

ENDOCRINE DISRUPTION TRACKER TOOL

Environmentally ubiquitous endocrine disrupting chemicals penetrate and alter the fabric of our bodies. The Endocrine Disruption Tracker Tool (EDTT) seeks to identify the presence of chemical endocrine disruptors by focusing on their impact on emotions. EDTT is adapted from a Premenstrual Symptom Tracker, which tracks emotional symptoms caused by the fluctuation of hormones during the menstrual cycle. EDTT expands the functional range to cover emotional symptoms caused by the production and interplay of both hormones and endocrine disrupting chemicals.

INSTRUCTIONS

Complete this 10-day review examining emotions considered “negative”, “unpleasant”, or “unhappy”. Take a moment each day during the investigation period to make observations about the emotional symptoms listed here. Note your observations in the chart.

Describe the emotional symptom.
How was it experienced and expressed?
What impact did it have on your daily life and your well-being?

Describe the situation in which you experienced the emotional symptom. Did the context explain or warrant the occurrence and intensity of the emotion? Or did it seem an overreaction? Did the emotion reflect an abrupt change of mood, appearing to descend out of the blue? Reflect on the possible influence of exposure to chemical disrupting chemicals on the emergence of the emotion and the degree to which it was felt.

Pay attention to emotions that you experienced on your own, but also to those you shared with or observed in others.

time and place of the observation

felt depressed
felt sad, “down” or “blue”
felt hopeless or worthless

felt anxious
felt tense
felt “keyed up” or “on edge”

experienced mood swings
suddenly felt sad or tearful
was sensitive to rejection
feelings were easily hurt

felt angry
felt annoyed or bitter
was irritable

felt distracted
had difficulty concentrating
was agitated or frenzied

felt lethargic
felt tired or fatigued
suffered a lack of energy

felt numb
took less interest in usual activities

had increased appetite or overate
had cravings for specific foods
lost appetite

slept more or took naps
found it hard to get up
had trouble getting to sleep
had trouble staying asleep

felt overwhelmed
was unable to cope
felt out of control

WHAT WE CAN LEARN WITH EDTT

The invisibility, extreme mobility, and complex interactivity of endocrine disrupting chemicals pose a major challenge for the gathering of evidence about their adverse effects on humans and wildlife. Studying endocrine disruptors necessitates the examination of a plurality of interactive factors, including the net effects of complex chemical mixtures; tissue-specific responses; critical windows of exposure across lifespan; the intricate problematics of epigenetic effects, which alter susceptibility to diseases throughout life and intergenerationally; and anomalous dose-response relationships making exposure harmful even at low concentrations. Endocrine disruption is thus a complex, multilayered issue that makes it difficult to establish linear causal links between exposures to endocrine disrupting chemicals and adverse health outcomes. Accordingly, EDTT cannot give definite answers about the state of endocrine disruption or the extent to which chemical endocrine disruptors affect the emotions. Rather, EDTT has been designed to raise awareness of the hidden, slow-moving, and emerging realities of chronic chemical disruption.

Locating the effects of endocrine disrupting chemicals in our anxiety, sadness, sleeplessness, irritability, and difficulty to concentrate foregrounds our shared – though unevenly – fragility and vulnerability vis-à-vis the chemical transformation of our planet. Reflecting upon the mobility and interactivity of chemical endocrine disruptors, and the porosity of the body as it absorbs and excretes chemicals, unsettles the atomistic conception of humans as bounded individuals, who are divorced from the broader collectivity of non-human life in a shared environment. Contemplating, reflecting upon, and experiencing the far-reaching effects of endocrine disrupting chemicals initiates cross-species solidarities and action rooted in interconnectedness, interdependency, and mutual becoming in the ever-changing and diminishing world. The question of what is to be done thereby emerges: how can we confront the power relations that make possible the chemical colonization of humans, other organisms, and the environment? How do we foster and exercise solidarities to oppose collectively what cannot be prevented by each of us individually?

EDTT
Endocrine Disruption Tracker Tool

© Lenka Veselá 2022

design and illustration
© Kristýna Sidlárová

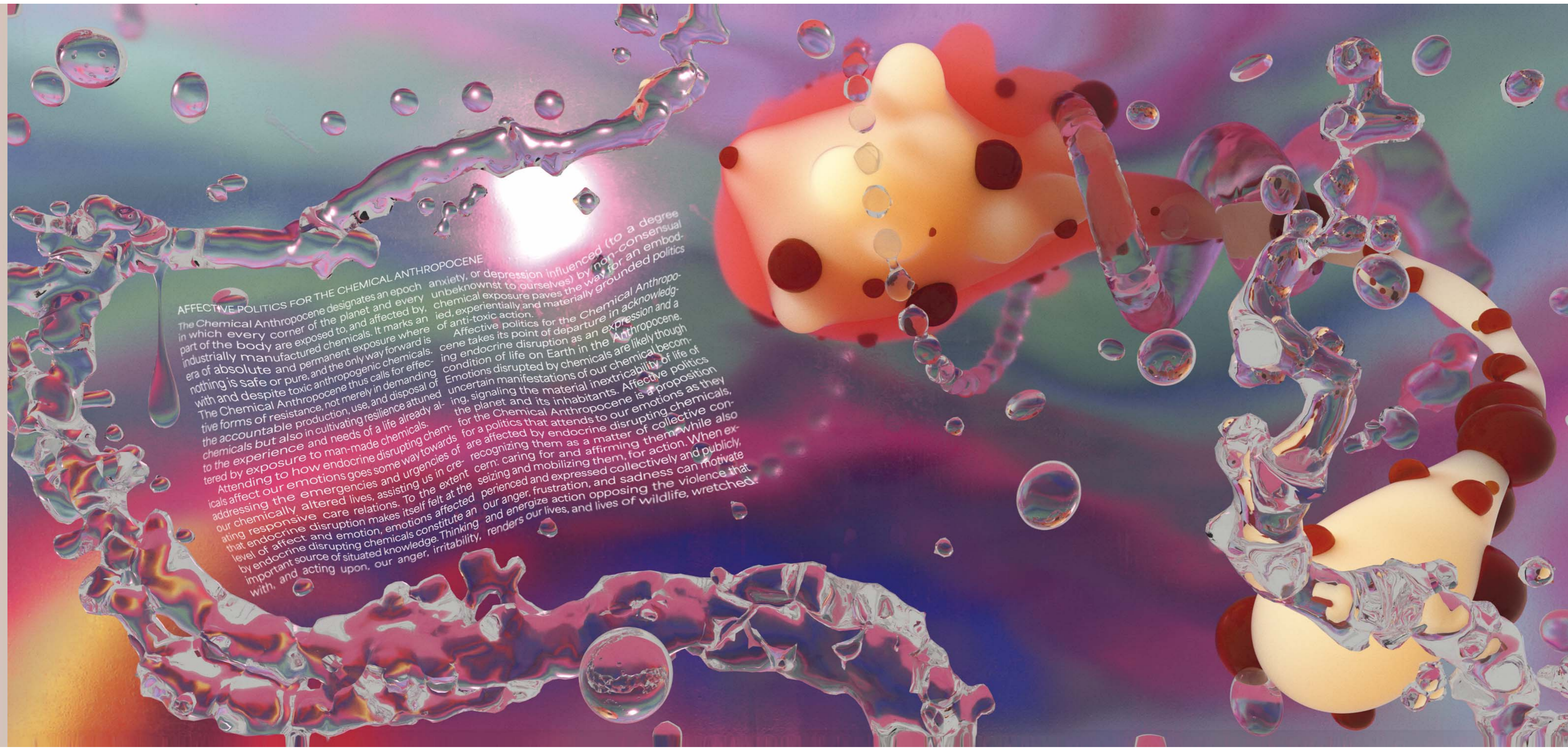
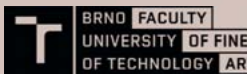
typefaces
Zephyr by Sophia Brinkgerd and Leonhard Laupichler
Area by Blaze Type

This is an open access publication licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

printed by HRG Litomyšl

ISBN 978-80-214-6039-3

created with the support of
Faculty of Fine Arts, Brno University of Technology



AFFECTIVE POLITICS FOR THE CHEMICAL ANTHROPOCENE
The Chemical Anthropocene designates an epoch in which every corner of the planet and every part of the body are exposed to, and affected by, industrially manufactured chemicals. It marks an era of absolute and permanent exposure where nothing is safe or pure, and the only way forward is with and despite toxic anthropogenic chemicals. The Chemical Anthropocene thus calls for effective forms of resistance, not merely in demanding the accountable production, use, and disposal of chemicals but also in cultivating resilience attuned to the experience and needs of a life already altered by exposure to man-made chemicals. Attending to how endocrine disrupting chemicals affect our emotions goes some way towards addressing the emergencies and urgencies of our chemically altered lives, assisting us in creating responsive care relations. To the extent that endocrine disruption makes itself felt at the level of affect and emotion, emotions affected by endocrine disrupting chemicals constitute an important source of situated knowledge. Thinking with, and acting upon, our anger, irritability, anxiety, or depression influenced (to a degree unbeknownst to ourselves) by non-consensual chemical exposure paves the way for an embodied, experientially and materially grounded politics of anti-toxic action. Affective politics for the Chemical Anthropocene takes its point of departure in acknowledging endocrine disruption as an expression and a condition of life on Earth in the Anthropocene. Emotions disrupted by chemicals are likely though uncertain manifestations of our chemical becoming, signaling the material inextricability of life of the planet and its inhabitants. Affective politics for the Chemical Anthropocene is a proposition for a politics that attends to our emotions as they are affected by endocrine disrupting chemicals, recognizing them as a matter of collective concern: caring for and affirming them, while also seizing and mobilizing them, for action. When experienced and expressed collectively and publicly, our anger, frustration, and sadness can motivate and energize action opposing the violence that renders our lives, and lives of wildlife, wretched.



WHAT ARE ENDOCRINE DISRUPTING CHEMICALS?
Endocrine disrupting chemicals are industrially manufactured chemicals that interfere with the function of the endocrine system.

HOW DOES ENDOCRINE DISRUPTION AFFECT HUMANS AND WILDLIFE?

Developmental and lifetime exposure to endocrine disrupting chemicals via environmental pathways increases susceptibility to a range of pathologies in humans and animals. Exposure to endocrine disrupting chemicals has been linked to hormone-sensitive cancers, changes to sexual and reproductive development and functions, lower sperm counts, infertility, endometriosis, early puberty, autoimmune diseases, diabetes, obesity, osteoporosis, cardiovascular problems, growth disorders, and neurological and learning disabilities. The Endocrine Disruption Tracker Tool focuses on the effects on neurodevelopmental and brain function, and thus also on our thoughts, feelings, and motivations.

WHAT ARE COMMON SOURCES OF ENDOCRINE DISRUPTING CHEMICALS?

Approximately eight hundred chemicals – among the hundreds of thousands of synthetic chemicals in existence – are suspected or known to possess endocrine disrupting properties. Ubiquitous endocrine disruptors include Bisphenol A (BPA) in plastic bottles, food containers, and liners of metal food cans; phthalates and parabens in cosmetics; detergents in household cleaners; and flame retardants in furniture and electronics. Besides their presence in everyday consumer products, endocrine disrupting chemicals occur in industrial processes, including polychlorinated biphenyls used as industrial lubricants and coolants; chemicals discharged during oil and gas extraction by hydraulic fracturing technologies; and pesticides for protecting crops from weeds, insects, rodents, and fungi. Additionally, industrial wastewaters and livestock waste are major sources of endocrine disrupting chemicals.

IS EXPOSURE TO ENDOCRINE DISRUPTING CHEMICALS PREVENTABLE?

No. Endocrine disrupting chemicals are impossible to contain and enter the environment. Once released, they circulate through the ground, water, and air, eventually diffusing throughout the entire environment. Effective prevention of exposure to chemical endocrine disruptors is thus not possible.

WHAT IS THE ENDOCRINE DISRUPTION TRACKER TOOL?
The Endocrine Disruption Tracker Tool utilizes disrupted emotions as an index of endocrine disruption.

Look inside to learn more.