CHEMTrust
Protecting humans and wildlife from harmful chemicals

CHEMICALS IN OUR DAILY LIVES
A WOMAN'S PERSPECTIVE

WOMEN FACE A TOXIC CHALLENGE

Every day, European women are exposed to toxic chemicals that threaten their health, fertility and futures[1].

High healthcare costs and lost productivity from chemical-related illnesses (e.g. certain cancers and reproductive disorders) also pose a serious threat to the economy[2].

Women are disproportionately impacted by harmful chemicals due to biological, social and occupational factors[3].

1 BIOLOGICAL FACTORS

- Complex hormone system
- Complex reproductive system
- Higher levels of fatty tissue
- Potential pregnancy and motherhood

2 SOCIAL FACTORS

Some everyday products—like menstrual products, makeup, and cosmetics—are mostly used by women, but they can contain harmful chemicals.

3 OCCUPATIONAL FACTORS

Some jobs done predominantly by women can involve direct contact with harmful chemicals such as beauty salon workers, cleaners and cashiers.

WHAT CAN BE DONE?

REACH is the EU's main chemical safety law, designed to protect human health and the environment. However, it falls short in addressing the toxic risks women face.

With REACH now under revision, we have a crucial opportunity to strengthen it, putting health at its heart and ensuring better protection for women against harmful chemicals.

#StrongerREACH

BIOLOGICAL FACTORS

Infertility

Fibroids

Complex hormone system

Oestrogen is one of the main female sex hormones and plays a key role in regulating women's reproductive health[4]. Some chemicals, like BPA and certain phthalates (often used in plastics) are endocrine disruptors because they can disrupt the normal functioning of hormones like oestrogen, for example, by mimicking it in the body[5].

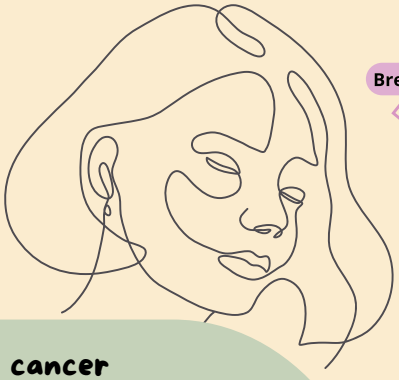
Endocrine disrupting chemicals have been linked to a number of reproductive diseases such as endometriosis, PCOS, endometrial cancer[5], fibroids[6] and adenomyosis[7], all of which can contribute to infertility and are associated with hormonal imbalances involving oestrogen[5, 6, 7, 8].

Endometriosis

Higher levels of fatty tissue

Some harmful chemicals are extremely persistent, toxic and can build up in the bodies' fat tissues[9]. Women, on average, have a higher body fat percentage than men, meaning they have greater capacity for these chemicals to accumulate and remain in their bodies[10].

Adenomyosis



Breast cancer

Breast cancer

- Is the most common type of cancer in women[11].
- One in eleven women in the EU will develop it during their lifetime[12].
- Around 30% of cases are thought to be preventable[13].

Environmental factors like lifestyle[14] and chemical exposure[15] can contribute to the risk of developing breast cancer, for example, BPA, a known hormone disruptor often used in plastics, increases breast cancer risk[15].

Complex reproductive system

Iron deficiency is common in those who menstruate due to regular blood loss[16]. Low iron levels have been linked to higher levels of certain toxic metals such as lead and cadmium in the blood[17].

Women are born with their entire lifetime supply of eggs meaning their eggs can potentially be exposed to chemical pollution for decades[18], whereas men continuously produce new sperm.

Higher levels of such chemicals (e.g. certain flame retardants) in women's blood have been linked to reduced egg counts and difficulty becoming pregnant[19].

Reduced egg counts can lead to earlier menopause[19].

PCOS

Endometrial cancer

Pregnancy

Pregnancy is a particularly critical period[20].

Exposure to harmful chemicals during this time has been linked to preeclampsia (a pregnancy complication with symptoms like high blood pressure), gestational diabetes and breast cancer[20].

Chemicals can also pass into the placenta and can disrupt foetal development, and potentially cause disease later in life[21, 22].

Motherhood

Mothers can pass harmful chemicals to their babies via breast milk, including chemicals linked to negative impacts on children's brain development[26, 27].

However, breastfeeding babies is acknowledged to be the best option for their health[28].

Did you know

Ingredient lists containing "fragrance" or "perfume/ parfum" can hide a mix of harmful chemicals that can harm our health, as companies are not obliged to disclose their chemical components[23].

Trend of earlier puberty in young girls

In Europe, biomonitoring studies show higher levels of harmful endocrine disruptors in younger people[29].

Endocrine disrupting chemicals may trigger early puberty in girls, potentially leading to body image issues, anxiety, and psychological distress. Psychological issues may also arise due to emotional and cognitive development not matching physical maturation[30].

SOCIAL FACTORS

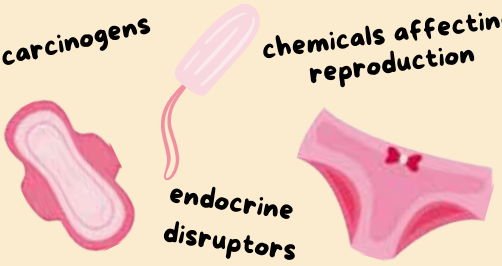
Certain products are primarily used by women and girls and can contain harmful chemicals linked to issues such as infertility and certain cancers[24].

Make-up and cosmetics

On average, women apply 9 different cosmetics daily and 15 weekly[25]. The cosmetics industry particularly targets young women and girls, which is concerning because their development is controlled by hormones, and many of these chemicals can disrupt normal hormonal functioning[24].

Menstrual products

Studies have found endocrine disruptors, including certain PFAS, phthalates, and bisphenols in period products[31, 32]. These are often used in a sensitive area, for extended periods of time, causing prolonged exposure.



OCCUPATIONAL FACTORS

Women are exposed to a disproportionate cocktail of harmful chemicals. Many jobs that are predominantly done by women involve direct contact with harmful chemicals (e.g. cashiers, cleaners and beauty salon workers)[24].

For example, hairdressers often come into contact with a variety of potentially harmful chemicals in hair care products[33].

Some hair straightening products release formaldehyde which can irritate the skin, eyes and respiratory system. Exposure can occur through inhalation or skin contact[33].

This briefing uses the terms 'woman' and 'female' due to a current lack of research looking at other groups, including but not limited to transgender, non-binary and intersex individuals. CHEM Trust recognises this data gap and makes no assumptions about the gender identity of individuals.

MORE ON REACH

REACH is the main EU chemicals safety law, introduced to better protect people, wildlife and the environment, while enhancing competitiveness and innovation. But it has failed to protect us and a revision is underway.

As elected representatives, MEPs have a responsibility to protect EU citizens' health.

By championing for a stronger, science-based REACH regulation, they can safeguard EU citizens, including women and children, from toxic chemicals, leaving a legacy of safety and justice for future generations.

Encouraging innovation into safer chemicals can boost competitiveness and establish the EU as a leader in the global green economy.

TAKE ACTION NOW

Post on social media about the issue and commit to taking action - tag us in.

@chemtrust.bsky.social

CHEM Trust

@chem_trust

SCAN THE QR CODE FOR EXAMPLE SOCIAL MEDIA POSTS & OUR REFERENCE LIST

WHO ARE WE?

chemtrust.org

CHEM Trust is an organisation led by scientists making us a trusted voice on chemicals. We work to protect people and wildlife from harmful synthetic chemicals, including extremely persistent chemicals and those that interfere with our endocrine system. We do this by ensuring that such chemicals are substituted with safer alternatives.

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We are registered in the EU Transparency Register as Chemicals, Health and Environment Monitoring Trust (CHEM Trust). ID number 27053044762-72. Registered Charity No. 1118182.

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