
Chemical Free Kids

Raising healthy children in a toxic world

BY DR SARAH LANTZ (PHD)
RESEARCH FELLOW, SOCIAL POLICY UNIT
UNIVERSITY OF QUEENSLAND

Forward

It was in 1983 that I started my training in advanced organic chemistry. I remember the first practical experiment with chemicals I ever did. I removed a beaker of boiling benzene (one of the most toxic chemicals on the planet) from the fume cabinet and walked with it across the laboratory to show the chemical reaction to my supervisor. I was hastily instructed to place the beaker back in the fume cabinet. The fact was, I was inhaling the fumes, as were the students around me, and completely unaware of the effects this would have on my body, and those of others. Whilst all chemicals in the laboratory came with specific warnings and instructions on how to handle them, in reality we were creating new and novel compounds and knew nothing about their toxicity and impact on the human body. We didn't ask those questions and we certainly weren't taught to consider them. The concept of Green Chemistry that is discussed in this book certainly wasn't in the curriculum when I was attending to my University studies, and is still to this day not widely practiced. The joy of synthesising compounds, making new molecules, conducting our experiments in the fume cabinet was all there was. Consequences were not considered. I now know better. My blood levels of benzene, toluene and other organic solvents still remain high, despite the many detox programs I have undertaken. I am sure that the long term health impacts are still to be experienced.

I find it ironic that as chemists we are entrusted with the job of inventing new materials and products, and whilst we've come up with substances with wonderful applications, the application of these substances is all that we've mostly considered. We are often clumsy and deal crudely with all other surrounding issues. For example, we don't consider that developing a chemical that is good for crops might also get in the waterways, our food, our growing babies and children. As fellow chemist, Professor John C. Warner, states, 'The key to quality chemistry education is not teaching the right answers, but teaching how to ask the right questions'. We are only recently starting to ask these questions.

The other concerning issue here is that it is a human tendency not to take action until there is an immediate and definitive threat. The problem with this is that the effects of chemical exposure are not usually immediate and visible. They may take years to accumulate in the body or the environment before the impacts become apparent. By that stage it's often too late. A classic example of this is the development of lung cancer from cigarette smoking. Studies reveal that it can often take 15 years of exposure to the toxic chemicals released from cigarettes before lung cancer develops. This, however, can vary from one individual to the next due to our varying genetic makeup and level of susceptibility. Children and young people, on the other hand, are always far more susceptible than adults to toxic chemical exposure. Their bodies, brains, organs, immune systems, are still developing and unable to combat the effects of toxic chemicals.

When I first met Dr Sarah Lantz at a seminar, I remember her standing at the front of the room speaking about her book (this book) *Chemical Free Kids: Raising Healthy Children in a Toxic World*. 'It's a book', she said, 'about toxic chemicals and how to raise healthy children in a toxic world'. In that moment I was compelled to introduce

myself and partner her in making this book available to parents and carers of children and young people. Little did she know at the time that I was myself becoming a reformed and conscious chemist, and equally passionate about preventing toxic chemicals from entering and impacting the human body, especially those of children and young people. With this in mind, I asked Sarah what she wanted to accomplish with her book. She responded by saying, 'I want to transform the way parents approach their own health and that of their children'. She imagined that some day, parents would be reading her book and feeling relieved that they had - for their sake and those of their children. She wanted all parents to have this knowledge and be equipped with safer solutions. This has essentially become the mission of the book: to bring awareness to the issue of the impact of toxic chemicals on the health and wellbeing of children and young people.

Chemical Free Kids is a book that examines the essential link between the environment and children's health. Specifically, it is a book that brings together compelling new research about how toxic chemicals in the environment play a critical role in our children's health. It takes research discoveries from the academic sphere into the public domain and makes research accessible to the broader community - simply and comprehensively. As you read through the chapters of Chemical Free Kids you will learn about the world of chemicals and their toxicity on the human body. Whilst many people are aware of the rise in carbon dioxide and other chemicals in the environment that are associated with green house effects and being experienced with rising global temperatures, you will discover that the impact of these chemicals is much more widespread than this.

Chemical Free Kids brings to light that just as these chemicals are being a burden on the planet they are also being a burden on the human body, acting as 'invisible killers'. You will find that even before a newborn baby takes his or her first breath, they are contaminated by a wide range of everyday chemicals and pollutants from the environment.

Sarah holds a high level of academic credibility from her professional background in public and mental health, as well as specialising in the area of child and youth health and wellbeing. As well as being an accomplished academic, however, she is also a mother who is concerned about the world that we are creating for our children and future generations. Sarah adopts a holistic approach to living well.

In its softer side, Chemical Free Kids teaches us as parents about the importance of stepping back and simply allowing kids, with their instinctive curiosity and creativity to discover their own natural self-expression, about living life and living in the moment. In this context, the book is also about conscious parenting, and in doing so, also becoming a conscious consumer - raising our awareness of the chemicals in the personal care products that we use, the food that we consume and the impact of the choices that we make as consumers on the environment, our own health and wellbeing and the health and wellbeing of our children. It's about parents being armed with the knowledge to be able to begin an enquiry into asking the right questions about what is going into their kids' bodies and what the consequences are. Sarah connects us with this bigger picture and asks parents to consider what else can be done with regards to preserving and protecting our environment for our kids and future generations.

I got to experience this 'bigger picture' when I quit my corporate career after working

in the pharmaceutical and the diagnostics industries for over 21 years. Finally able to let go of my corporate identity and the significance that I attached to it, I took on the voluntary role of being a foster carer. Without any children of my own, I suddenly found myself responsible for the life and future of another human being who was experiencing the challenges of adolescence. Whilst I haven't always known what to do as a carer, like many parents, I found myself caring for this young person the way my mother cared for me. When she invited me into the kitchen to cook, it wasn't my help that she was seeking but rather that she wanted to engage me in the cooking process in the hope that I would ultimately learn to cook for myself. In most cases, we care for our kids and young people the way that we have been cared for by our parents. When my parents were raising my sister, brothers and myself, they weren't just raising us so that we would grow up and be independent; they were effectively raising the next generation of parents. Whilst this may not have consciously been my parent's intention, as a foster carer, it became mine. I was no longer simply caring for the needs of a young person; I was also caring for this young person in a way that fostered the next generation of parents. Pam Leo's words come to mind here, 'How we treat the child, the child will treat the world'. In this context, the personal care products we used, the food we consumed, the medications we ingested all took on a new significance. By asking the question: if we care for our children in this way are we also teaching them to eventually become conscious parents themselves? Could guiding this generation of kids in chemical free living effectively translate to guiding the next generation, and the next generation?

Chemical Free Kids is one of the first books of its kind in Australia, and one of a few in the world to tackle the issue of chemicals and their impact on human health, and specifically on children and young people. Sarah has interviewed over 60 Australian families and children who have been affected by chemical exposure. Telling their stories takes the reader out of a conceptual understanding of how toxic chemicals impact the body and allows the reader to make a direct connection with the impact on human health. Through their stories she brings new insights into a world of toxicity and related diseases caused by environmental chemicals that have gone relatively unnoticed for a long period of time.

As a chemist, it's about time we had a book that asks us to re-evaluate the 'machinery of chemistry', rethink our relationship with the community that we serve and to consider the broader environmental impacts of the chemicals that we make. We also need to ask ourselves better questions, like, 'Are there chemicals that we can produce that will not be harmful to human health or the environment?' or perhaps, 'Do we really need these new chemicals at all?'

Sarah, thank you for this compelling work!

Dr Edward Kachab, PhD.