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**Committee Clerk**

Standing Committee on Environment and Sustainable Development  
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**The Case for Government Support for a Precautionary Principle for the Canadian Environmental Protection Act (CEPA)**

The Society of Obstetricians and Gynecologists of Canada (SOGC) is pleased to have the opportunity to address the Committee to comment on the framework that protects all Canadians from potentially harmful chemicals in the environment. Our concern is heightened by the body of science that demonstrates how the physical environment from conception to birth affects our health and the health of future generations. This awareness results from the study of the developmental origins of adult health and disease, which has been explained by the relatively recent understanding of epigenetic modifications of the genetic code.

Canada became a world leader when it became the first country to consider banning bisphenol A, or BPA in baby bottles back in 2008. That was an admirable move, and was based on good evidence available at the time. But since then, science has discovered that, in spite of the ban, breast-fed babies have a higher exposure to BPAs than do formula-fed babies. In the environmental chain, we are clearly missing the most important source of BPA exposure to babies —the maternal environment and mother's milk. For the fetus his/her environment is made up of everything that its mother has been exposed to during her lifetime.

The only way to protect women and children from the unknown effects of these exposures is for government to act in the interest of social justice and adapt the precautionary principle for the CEPA.

**Maternal Exposure**

BPA is a paradigm example and is an acknowledged neurotoxin that was banned in baby bottles. It is an endocrine disruptor and a synthetic estrogen that acts at the human estrogen receptor.

The safe level of human exposure is debated and, in the absence of agreement, the SOGC believes that a precautionary principle must be invoked. BPA should not be used in food packaging, and the public should be made aware of where it is in use, so that they may make prudent decisions in the interest of their own health and that of their children. While the public should be reassured that Canada has a rigorous process in place, and we applaud the many steps that have been taken to reduce BPA exposure, it is nonetheless a very common compound, to which women are widely exposed. Women should be able to make their own decision as to whether they wish to be exposed to the compound, and this can only happen with product labelling. Failure to label would be an ethical error of paternalism.

### **Controlling women's exposure to chemicals**

With respect to the Chemical Management Plan the SOGC cites additional U.S. data that shows women are exposed to at least 43 separate chemicals during pregnancy. We find these sorts of chemicals in the fluid that bathes the egg in the ovary, in the amniotic fluid, and in the bodies of newborn infants. Some of these substances may be harmless, some are not, and others we simply don't know about or may be harmful or not depending upon other variables.

Because of these additional unknowns we urge the Chemical Management Plan to adopt the precautionary principle. Chemicals released into our environment can be as potent as or more potent than prescription medications, and should be held to the same standard of evidence. The burden of proof of safety must lie with the manufacturer. The public must be able to access the reports. Mothers need as much information as possible to protect their unknown children.

### **Measuring the impact of chemicals on children**

Environmental compounds have been problematic for regulators in North America. It is very difficult to isolate the effect of any single compound on a fetus or child, because the impact will be mitigated or magnified by other aspects of the environment. The adverse effect of BPA for example, can be mitigated in the mouse by feeding it an enhanced diet with nutritional supplements. Dietary inadequacy, stress, poverty, additional toxins are all important co-factors that affect how toxins or these compounds will be exposed to the developing fetus. But not all these adverse effects can be mitigated in the population. The impact on vulnerable populations may be lost in the aggregate data that is reported. In Canada we know that we have super-polluted communities, and we know that we have water systems that are heavily contaminated by mercury — often the same communities with high levels of food insecurity and social disruption. There is no level playing field when it comes to the environment's role in the creation of new life.

Obstetricians and gynaecologists are also aware of the magnified impact, and multigenerational harm these compounds can exert on the vulnerable populations. Epigenetic studies demonstrate you only have one chance for exposure and you only have one chance for protection.

### **What can be done to protect mothers and babies**

We can't improve these outcomes without the assistance of the Minister of Environment and the Minister of Health. Our immediate goal for the future is to ensure that healthy Canadian babies are born at the end of each pregnancy, free of environmental toxins. We applaud the cooperation between the Ministry of Environment, the Minister of Health and the Minister of Indigenous Affairs so that we have an Act that safeguards our health from the moment we are born and in the months leading up to that.

We urge that in the review of the CEPA the following actions:

1. We urge that the precautionary principle be adopted as a guiding principle. The SOGC joins other groups including the International Federation of Gynecology and Obstetrics, the Endocrine Society, The American College of Obstetricians and Gynaecologists, the Royal College of Obstetricians and Gynaecologists, and the Canadian Paediatric Society in accepting that this is the only ethically justifiable position. This principle accepts there is so much overwhelming scientific evidence that we are morally obliged to take action. Because of the complex interactions and the many unpredictable factors that augment or mitigate harm, we will never have the kind of clear evidence that we might wish to see. We should not wait to take action against compounds that we know are endocrine disruptors. The more that we wait, the more we are exposing fetuses and children to these compounds. We urge you to invoke this principle in the Canadian Environmental Protection Act.

2. Health standards familiar to the surveillance of prescription medications should be applied equally to environmental compounds that we unknowingly ingest.
3. Urgent action needs to be taken to protect the Canadian public and women of reproductive age, in particular, from such compounds as Triclosan and Bisphenol A.
  - a. We urge Environment Canada to look to the FDA's recent move to ban triclosan from soap as an example of something that we in Canada could easily be emulating.
  - b. BPAs should be banned from food containers, and any alternate that is proposed should be demonstrated to be a safe alternative before it is approved for use in Canada.
4. The Canadian public should be advised of the presence of known endocrine disruptors in consumer products, so that they can protect themselves. Failure to provide clear labelling is paternalistic, and inappropriate in 2017.

These are a few steps that can be taken in short order that have the potential to give healthier beginnings for our children in Canada. All of us must increase our knowledge and awareness of the world we live in. And where we know there are risks, we need government to step in to help protect the health of its citizens.

Sincerely,



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