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**Re: Canada Gazette, Part I, Volume 155, Number 52: Single-Use Plastics Prohibition Regulations, December 9, 2021**

Dear Tracey Spack,

The [Canadian Association of Physicians for the Environment](#) (CAPE) welcomes the opportunity to make this submission on Canada's single-use plastic regulation draft. Please accept the following comments and related references.

CAPE-ACME is a national physician-led organization working at the intersection of health and the environment. As physicians with a record of research and advocacy around evidence-based concerns relating to critical environmental health issues in Canada, CAPE favours banning the single-use plastic items as proposed by the federal government (bags, stir sticks, cutlery, straight straws, six-pack rings and some takeout containers).

We support the Issue statement in the Executive Summary of the [Regulatory Impact Analysis Statement](#) that says, "Current scientific evidence indicates that macroplastic pollution poses an ecological hazard, including physical harm, to some animals and their habitat. Canadians consume substantial quantities of single-use plastic manufactured items (SUPs) every year. These SUPs are designed to be discarded once their single-use has been fulfilled. A share of that waste becomes plastic pollution. Action is needed to restrict or eliminate SUPs that pose a threat of harm to the environment."

Given our focus on the intersection between environmental and human health, with an ecological lens, CAPE wishes to reinforce that the problem of plastics is not just one of the eyesores or pollution in the oceans or landfills. Plastics are an environmental problem, but they are also connected to adverse human health outcomes.

Examining the cradle-to-grave cycle of plastics - from **extraction to production to disposal** - reveals various human health impacts. Exposures to plastics by humans occur in a multiplicity of ways, from [inhalation to absorption](#), with varying effects and outcomes at different stages of life. From **infancy to adulthood**, exposures and outcomes are evident.



In close proximity to petrochemical industry sites that feed plastics production, residents of so-called fenceline communities disproportionately face respiratory illness, rare cancers and other adverse health outcomes. For example, Aamjiwnaang First Nation in Chemical Valley resident Beze Gray says ["the slow colonial violence that began as microscopic damage has accumulated into lasting harm on the living, humans and nonhumans, lands and water."](#)

Exposure to toxic dusts, vapours, ash and hazardous waste streams in the disposal of plastics reinforces a need to limit plastic production to essential uses and eliminate toxic chemicals in plastics.

Most plastics [do not readily biodegrade but can be embrittled and fragment into microplastics](#) leading to growing [concern about the associated ecosystem and human health repercussions](#). A recent [study reported that infants have more microplastics in](#) their feces than adults. Infants' mouthing behaviour, crawling on carpets, chewing on textiles, and various products including teethingers, plastic toys, feeding bottles, utensils such as spoons all potentially contribute to exposure.

Accumulation of microplastics into organs following exposure, inflammation, cell shutdown and metabolic issues are of concern. By allowing ubiquitous plastics exposures by children, we are contravening their right to healthy development. [Dr. Kurunthachalam Kannan](#) says children's products should be made free of plastics.

Workers in plastic production processes also face adverse health outcomes from exposure to toxic chemicals involved. Research on women who work in [plastics manufacturing has found an elevated risk of breast cancer](#). The study authors hypothesize a link between exposures to carcinogens and endocrine disruptors. Though we often think of breast cancer as a disease of ageing women, plastics workers have been diagnosed as young as their early thirties. Asthma, headaches, nausea, nosebleeds, vertigo, reproductive disorders, miscarriages and other cancers are [reported by women working in plastics manufacturing](#).

Exposure to bisphenols is also of concern. Research with cashiers has illustrated that [BPA levels in cashiers' bodies more than doubled](#) from the beginning to the end of their shifts due to the exposures from handling receipts coated with the plasticizer. Microplastics exposure can cause toxicity through [oxidative stress, inflammatory lesions, increased uptake or translocation, metabolic disturbances, neurotoxicity, and increased cancer risk](#) in humans, [according to research](#). Increased use of disposable plastics has concerned physicians saying we must continue to [push efforts to limit plastics](#) from entering the biosphere and impacting our health.

Given the human health concerns, in addition to the ecological harms, of single-use plastics, CAPE supports the following concerning single-use plastics prohibition regulation:

1. Bring the regulations into force by the end of 2022.
2. Remove the exemption for exports of the banned items.
3. Ensure the regulations do not result in regrettable substitutions or result in the use of more plastic.



4. Expand the list of banned items to include those harmful and non-recyclable single-use plastics identified in the government's [Discussion Paper](#) (e.g. cold and hot drink cups and cigarette filters).
5. Expand the list of banned food service ware to include those with problematic additives, such as bisphenols, PFAS, phthalates and pigments.
6. Establish an efficient process for an annual review of the regulation with a view to banning additional plastic manufactured items and additives according to the hazard they pose to the environment and/or human health.

The significant response and volume of submissions by stakeholders in the comment period following the October 7, 2020, Environment and Climate Change Canada discussion paper on the Canadian Environmental Protection Act Registry outlining a proposed integrated management approach to plastic products to prevent waste and pollution is evidence of the concern and the support for the proposed regulations.

Please accept this comment as CAPE's support for Single-Use Plastics Prohibition Regulations. We commend the government for its actions to restrict or eliminate SUPs that pose a threat of harm to the environment, leading to improved environmental and human health protection.

We recommend addressing weaknesses in the draft regulation concerning the simplification of the definitions of products and exports and record keeping. We support all measures that address the current scientific evidence that indicates macroplastic pollution poses an ecological hazard.

CAPE is pleased to answer any questions you may have about this comment and support the government in its actions for improved environmental health.

Sincerely,

Raissa Marks  
Interim Executive Director

Jane McArthur  
Toxics Campaign Director



## Additional Resources and References:

[Breast cancer risk in relation to occupations with exposure to carcinogens and endocrine disruptors: a Canadian case-control study](#)

[Canada's plastics problem | Canada's National Observer: News & Analysis chemical exposure and plastics production: issues for women's health | A Review of literature](#)

[Chemicals Must End](#)

[Di-\(2-ethylhexyl\) adipate and 20 phthalates in composite food samples from the 2013 Canadian Total Diet Study](#)

[Experts laud Montreal's plan to cut back on single-use plastics but say Canada has far to go](#)

[Experts raise concerns about tampon applicators being excluded from federal plastics ban](#)

[Exposure to Chemicals in Plastic](#)

[Fenceline and Disease Cluster Communities: Living in the Shadow of Heavily-Polluting Facilities](#)

[Foetuses can be affected by microplastics, scientists find](#)

[Full article: Transitioning the Chemical Industry: The Case for Addressing the Climate, Toxics, and Plastics Crises](#)

[Guest column: Everyone should have legal right to healthy environment](#)

<https://chemical-edge.com/HOT-PLASTICS-IN-WINDSOR/>

<https://www.beyondplastics.org/plastics-and-climate>

<https://www.ciel.org/news/plastic-crisis-demands-a-response-centered-on-human-rights/>

<https://www.sciencedirect.com/science/article/abs/pii/S0048969720374039?via%3Dihub>

<https://www.sciencedirect.com/science/article/abs/pii/S0304389421028302?dgcid=author>

[Industrial plastic is spilling into Great Lakes, and no one's regulating it, experts warn](#)



[IPEN's Toxic Plastics Campaign](#)

[Microplastics are wreaking havoc on human cells | Canada's National Observer: News & Analysis](#)

[More microplastics in babies' faeces than in adults' – study](#)

<https://www.thefreelibrary.com/Not+a+flower+shop%3A+exploring+breast+cancer+risk+and+gender+bias+in...-a0370320649>

[Opinion | The Proliferation of Plastics and Toxic](#)

[Our Chemical Selves - Gender, Toxics, and Environmental Health : Edited by Dayna Nadine Scott](#)

[Overview of known plastic packaging-associated chemicals and their hazards](#)

[Phthalate and novel plasticizer concentrations in food items from US fast food chains: a preliminary analysis | Journal of Exposure Science & Environmental Epidemiology](#)

[Plastic recycling could be more dangerous than you think](#)

[Plastic Recycling Schemes Generate High Volumes of Hazardous Waste](#)

[Plastic Recycling: That's Not a Thing](#)

[PLASTICS, EDCs & HEALTH](#)

[Plastics, the circular economy and Europe's environment](#)

[REPORT: The New Coal: Plastics & Climate Change — Beyond Plastics - Working To End Single-Use Plastic Pollution](#)

[Synthetic chemical in consumer products linked to early death, study finds](#)

[The new Radium Girls: Modern echoes](#)

[We need to talk about the connection between chemicals and climate – ChemSec](#)