Breast cancer has increased dramatically in Europe over the past 20 years, with a doubling of the number of cases in some countries over this time period. A recent report presented to the European Parliament suggests that by reducing our exposure to certain chemicals, the number of women who develop breast cancer could also be reduced.

The report by UK researchers summarises the evidence for the link between breast cancer and environmental influences. Exposure to hormone-disruptive chemicals, such as hormone replacement therapy (HRT) drugs, is thought to be a key factor, but there are other relevant chemicals found in the environment, such as pesticides and phthalates (widely used in consumer products, such as plastics). Individually, these may not cause breast cancer, but there is scientific concern about the "cocktail effect", where exposure to a combination of these chemicals may interact with hormones to trigger cancer. Studies to date have tended to focus on single chemicals, ignoring the possibility of chemical interactions.

Scientific data on the causes of cancer are difficult to assess, because there are many factors that may influence the appearance of the disease. Factors such as a woman's genetic disposition, her age when she has children, or the menopause play an important part in the development of breast cancer. However, laboratory and epidemiological evidence suggests that man-made chemicals which mimic the hormone oestrogen also contribute to breast cancer.

The report was commissioned by the Health and Environment Alliance (HEAL) and the Chemicals, Health and Environment Monitoring (CHEM) Trust, and supported by the European Commission’s DG Environment. HEAL and the CHEM Trust have called for a limit on exposure to a number of synthetic chemicals, which could be achieved by changing current legislation at EU level, in particular the REACh chemical safety legislation.

The report also suggests that studies are needed that focus on women's exposure during critical development phases, for instance before or during puberty, and not just around the time when cancer is diagnosed. Such studies would improve our understanding of the causes of the disease.

1. HEAL: www.env-health.org/
2. CHEM Trust: www.chemtrust.org.uk/
3. REACh: http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm


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