



ENVIRONMENTAL POLLUTION

Dr Richard J Coleman, 128 Millhouse Drive, Howick, Auckland. Phone 09 537 4980

The information below was originally published in May 2016 in the Millhouse Integrative Newsletter, a monthly publication, primarily designed for clinic patients, highlighting useful strategies which may help prevent disease and improve health.

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Most years I attend the Nutrition in Medicine Conference, an annual event organised by the Australasian College of Nutritional and Environmental Medicine (ACNEM) in conjunction with scientists from the College of Scientific and Research Organisation (CSIRO). Held over a weekend in May each year, the conference enables doctors and nutritionists to discuss advancing knowledge in nutritional health science. The 2016 focus was Environment and Pollution.

Poisoned Planet

Julian Cribb, author of the '[Poisoned Planet](#)', informed the meeting that over 144,000 different chemicals are now manufactured, with more than 2000 new substances being produced each year. Most chemicals have not been tested for human safety. Humanity has released many gigatonnes (over a billion tonnes) of fossil fuels, carbon, topsoil, hazardous chemical and mineral wastes into the environment. These anthropogenic poisonous substances circulate throughout the whole earth and can be found in the stratosphere, Mt Everest and in the deep oceans. Chemical testing now shows that we all carry a lifelong chemical burden, unborn children are being contaminated and in 68 countries mother's breast milk has been found to be adulterated. The World Health Organisation estimates that 1 in 12 humans die from environmental poison, and 86 million are maimed each year.

The industrial contamination of Minamata Bay in Japan was the first environmental catastrophe to reach the world stage, but many have since followed, including the 1976 dioxin release in Italy, affecting thousands. Oil spills from the Amoco Cadiz (1978) leaked 1.6 million barrels and the Exxon Valdez (1989) upward of 750,000 barrels into the sea. The Bhopal (1984) disaster in India killed more than 8000 persons and injured at least 1.5 million from the release of the deadly poisonous methyl isocyanate gas. And of course the nuclear disasters of Chernobyl (1986) and Fukushima (2011) are still having calamitous effects.



'Madonna of Minamata Bay'

This shocking but famous photograph of Tomoko Uemura being bathed by her mother was taken by Eugene Smith and published in LIFE magazine in June 1972.

It brought to the world the devastation of the chemical methyl mercury, released by the Cisso Chemical Company into Minamata Bay in Japan. The seafood was contaminated, fish & animals died and 2000 people slowly perished.

It took 30 years for the families to be compensated.

Estimated global emissions of significant chemical substances each year	
Uranium	70,000 tons
Pesticides	2.4million tons
Toxic & carcinogenic chemicals	10million tons
Other industrial chemicals	20 million tons
Phosphorus	10 million tons
E-waste	50million tons
Nitrogen	11 million tons
Hazardous waste	400 million tons
Metals	500 million tons
Mineral waste	5000 million tons
Petroleum	4400 million tons
Coal	800 million tons
Carbon(all sources)	36,000million tons
Soil	75,000 million tons

Source: UN Environmental Programme

Cribb is adamant that the *poisoning of our planet* will not be solved by government regulation and industrial compliance alone but also by *the choices and actions we take*.

Healthy Child Healthy World

Californian parents [Nancy and James Chuda](#)ⁱⁱ lost their only child Colette to a rare non-genetic Wilms' Tumour. The Chudas had been exceptional parents and could not imagine why this had occurred, and even undertook personally extensive medical tests that revealed nothing. They 'began to question whether something in the environment had interfered with Colette's gestational development. We learned..... it was possible that something that Nancy had ingested or was exposed to in the environment during her pregnancy could have triggered the destructive mechanism that caused Colette's cancer to develop.'



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Four years passed until they read [a Brazilian study](#)ⁱⁱⁱ for their fears to be realised. The study revealed a link between parental pesticide exposure before pregnancy and the age of the child at the time of diagnosis of a Wilms' Tumour. The report commented that maternal exposure to pesticides was the most likely cause of the disease when the tumour was diagnosed 48 months after the child's birth.

Colette was diagnosed at four years, in fact at exactly 48 months of age. One of the most troubling facts the Chudas unearthed was that environmental safety standards were based on research that measured the potential carcinogen effects only on a 70 kilogram adult male, not on an infant, let alone a growing foetus.

In 1991 they launched the Colette Chuda Environmental Fund to support scientific research on the risks to children from environmental toxins. This led to the release in 1994 of the first systematic analysis of child exposure to carcinogens at home and in the school environment. "[Handle with Care: Children and Environmental Carcinogens](#)," researched by the Natural Resources Defence Council was distributed around the world (now out of print).



The Chudas' Not for Profit organisation '[Healthy Child Healthy World](#)' offers reliable and practical information for the home and school environment. It empowers parents to have a safe pregnancy, and to live in a safe environment by eating organic nutritious food, and avoiding chemical contamination from clothing, toys and housing material, as well as encouraging everyone to be advocates for a safer community and world.

Healthy Child Healthy World's mission is simple – to help parents protect their children and families from harmful chemicals. For decades they have resourced parents with tools and inspiration to educate others and helped identify non-toxic alternatives to everyday products. They have also funded scientific research and called on companies to change their products and formulations. HCHW has also

been politically active in the area of legislative accountability. The organisation is currently revisiting its mission in light of the changing communications and social media environment.

Roundup - Glyphosate Weed Killer

In 1974 Monsanto introduced the Roundup herbicide which kills broad leaf weeds and is the most-used agricultural chemical in history. In New Zealand it is utilized extensively by councils and home gardeners to control grass and weeds around paths, streets and buildings.

In 1996 the first genetically modified glyphosate-resistant crops were developed; these allowed field spraying to kill weeds with impunity. More recently farmers have been using the herbicide on wheat, oats and rapeseed to accelerate crop maturity and yield prior to harvest time. Over the years glyphosate-resistant weeds have become an increasing problem. The common belief is that the herbicide is harmless and broken down quickly in the soil. However glyphosate is detectable in rain, drinking water, and the urine of non-organic food consumers and appears in higher amounts in those with chronic disease.

Glyphosate adversely affects gut bacteria and impairs cytochrome P450 detoxification enzymes. In 2013 MIT scientist Dr Stephanie Seneff^{iv} stated that the increased widespread use of glyphosate, parallels the [rise in the incidence of coeliac disease](#), inflammatory bowel disease, autism, Parkinsons, and non-Hodgkin lymphoma as well as kidney disease in agriculture workers. In March 2015 the World Health Organisation research group determined glyphosate to be a 'probable carcinogen' (Class 2A) associated with non-Hodgkin's lymphoma and lung cancer in humans.

In March 2016 the European Commission met to consider renewal of glyphosate's license but they delayed their decision. Monsanto is vehemently lobbying for its continued widespread use. In 2018, a school groundsman won a [case against Monsanto](#) for not informing users of Round Up of the dangers.

ⁱ Poison Planet by Julian Cribb (2015) e-book available

ⁱⁱ <http://www.healthychild.org>

ⁱⁱⁱ Parental exposures to pesticides and risk of Wilms' tumor in Brazil. *Am J Epidemiol.* 1995 Feb 1;141(3):210-7

^{iv} <https://content.sciendo.com/view/journals/intox/6/4/article-p159.xml>