

## Action must now be taken

About one in 10 women in Europe will be diagnosed with breast cancer at some time in their lives.

Individuals can try to minimise their own exposure to oestrogen mimics (see box below) but these actions are not enough. Only EU and governmental action to ensure effective regulation of chemicals will provide the major health and environmental benefits that can be achieved for society as a whole.

HEAL and CHEM Trust are working to have man-made chemicals known to disrupt hormones removed from the market, and replaced with safer alternatives.

### What you can do to minimise exposure

1. Eat plenty of fruit and vegetables.
2. Buy organic food whenever possible.
3. Avoid unnecessary exposure to chemicals, particularly garden and indoor pesticides, homecare products, such as paints and detergents, and personal care products including cosmetics.
4. When possible, instead of using sunscreen to avoid sunburn, keep in the shade or cover up with loose fitting but tightly woven clothes and a hat.
5. Do not microwave food in plastic containers or wrapping.
6. Visit or write to your government representative or Member of the European Parliament (MEP) to express your concerns about hormone disrupting chemicals and their links to breast cancer. Ask for tighter controls over synthetic chemicals that disrupt our hormone systems.

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*This leaflet has been prepared by the Chemicals Health Monitor Project (CHM), which aims to improve public health by ensuring that key scientific evidence on the links between chemicals and ill-health are translated into policy as quickly as possible.*

Please see: <http://www.chemicalshealthmonitor.org>

*The Chemicals Health Monitor project was launched by the Health and Environment Alliance (HEAL) with other partner organisations.*

**Health and Environment Alliance (HEAL)** is an international non-governmental organisation that aims to improve health through public policy that promotes a cleaner and safer environment.



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**CHEM Trust** is a UK charity which aims to protect humans and wildlife from harmful chemicals so that they play no part in causing impaired reproduction deformities, disease or deficits in neurological function.



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## Breast cancer: Preventing the preventable

Exposure to certain man-made chemicals may be contributing to the breast cancer epidemic.

*Most women diagnosed with breast cancer have acquired the disease over their lifetime, rather than it being set in their genes.*



## Preventing breast cancer – the way forward

Expert scientists consider that enough is now known about hormone disrupting chemicals to call for action.

**“Given the known role of oestrogens in breast cancer, it would be prudent to reduce exposures to chemicals that can mimic oestrogen.”**

A review paper, *“Breast cancer and exposure to hormonally active chemicals: An appraisal of the scientific evidence”*, by Professor Andreas Kortenkamp, published in April 2008, is the latest in a series of documents highlighting the need to reduce health risks associated with hormone disrupting chemicals.

**“Despite the uncertainty, it is prudent to minimise exposure of humans, especially pregnant women to hormone disrupting chemicals.”**

Recommendations from the **Royal Society in the UK** in 2000.

**“In view of the magnitude of the potential risks, we strongly believe that scientific uncertainty should not delay precautionary action for risk reduction.”**

In 2005, the **Prague Declaration on Endocrine Disruption** called for measures to reduce the risks associated with endocrine disrupting chemicals. More than 200 scientific experts from across Europe and the USA have signed the Prague Declaration.



## Stopping breast cancer before it starts

The number of women developing breast cancer has increased dramatically throughout the European Union over the past 20 years.

Although women welcome the advances in screening and treatment that are helping to improve survival rates, they are also starting to ask questions: *“Could more be done to prevent so many women from developing breast cancer, and how much evidence is enough before taking action?”*

Each day, we are all exposed to dozens of synthetic chemicals found in food, cosmetics, and household cleaning products. Some of these chemicals are coming under increasing suspicion. Scientific evidence is growing that synthetic chemicals which mimic oestrogen and disrupt the so-called sex hormones may be playing an important role in the rise in breast cancer.

Currently, the different established risk factors for breast cancer account for only 50% of the cases diagnosed. They include age, genetics, alcohol consumption, exercise, use of hormone-replacement therapy (HRT) and the oral contraceptive pill. They also include a woman’s total lifetime exposure to her own natural oestrogen production. This means that breastfeeding, pregnancy, or early menopause, which lower a woman’s exposure to oestrogen by reducing her lifetime exposure to monthly periods, reduces the risk.

In recent years, scientists have investigated whether the man-made chemicals that mimic natural oestrogens might be contributing to the rapidly increasing number of cases of breast cancer. Although synthetic oestrogens, also known as hormone disruptors,

are less potent than natural ones, their combined effects may be adding to the risks.

Laboratory studies clearly demonstrate that a mixture of hormone disrupting chemicals can cause adverse effects even when each chemical is individually at a level that should cause no problem. Other studies suggest that exposures to these chemicals in the womb and around the time of puberty may be especially important. Recently, a study in Spain showed that some women newly diagnosed with breast cancer had higher levels of these synthetic oestrogenic mimics in their body fat.

More and more scientists are concluding that the combined findings of the various studies are strong enough to require precautionary action to reduce exposure to certain chemicals, particularly hormone disruptors.

For more information, see the following reports:

- **“Breast cancer and exposure to hormonally active chemicals: An appraisal of the scientific evidence”**, by Professor Andreas Kortenkamp, Head of the Centre of Toxicology, School of Pharmacy, London University.
- **“Factors influencing the risks of breast cancer – established and emerging”** by CHEM Trust, UK. A briefing for the public and breast cancer sufferers available in English and several other European languages.

Both publications were produced in the context of the **Chemicals Health Monitor** project and are available on the project website (<http://www.chemicalshealthmonitor.org/>) and the CHEM Trust website (<http://www.chemtrust.org.uk/>).

