



Chemical inheritance

Margot Wallström

describes how mothers and their babies are at risk from a host of little-understood substances, and outlines steps to test and control them.

If you have ever held a newborn baby, you will know what a powerful feeling that is. The very essence of existence seems to be concentrated in that one moment. A new life, so innocent, so frail and yet so trusting. We, the adults, are the ones who have to protect and guide this new person, and it is humbling to be entrusted with such a huge responsibility.

But the curious newcomer to this world has already been affected by our lifestyles, and will continue to be as he or she grows up. Artificial chemical substances – a product of modern times – are all around us and inevitably find their way into our bodies. Our babies receive their first dose when they are still in their mothers' wombs. More chemicals reach them through their mothers' milk and through sources of pollution in their environment and food. Children are more exposed than adults because of their size and diet, and are also more severely affected since their internal organs, neural and hormonal systems and brains are still developing.

There is simply no getting away from chemicals. The last time the number of chemical substances was recorded in the European Union, more than 20 years ago, there were over 100,000 of them. In the United States, 80,000 substances are registered for use. In both cases, only a fraction of all these chemicals have been properly examined for their

effects on human health and the environment. There is very little information on the safest ways of using them. Even women living in remote parts of the world, such as Inuit women, have high levels of persistent and bioaccumulative substances in their breast milk. This is not because they have used the products containing these substances, but because the substances can travel long distances, harming health and destroying the environment as they go.

Last year, I had my own blood tested. I was checked for 77 problematic substances: 28 of them were found. They included carcinogenic PCBs (polychlorinated biphenyls) – industrial chemicals that were previously used in electrical equipment to prevent it from catching fire – and the pesticide DDT, which was banned in the 1970s in Western countries after killing birds feeding on treated land. Doctors told me that my levels would have been higher if I had not breastfed my two sons, thus passing these substances on to them. Breastfeeding remains the best start we can give our children in life, but this discovery has strongly reinforced my conviction that substances that accumulate in our bodies and in the environment should be used under very strict control, if at all.

Now that PCBs and DDT have been banned in many countries, the levels recorded in breast milk and the environment have decreased. This shows that joint action against the risks of chemicals is effective, even though the improvement is a lot slower than we would wish. It is high time that the international community intensified its efforts to enhance chemical safety. During the 2002 World Summit on Sustainable Development in Johannesburg we pledged ‘to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment’.

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It is difficult to establish clear cause-and-effect correlations as we know so little about chemicals, and even less about the complex interactions that may be taking place between different substances. But we have noticed worrying trends that are believed to be partially linked to chemicals. Allergies, cancers and threats to reproductive health are on the rise in the EU. Recent statistics show that cancers have increased by 63 per cent in France over the last 20 years. Studies indicate that the sperm counts of young men in Europe have dropped over the last few decades, and that incidents of testicular cancer are increasing. It is estimated that one couple in seven has infertility problems. In animals, too, we have noted worrying signs of endocrine disruption, such as sex changes in molluscs that have been in contact with anti-fouling agents.

This list of health and environmental problems suspected of being linked to chemicals could be made much longer. As many of these effects are the insidious results of long-term exposure to a mix of chemicals, it is difficult to trace them back to the ones that have caused them, and to prove the links conclusively.

This is why the European Union is moving towards a new system for chemicals management – REACH, standing for Registration, Evaluation and Authorisation of Chemicals. REACH will require industry to test, assess and provide safety information on all substances produced in significant quantities. This essential information will have to be communicated to users further down the supply chain – like manufacturers who

use chemicals in their own production processes – and be made publicly available. The use of hazardous chemicals – such as those that can cause cancers, mutations, or problems with reproduction, or those that accumulate in our bodies and in the environment – will require a specific permit or may be prohibited. This will send a clear message to industry: look for, and develop, safer alternatives!

This proposed new legislation, which will now be discussed by the European Parliament and the Council of EU Ministers, has been a test case for the application of the sustainable development approach. While our primary goal has been to achieve a high level of protection for human health and the environment, we have made sure that the costs and bureaucracy for industry will be limited, meeting its needs for clear and transparent rules that stimulate innovation and growth. REACH thus strikes a balance between environmental, social and economic concerns – and it will help us meet the commitment we made in Johannesburg.

REACH is not a miracle cure that will eliminate the problematic substances that are already spread widely throughout the environment. But it can help us make sure that the risks of chemical substances are identified early enough to prevent many of the ill-effects that could arise from careless use. We need chemicals. They are an integral part of modern society, providing much of the comfort and convenience of everyday life. But they need to be handled and used in a safe way, and we have to get rid of those that pose unmanageable risks.

More than anyone else, newborn babies – and the children they later become – have a right to grow up in a healthy environment. But women and men too have a right to a safe environment, safe working conditions and safe products. It is in our hands to make tremendous progress towards safe chemicals management in the EU, and in so doing I am sure we shall set an example for other countries as well

Margot Wallström was the European Commissioner for Environment until 2005.

PHOTOGRAPH: Branson