breast cancer uk. Prevention saves lives

May 2026

EDCs: Hiding in plain sight.

Campaign briefing

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Executive summary.

Endocrine Disrupting Chemicals (EDCs) are substances that build up and persist in the body over time and can interfere with its hormone system, leading to potentially harmful effects.

EDCs such as PFAS, parabens and bisphenols are now everywhere. They are added to our food wrappers, cosmetics, clothing, furniture and cookware. Our bodies are being flooded with an invisible cocktail of chemicals that are potentially putting us at greater risk of breast cancer, as well as of other diseases such as infertility and obesity.

We all deserve to know what's hidden in the products we use every day, so we can protect our health and hold those responsible to account. Breast Cancer UK provides information and resources to the public to help them make informed choices – but ultimately, it shouldn't fall entirely on individuals to protect our health. Governments, regulators and industry must take a lead.

Opinion polling shows the British public agrees, with almost two-thirds of people stating they believe businesses and the Government have a responsibility to protect the public from EDCs.

However, in practice, Britain has been falling behind its neighbours in protecting its citizens from the risks posed by EDCs, as the EU as a whole and individual countries such as France and Denmark take bolder steps to restrict their use.

Prevention.

1 in 7 women in the UK will at some point in their life develop breast cancer. Studies tell us that at least 30% of all cases could be prevented, saving thousands of lives, avoiding unnecessary suffering, and reducing costs on our NHS.

Breast Cancer UK exists to drive and promote the focus on breast cancer prevention. Data about EDCs' long-term impacts doesn't exist yet, but we don't believe the public can afford to wait until then to ban them. The sooner we act, the sooner we can protect our health.

Until it can be proved that these products are safe and do not have any adverse impact on human health, Breast Cancer UK believes the precautionary principle should prevail and their usage should cease.

We call on the UK Government to ban the use of EDCs.

We didn't ask for EDCs, and we don't have to put up with them.

Take action to support the Breast Cancer UK campaign - please visit:
www.breastcanceruk.org.uk/get-involved/campaign-with-us/Ban-EDCs/

Our vision.

A world where everyone is empowered to reduce their breast cancer risk.

Our mission.

Lead a movement to empower individuals, advance scientific research and reshape policy to reduce breast cancer risk for all.

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What are EDCs?

Endocrine Disrupting Chemicals (EDCs) are substances that interfere with the body's hormone system. Hormones are chemical messengers that help regulate vital bodily processes like development, metabolism and reproduction. EDCs can mimic, block or alter the normal signals of hormones, potentially leading to harmful effects [1].

Exposure to EDCs is now widespread in our environment and have been found in species all over the globe, from the Arctic to the Antarctic [2]. EDCs are found in many everyday consumer products, such as cosmetics, kitchenware, plastic bottles, food packaging lining, furniture, electronics, toys, and waterproof clothing. They can be found in the home and the workplace and are present in air, soil, dust, and water. They can enter our bodies through eating, drinking, breathing and absorption through our skin.

Common examples of EDCs include:

Bisphenols (e.g. BPA)	used in plastics, food packaging and tin linings.
PFAS 'forever chemicals' (e.g. PFOA)	found in non-stick cookware, takeaway food packaging and waterproof fabrics.
Parabens (e.g. butylparaben)	found in cosmetics, beauty products and some foods.
Phthalates (e.g. DEHP)	used in plastics (PVC and PET) and scented products.
Pesticides (e.g. DDT)	residues may remain on fruits and vegetables.
Flame retardants (e.g. PDBEs)	used in furniture, fabrics and transport materials.

Although the levels found in consumer products are typically low, many EDCs are persistent and bioaccumulative, which means they can build up in the body and environment over time [1]. This means that some chemicals, like DDT, can continue to pose an exposure risk by accumulating in our environment even after they have been banned [3].

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What are the risks?

Exposure to EDCs has been linked to a wide range of potential health effects.

These include effects on:

Metabolism
like obesity and type 2 diabetes.

Reproductive health
such as reduced sperm quality and menstrual problems.

Brain development
including learning difficulties.

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There are also concerns about the potential for EDCs to increase the risk of some hormone-sensitive cancers, including breast cancer [4, 7].

Population studies on the effects of environmental chemicals and breast cancer have mainly focused on PFAS, parabens and BPA. Links between certain PFAS and increased breast cancer risk have been reported in studies from Greenland, France, Taiwan and Denmark [8–11].

Findings for parabens are mixed, though early stage studies suggest they may interfere with normal breast development [12–14]. For BPA, population studies have not found a clear link with breast cancer risk [15]. However, these studies may not fully capture exposure during sensitive life stages or account for the active form of the chemical [16]. Animal studies indicate that BPA exposure in the womb may increase later risk of mammary cancer [17–19].

EDCs may also affect breast cancer risk from an indirect perspective. Paraben exposure may be associated with early puberty [20] and bisphenol exposure has been linked to obesity [5], both of which can increase the risk of breast cancer. Weight gain is of particular interest in breast cancer risk, as obesity is a well-established risk factor for postmenopausal women and men [21, 22].

Proving or disproving a clear relationship between EDC exposure and specific health outcomes is difficult. People are exposed to complex mixtures of chemicals whose combined effects can be more harmful than those of each chemical alone – called the 'cocktail effect' [23]. Timing also matters. We may be especially vulnerable to the effects of EDCs during critical windows of development, such as foetal development, early childhood and puberty, with consequences that may only appear later in life [24].

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Opinion polling.

Opinion polling commissioned by Breast Cancer UK has show that a high proportion of the UK population is concerned about the impact of EDCs on the health of themselves and their families. The results are clear that the Government and industry must take a lead in reducing the risks from these potentially harmful chemicals.

The polling found that:

52%

are concerned about the impact of EDCs on their health.

66%

believe that businesses have a responsibility to protect the public from EDCs.

67%

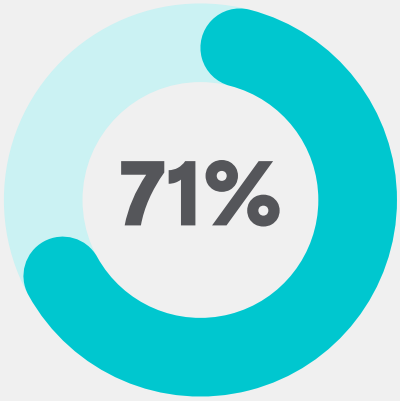
that the Government should restrict chemicals which have not been thoroughly tested.

It also found that:

- Around **half of those surveyed are concerned about the impact of EDCs on the health of their children** (47%).
- **Two-thirds believe that businesses shouldn't take risks with chemicals** when they don't know the long-term consequences (65%).
- Almost **two thirds of Brits believe that the Government** (61%) **has a responsibility to protect the public** from EDCs.

The clear public view that products and chemicals should be restricted if not thoroughly tested, and that government and businesses should not be taking risks with public health, is evidence of strong backing for the precautionary principle, which Breast Cancer UK and others have long called on ministers to adopt with regard to EDCs.

While there is widespread concern about the impact of EDCs, public awareness and understanding around specific products containing EDCs is low. A large majority of people want to see this rectified through much clearer labelling:



are unware of EDCs.

1 in 25

are aware of potential EDCs in children's toys.

Around one in four find it hard to understand health risks on:

food **27%** cosmetics **26%**

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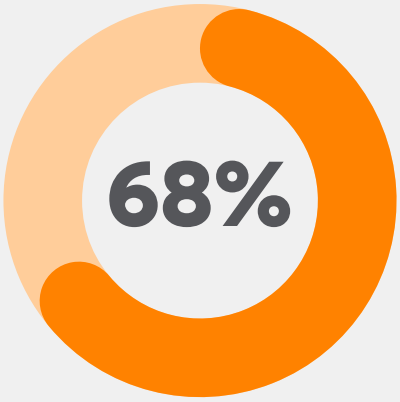
- Almost **two-thirds of people find it difficult to identify when EDCs are in products** (62%).
- Almost a third of people currently find it hard to gauge health risks on the labels of their detergents (31%) and personal hygiene products (29%).
- Around one in four find it hard to understand health risks on scented products (27%), food containers (27%) and cookware (23%).
- Less than 8% (1 in 13) of people are aware of the potential health risk from EDCs in furniture.

of people want it to be clear to them as a consumer when a product contains EDCs.

1 in 14

are aware of the potential health risk from EDCs in activewear



believe they have the right to know exactly what is in their products.

are concerned about the cumulative or collective impact of my products on their health.

The research was conducted by Opinion Matters, among a sample of 2001 UK Respondents (Nat Rep 18+). The data was collected between 06.03.2026 - 09.03.2026.

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International comparisons.

Recognition and restriction of endocrine disruption in chemicals is not new.

DDT was banned in most countries over 50 years ago, though primarily for its effects on the environment over human health [3]. Although regulatory and legal protections have improved since then, studies show that human exposure to some EDCs still exceed 'estimated tolerated' thresholds [25].

Regulatory approaches for chemicals differ across Europe.

EU

EDCs are primarily regulated under the REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) system alongside other chemicals [26].

In general, the EU applies a more precautionary, hazard-based approach than the UK.

EDCs are formally recognised as hazard classes under the Classification, Labelling and Packaging (CLP) regulation to improve the ability of consumers to identify products containing EDCs.

The EU has employed a hazard-based approach to regulating pesticides and biocides, meaning that substances identified as EDCs are generally not approved for use except under limited conditions [26, 28].

The EU has introduced a comprehensive ban on bisphenols in food contact materials [32].

UK

Following its departure from the EU, Great Britain adopted a UK REACH programme, which is overseen by the UK Secretary of State for the Environment and regulated by the Health and Safety Executive (HSE). Northern Ireland remains part of EU REACH, under the terms of the Brexit agreement [27].

The UK initially retained much of the EU framework after Brexit, there is increasing divergence in both the pace and scope of new restrictions. The UK is typically slower and less likely to restrict potentially harmful chemicals compared to the EU [27, 28].

The UK government has stated that it does not have plans to adopt these classifications into its CLP regulation [29]

UK measures concerning bisphenols are currently still under consultation [33].

EU

The EU is moving towards a group-wide restriction on PFAS, covering most non-essential uses [34], with some individual member states implementing national bans on PFAS in clothing, footwear and waterproofing [35].

UK

The UK approach to PFAS currently remains more limited in scope, focusing on reducing PFAS in specific applications such as firefighting foams [36].

Any similarities?

Restrictions on phthalates remain broadly similar between the UK and the EU [30, 31].

Overall, UK chemicals regulation has increasingly been diverging from – and lagging behind – that of the EU. Since the end of the Brexit transition period, the EU has imposed specific restrictions on around 49 chemicals, while the UK has restricted virtually none [37].

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Solutions and recommendations.

Addressing the risks of EDCs primarily requires stronger regulation. Strengthening regulation is the most effective way to protect public health from the risks of EDCs.

For the UK, this involves a dedicated shift from risk-based to hazard-based chemical assessment. Evaluating hazard places more emphasis on the inherently harmful properties of a substance (potential harm) rather than relying on estimating safe exposure levels (current harm).

Low-dose and long-term effects are important considerations for chemicals that interfere with hormone action, so a hazard-based approach is key [7]. Restricting groups of chemicals together, rather than assessing them one by one, could help prevent 'regrettable substitution', where one restricted substance is replaced with an alternative that poses equal or greater risk [38]. The proposed EU-wide restriction on PFAS is an ambitious example of this strategy, and there is an opportunity for the UK to match and even exceed the progress being made by the EU in this respect [27].

The means of assessment of risk is also crucial. Identifying EDCs remains complex, as their effects can vary depending on timing of exposure, mixture effects and individual susceptibility. Current testing methods do not always capture low-dose effects [28]. According to some estimates, there are many thousands of chemicals with endocrine-disrupting potential but currently only a small number are formally recognised in regulatory databases [7, 39]. Testing of these chemicals should take into account low-dose exposures and mixtures, as would occur in an individual's daily life.

Improved monitoring would help to address gaps. Systematic tracking of EDCs in the environment, food and consumer products, as well as expanded biomonitoring, could help identify higher-risk groups and inform more targeted intervention [40]. It would also allow policymakers to evaluate the effectiveness of new regulatory measures as they come into force.

However, until such measures are introduced and the impact of EDCs on human health can be more accurately assessed, we believe a precautionary approach must prevail.

Current problems.

- Risk-based assesment
- Testing can miss low-dose effects
- Mixture effects ignored
- Thousands of unrecognised EDCs
- 'Regrettable substitution'
- Insufficient monitoring

Recommendations.

- Hazard-based assessment
- Restrict groups of chemicals together
- Better testing methods
- Expande biomonitoring
- Systematic tracking of EDCs
- Precautionary principle

Expected outcomes.

- Gaps addressed
- More targeted intervention
- Improved regulation
- Stronger evidence base
- Reduced exposure
- Better health outcomes

Data about EDCs' long-term impacts doesn't exist yet, but we don't believe the public can afford to wait until then to ban them. The sooner we act, the sooner we can protect our health.

Until it can be proved that these products are safe and do not have any adverse impact on human health, Breast Cancer UK believes the precautionary principle should prevail and their usage should cease.

We call on the UK Government to ban the use of EDCs in all non-essential products.

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About Breast Cancer UK.

In the UK, around 59,000 women and 400 men hear the words 'you have breast cancer' every year. It is estimated that 1 in 7 women will develop the disease at some point in their lives. While not all breast cancers can be avoided, studies show that at least 30% of breast cancer cases are linked to modifiable risk factors.

Breast Cancer UK is unique as the only UK charity driving and advocating for a focus on the primary prevention of breast cancer by researching, educating and campaigning on all breast cancer risk factors.

We want to make breast cancer prevention a reality.

> Our vision is a world where everyone is empowered to reduce their breast cancer risk.

Our mission is to lead a movement to empower individuals, advance scientific research, and reshape policy to reduce breast cancer risk for all. We believe our work can have a significant impact on helping every individual reduce their risk of developing breast cancer.

Our focus is on understanding and highlighting the lifestyle risk factors of breast cancer, and those which stem from our environment and everyday products, such as the risks from EDCs. We also fund research that we believe could be a gamechanger in the field of breast cancer prevention.

In addition, we offer practical advice on how people can reduce their risk of getting breast cancer by making simple changes in their lives. However, we believe it shouldn't solely be down to individuals to make these changes – governments, regulators and industry can and should take the lead. This is why we also advocate for change, such as our campaign to ban EDCs.

Alongside the overwhelming human need, there is also a clear economic case to enhance breast cancer prevention.

A 2025 report estimated that breast cancer will cost the UK economy between £3.2–£3.5 billion in 2025 [41]. Without action, this figure could rise to a substantial £3.9–£4.2 billion by 2050 [41]. By implementing more substantial prevention policies, we could effectively reduce the economic burden of breast cancer and reduce its impact on the NHS.

> **Our commitment to combat breast cancer and promote prevention is stronger than ever. But we can't do it alone.**

Find out more about how you can support and get involved in our work:
www.breastcanceruk.org.uk/get-involved/

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