

## Harvard study on chemicals and brain health

The recent increase in childhood neurodevelopmental delays and disabilities may be triggered by toxic chemicals in our environment, according to a new study released by Harvard School of Public Health and Icahn School of Medicine at Mount Sinai. The study, released a few weeks ago online in *Lancet Neurology*, indicates that children's exposure to certain chemicals, including pesticides, may cause disabilities such as autism, attention-deficit hyperactivity disorder (ADHD) and dyslexia.

Dr. Philippe Grandjean, adjunct professor of environmental health at Harvard and lead author of the study, is concerned because even ordinary (undiagnosed) children are affected. "The greatest concern is the large numbers of children who are affected by toxic damage to brain development in the absence of a formal diagnosis... They suffer reduced attention span, delayed development, and poor school performance. Industrial chemicals are now emerging as likely causes."



The study outlines possible links between 6 newly recognized neurotoxins- manganese, fluoride, DDT and chlorpyrifos (pesticides), tetrachloroethylene (a solvent), and the polybrominated diphenyl ethers (flame retardants)- and negative health effects on children. The study found:

- Certain types of pesticides may cause cognitive delays.
- Manganese is linked to diminished intellectual function and impaired motor skills.
- Solvents are associated with hyperactivity and aggressive behaviour.

What can we do?

- 1 Limit and avoid exposure to pesticides, food laden with pesticides, unfiltered water and toxic, man-made chemicals. Even children's clothes (from brands such as Gap, Adidas, Burberry and Disney) with colourful dyes and large prints

may contain harmful chemicals, according to the Greenpeace campaign and reported by the Hong Kong media in January 2014. For toddlers, use a fluoride-free toothpaste. Be a smart consumer.

- 2 If you are planning for a pregnancy or are pregnant, reduce your exposure to chemicals, many of which the fetus is not protected against. The placenta does not block the passage of environmental toxins from maternal to fetal circulation and more than 200 foreign chemicals have been detected in umbilical cord blood.
- 3 Avoid overburdening your body with **processed foods**, excessive smoking/ drinking/ recreational drugs and excessive stress, all of which may hinder the body's detoxification mechanisms.
- 4 If you suspect that your health condition (ADHD, learning delays or disorders, **infertility**, **weak immune system**, etc.) may be linked to toxic chemicals or heavy metals, talk to your naturopathic doctor to get tested.