Exposure Linked to Faulty Brain Wiring

Exposure to low to moderate levels of lead before birth and as a child can permanently change the brain's structure in a way that may alter if and how it transmits messages, a new study finds. The conclusions are based upon comparisons of images of the brain's nerves and their protective coverings – collectively called white matter. To view the full article, please visit:

<http://www.environmentalhealthnews.org/ehs/newscience/childhood-lead-exposure-can-permanently-rewire-brain>.