With thanks to Deena Metzger for the use of the poster “I Am No Longer Afraid”. Copies of the poster can be obtained from Donnelly/Colt: www.donnbellycolt.com
Deena Metzger is an author, storyteller and healer who has written many books on the issue of healing and her experience of breast cancer: www.deenametzger.com

Helen Lynn
Author

Politics and Prevention:
Linking breast cancer and our environment
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Breast cancer, the unexpected journey

No woman wants to go on the breast cancer journey. For many, breast cancer can be likened to an unexpected journey, one for which we are not prepared, and for which there are few guidebooks. Each woman’s experience is different. We might feel isolated, alone, and scared. But fortunately, or unfortunately, we are not alone.

Many women draw on the active breast cancer community which has grown up around this disease, working to politicise the issue and provide a forum for activism on prevention and advice on treatment and aftercare.

But what if the journey was preventable? The evidence to suggest that breast cancer is a preventable disease linked to our ever-increasingly polluted environment has been gaining ground since the early 1960s. Yet the cancer establishment and our governments refuse to see this mounting evidence as pointing towards breast cancer being an environmental disease. Their unanswerable question, “Where is the evidence?” begs the answer, “How much evidence is enough?”

The traditional approach to breast cancer, the very first line of defence, is that of researching the disease, giving treatment after diagnosis and trying to find a cure, rather than studying health and disease. Their unwavering question, “Where is the evidence?” focuses on lifestyle alone, while deflecting attention from the environmental and occupational risk factors. Detecting, treating and researching breast cancer doesn’t come cheap. The rising incidence of breast cancer is not sustainable, treatment is costly but, more importantly, the cost to the economy of lost lives is immeasurable.

Prevention is the most important corner stone in the foundation to overcoming breast cancer along with early detection, treatment and palliative care. It is more cost effective than treatment in the long run. Strategies to reduce exposure to toxic chemicals will also have a beneficial effect on other environmentally related diseases.

Primary prevention should be the basis for a EU wide strategy on breast cancer.

Risk factors for breast cancer

The conventionally accepted risk factors for breast cancer which increase the risk of getting the disease and over which we have little control are:

- Early onset of menarche (menstruation)
- Late onset of menopause
- Use of hormonal contraceptives
- Age
- Geographic location
- Family history
- Exposure to ionising radiation
- Cancer in the other breast
- Previous benign breast disease
- Mothers use of DES (Diethylstilboestrol)

Risk factors over which we may have some control:

- Diet
- Alcohol consumption
- Exposure to ionising radiation
- Age at first full term pregnancy
- Obesity
- Socio economic group
- Use of hormonal contraceptives
- Use of Tamoxifen
- Breast cancer drug
- Use of Hormone Replacement Therapy (HRT)
- Short breastfeeding history
- Second hand cigarette smoke

The missing risk factors

All of the conventionally accepted risk factors only account for 30-50% of all breast cancer cases, including the 10% of cases which are due to a family history of the disease or genetic predisposition. This leaves 50-70% of cases with no known cause. We believe this is where the environment and exposure to toxic substances play a major role.

A breast cancer cell is made not born. The only two risk factors we can be absolutely sure of in terms of developing the disease are: exposure to ionising radiation and being a woman. Men can get breast cancer too but compared to women the incidence is very small. With the exception of ionising radiation or carrying a known genetic mutation (family history or the genes BRCA1 or BRCA2), most of the other risk factors for breast cancer are connected to a cumulative lifetime exposure to female hormones, in particular, synthetic or natural oestrogens. Either too much, too soon, the wrong kind, in the wrong combination, or the wrong place.

But none of the established risk factors directly causes the disease. There is considerable evidence to support the inclusion of the missing risk factors alongside those on the list which are currently conventionally accepted.

The question is how much evidence is enough?
A woman’s lifetime risk for breast cancer is 1 in 10
Each year breast cancer incidence is rising world wide
Number of deaths per year 130,000
Newly diagnosed cases per year 350,000
Breast cancer is the main cause of death in women aged between 35 and 64
Every 6 minutes a woman dies from breast cancer in the EU
Ever increasing numbers of younger women are getting breast cancer
35% of women living with breast cancer are under 55
12% of breast cancer cases are women under the age of 45
2% of all cases occur in men
Nearly 20% of all cancer deaths are due to breast cancer
Breast cancer rates have increased by more than 50% over the last twenty years

It’s difficult to get a full picture of breast cancer in the EU as the statistics for Europe vary considerably and are often estimated as there is no common protocol for recording breast cancer statistics and mortality. The risk of getting breast cancer in Western Europe is 60% greater than in Eastern Europe and the highest incidence rates are found in the more developed countries of North Western Europe such as Sweden, Denmark, Finland, the UK, the Netherlands, Germany, Belgium, and Hungary compared to that in Romania, Estonia, Lithuania, Poland, Latvia and Slovakia. Mortality has dropped and the survival rates have been improving these last 20 years. The average European 5 years after diagnosis is between 60-80%. But survival rates must not be confused with a ‘cure’. For women with breast cancer, death from cancer remains a risk 5 years and even 20 years after diagnosis. The UK has one of the lowest survival rates for breast cancer in Europe. In proportion to what it spends on breast cancer, it is below some Eastern European countries who spend less than a third of what the UK spends on their health care budget per head of population.

Useful websites
www-dep.iarc.fr
www.epgbc.org

Breasts – the giver and taker of life

Medically, breasts have always been of interest for two polar opposite reasons; they can sustain life through lactation and they can hasten death through breast cancer.

Breast cancer is not a new disease, the ancient Egyptians first recorded the disease as tumours of the breast for which there was no real cure except the barbaric practice of cauteryisation with a hot poker. In the thirteenth century the Italians advised cutting and cauteryising. It was not known then that such surgery could spread the disease.

Mastectomy, an operation which removes all or part of the breast, came into practice in 1880s. Invented by William Halsted, it was called the Halsted Radical Mastectomy and removed the entire breast, lymph nodes and tendons. This prevailed as the standard treatment for breast cancer for nearly 60 years. It wasn’t until the 1970s that this radical surgery was challenged by both patients and doctors. Lumpectomies or removal of just the tumour and some surrounding tissue including some lymph nodes, followed by radiation, became popular.

There are four major treatments for breast cancer: hormone, surgery, chemotherapy and radiation or as Dr. Susan Love’s infamous quote puts it ‘Slash, Poison and Burn’ Current treatment for breast cancer is far from perfect. Despite having come a long way there is still a large part of the journey to travel, which is why more focus has to be put on prevention.
The oestrogen factor

Our breasts are stimulated to growth by the female hormone oestrogen when we reach puberty. They have a two fold purpose in life, to give sexual pleasure and as the producer of milk for nursing.

Oestrogen is also crucial to breast cancer.

It stimulates breast cell division, which can increase the risk of breast cancer by allowing the DNA to be damaged. Cells that divide are at a higher risk of acquiring mutations than cells that don’t divide. Breast cancer is mutated and damaged cells growing out of control, fuelled by oestrogen. The more the breast is exposed to oestrogen the more likely a woman is to develop breast cancer. 16

A woman’s breasts are constantly changing throughout her life, through puberty, menstruation, pregnancy, and menopause. Because breasts are mainly composed of fat tissue they can also fluctuate in size if a woman is dieting, breastfeeding, or if she gains or loses weight.

As most breast development occurs between puberty and a woman’s first pregnancy, 17 young women’s breasts in particular may be more susceptible to mutations because they are not fully mature and are not as efficient at repairing any genetic damage compared to mature breast cancer cells. 18

If a young woman enters puberty early this prolongs the period that her breasts are exposed to oestrogen because she has more menstrual cycles during her lifetime. Forty years ago young women reached puberty between the ages of 13 and 14, today puberty can begin as young as 8 years old. As the age of onset of first menstrual period (menarche) decreases the overall risk of breast cancer increases. For every year the onset of menstruation is delayed, the risk of breast cancer decreases by 5%. 18 Before age 12, onset of menarche increases breast cancer risk by 50% compared to menarche at 16. 19

This early onset has been linked to environmental and endocrine-disrupting chemicals and substances such as Bisphenol A, Phthalates and Lead. 18 At the other end of a woman’s reproductive life, a late menopause prolongs her exposure to oestrogen. For every year that menopause is delayed the risk of breast cancer increases by 3%. 19 Lack of children means the woman forgoes the protection of a period of time where her breasts are not exposed to oestrogen and when she might breast feed. Pregnancy and breastfeeding offer protection in the form of less exposure to oestrogen and this decreases the risk. 19

Chemicals in our environment can mimic our own natural oestrogen and are called oestrogen mimicking chemicals or endocrine disrupting chemicals (EDCs). More than 700 chemicals have been found to be weakly oestrogenic. These chemicals can be found widely in our environment and in products we use on a daily basis such as cosmetics, cleaning products, packaging, plastics and also in the food we eat in the form of pesticide residues.

EDCs in the body can block the normal function of oestrogen, either adding to the levels of oestrogen or interfering with its breakdown. Hormones act like a lock and key system. EDCs can attach and block the lock from natural oestrogen hence increasing the levels in the body. They can fit into the lock and give us confusing signals to the body, fit into locks where oestrogen was never intended to fit, or interfere with the body’s natural processes of elimination or damage repair.

Many of these chemicals and substances are fat soluble and up to 100 have been found in human fat tissue and breast milk. Women have a higher body fat content to men and this means a larger storage area for toxic chemicals 19. We also detoxify some substances more slowly than men.

As the breast consists of a large percentage of fat cells then it is particularly vulnerable to toxic chemicals. Even pre-birth exposures to minute traces of toxic chemicals can influence a woman’s chances of developing breast cancer later in her life.

We currently have little knowledge about how the combined and cumulative daily exposure to these chemicals and substances can affect us. But from what we do know it is advisable to act now and call for certain chemicals to be banned, eliminated or phased out, especially those that build up in body fat and breast milk.

Useful websites: www.ourstolenfuture.org www.healthandenvironment.org

Breastfeeding is vital for a child’s survival and well-being

Breastfeeding is vital for a child’s survival and well-being and beneficial for the mother’s health. It provides complete nourishment for the baby and is free, unprocessed, and bonds mother and child. 20 A breast-fed baby suffers fewer allergies, respiratory problems, and middle ear infections and breastfeeding reduces infant mortality and immune system disorders. 21

The human breast is a modified sweat gland which produces breast milk in females. Mammary glands are distributed throughout the breast. These manufacture the milk which is then channeled through lactiferous ducts towards the nipple. The ductal network looks like the roots of a tree culminating at the nipple. The remainder of the breast is composed of connective tissue and adipose (fat) tissue. The number of glands to fat tissue doubles when a woman is lactating. Breastfeeding benefits the mother by reducing the risk of developing uterine, endometrial and ovarian cancer and osteoporosis in later life. It acts as a contraceptive and helps mothers lose weight after childbirth. Breastfeeding for two or more years can reduce the risk of developing breast cancer by 24%. 22

However breast milk is currently one of the most contaminated substances on the planet and the human baby is right at the top of the food chain as fat soluble chemicals biomagnify (progressive build up in concentration) as they climb the food chain. Because certain toxic chemicals are fat soluble they can, unwittingly, be passed from mother to child. At least 60% of the fat in breast milk globules is drawn from fat reserves (which build up over her lifetime) throughout the mother’s body – from hips, buttocks, thighs, and buttocks. Only 30% of the fat comes from the woman’s daily diet and 10% is manufactured on the spot in the mammary glands. 22

Exposure to toxic chemicals before birth is thought to be of greater consequence to a child’s health than exposure after birth through breast milk. WECS stresses that breast milk is still the best food for an infant but it could be better.
We all carry a burden of synthetic chemicals in our bodies

Exposure without consent – linking breast cancer and the environment

It must be said that not all chemicals are toxic to humans, their environment or wildlife. Many chemicals are intrinsic to our life on this planet. Indeed we are made up of chemicals, and could not function with out them. So too is everything we touch, see and the very air we breathe. But, there is considerable evidence which links breast cancer to our polluted environment and chemicals used in everyday products and workplaces. Many of these chemicals can be found in products widely available on our shop shelves or in the environment as a direct result of their manufacturing, use or disposal.

They include industrial chemicals, pesticides, dyes, chlorinated solvents, drinking water disinfectant by-products, phthalates, parabens, styrene, metals and phytosterogens. 28

These chemical names may mean little to the consumer but we are each intimately associated with them as we unknowingly carry them in our bodies.

Up to 280 synthetic chemicals have been detected in umbilical cord blood 29 and as many as 300 in human fat tissue. In laboratory tests 250 chemicals were identified which mimic or interfere with oestrogen. 30

Taking one group of products such as cosmetics. They can contain ingredients which have been linked to breast cancer, asthma and allergies, and reproductive disorders. 31 The skin is the largest organ in the human body and through it we can absorb ingredients in cosmetics. Many of the ingredients have not been tested for adverse health effects and there is serious concern about the cumulative effect and combined low dose, long term exposure to these ingredients. (see table for ingredients of concern).

Women may use up to 26 different products as part of their morning beauty routine. There are over 5000 different ingredients used in cosmetics and 5 billion cosmetics products are sold every year to 380 million consumers in the EU. That’s a lot of potential exposure. 32

The cosmetic industries’ reassurance of safety does little to satisfy us. As consumers we are unaware when ingredients are removed from cosmetics due to evidence of their adverse effects on health. One example of this is phthalates.

Two of the phthalate family (DEHP and DBP) were banned in 2003 and included on the list of over 1000 other substances in EU that are banned from use in cosmetics because they are carcinogens, mutagens or reproductive toxicants.

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Exposure without consent – linking breast cancer and the environment

Women are particularly vulnerable to certain toxic exposures at certain times of life - during puberty, pregnancy, menopause and old age.
### Chemical Name

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Action</th>
<th>Use</th>
<th>Found in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phthalates - DEHP (banned)</td>
<td>EDC &amp; C</td>
<td>Soften plastics, in cosmetics to denature alcohol, and to carry fragrances in cleaning products and cosmetics.</td>
<td>Inks, adhesives, paints, flooring, toys, many plastic consumer products, cosmetics, including perfumes, body sprays, aftershaves.</td>
</tr>
<tr>
<td>DBP (banned)</td>
<td>EDC &amp; C</td>
<td>Coating and insulating industrial transformers and capacitors. As additives in PVC wire.</td>
<td>Lubricating fluids and various inks, adhesives and paints.</td>
</tr>
<tr>
<td>Polychlorinated Biphenyls (PCB’s) Banned.</td>
<td>EDC &amp; C</td>
<td>Prevent pests in fish farming, and food crops, gardening and as a rodent repellent.</td>
<td>Many already banned. Residues found in food, chocolate, drinking water, and some consumer products such as carpets. Antifouling paint on hulls of boats. Some persistent in the environment.</td>
</tr>
</tbody>
</table>

### Pesticides & Herbicides

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Action</th>
<th>Use</th>
<th>Found in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine, Dichlorvos, Dieldrin, Chlordane, Cyanazine, Captan, Flucy thrinate, Ethylene dioxide, Ethylene dibromide, DDT, Lindane, Tributyl tin, Ethylene oxide</td>
<td>EDC &amp; C</td>
<td>The manufacture of polycarbonate plastic and epoxy resin.</td>
<td>Babies bottles, products white dental fillings, nail polish, food packaging, linings of tin cans, contact lenses, water filters, false teeth, adhesives, water pipe linings and flooring.</td>
</tr>
<tr>
<td>Bisphenol A</td>
<td>EDC &amp; C</td>
<td>The manufacture of polycarbonate plastic and epoxy resin.</td>
<td>Thermometers, dentistry, agricultural chemicals, industrial pollution and batteries.</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>C</td>
<td>Solvent, paint stripper and degreaser as a fumigant in food crops.</td>
<td>Furniture strippers and adhesives.</td>
</tr>
<tr>
<td>Nonylphenol &amp; Alkylphenols (banned)</td>
<td>EDC</td>
<td>Additive to prevent plastics from cracking, as a surfactant, and in manufacturing of wood and metal.</td>
<td>Cleaning and cosmetic products, detergents and pesticides.</td>
</tr>
</tbody>
</table>

### Heavy Metals

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Action</th>
<th>Use</th>
<th>Found in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>EDC</td>
<td>Manufacture of industrial chemicals and electrical and electronic applications.</td>
<td>Thermometers, dentistry, agricultural chemicals, industrial pollution and batteries.</td>
</tr>
<tr>
<td>Cadmium</td>
<td>EDC</td>
<td>Electroplating, semiconductors, dentistry, photography, and as a pesticide</td>
<td>Found in storage batteries, paints, pigments, glass and glaze.</td>
</tr>
<tr>
<td>Benzene</td>
<td>C</td>
<td>Solvent. Used in manufacturing of synthetic rubber and dyes, explosives and pesticides</td>
<td>Petrol, and crude oil. Industrial pollutant.</td>
</tr>
<tr>
<td>Dioxins and Furans</td>
<td>C</td>
<td>No application.</td>
<td>Produced during incineration and chlorine bleaching of paper. Industrial pollutants.</td>
</tr>
</tbody>
</table>

**Useful websites**

- www.ewg.org
- www.wen.org.uk
- www.safe.cosmetics.org
- envirocancer.cornell.edu
- eww.org
Breast cancer is a very emotive disease. This emotion is played out to great effect by the media. Each October media portrays breast cancer in the form of personal narratives used to both inspire and trivialise the disease. While these may comfort some individuals they pose no challenge to the status quo. They do not address the failure of medical science to either prevent or cure the disease or to ask why the incidence rate continues to climb. There is little room for mentioning environmental or occupational links as a cause. In fact, the media seem to actively discourage this in favour of better diets, more exercise and the most recent “magic bullet” (wonder drug). Each media story relating to breast cancer is generally accompanied by a picture of a woman undergoing a mammogram therefore reinforcing the medical side of the story to the exclusion of all else. The cancer establishment with its lifestyle focused risk factors, place all responsibility for the disease at the feet of the individual. Women are viewed as bringing the disease upon themselves. We are told we have our children too late, we drink and smoke too much, exercise too little, don’t breast feed enough, have our periods too early and our menopause too late and take too many pills such as HRT and the pill, as increasingly our natural biological processes are medicalised.

While we try and gain some control over some of the conventionally accepted risk factors by eating well, exercising, and not smoking or drinking, we are continually exposed to the risk factors we are never told about, the missing environmental and occupational ones which could account for some 50-70% of breast cancer cases. So why is prevention off the agenda and the missing factors ignored?

Useful websites:
www.preventcancernow.ca
www.nomorebreastcancer.org.uk

Barriers to prevention
We know there are barriers to putting prevention on the agenda. The document Breast Cancer: an Environmental Disease cites them as:

**Acceptance**
Our society has been conditioned to think of breast cancer as a fact of life and as unpreventable

**Confusion**
Women are taught that early detection and treatment are the answers to breast cancer

**Fear**
The fear linked to all forms of cancer leads to resistance

**Fixation**
Our society is fixated on treatment and control of disease, rather than primary prevention

**Ignorance**
The narrow focus on lifestyle factors as the key to prevention

**Invisibility**
The lack of visibility in many carcinogenic chemicals (no odour or colour) creates an “out of sight, out of mind” mentality

**Procrastination**
Policy makers often call for more research when prevention is concerned

**Vested Interests**
and the status quo
There is no profit in prevention

In order to lobby effectively we need to be aware of the unspoken barriers and strategise about how we might overcome them.
Breast cancer is portrayed as a fight to be fought, won or lost on the battle field of life.

Mammography

Its important to state that WECF would not deter women from getting a mammogram but thinks it is important that women be aware of the risks involved before the procedure, acquainting themselves with alternatives like MRI and BSE.

Mammography is currently one of the few tools available for women over 50 to detect cancer of the breast, however it may not be a suitable technology for screening younger breasts. WECF would like to see funding for safer detection methods EU wide.

Mammography uses X-rays in low doses to detect breast cancer. It is currently the only affordable technology available to screen the breast. It does however deliver a dose of ionising radiation, a known carcinogen, to the breast and surrounding tissue. This dose can accumulate over a woman’s lifetime and the greater the exposure and dose, the greater the risk of developing cancer. Mammography uses X-rays in low doses to detect breast cancer. It is currently the only affordable technology available to screen the breast. It does however deliver a dose of ionising radiation, a known carcinogen, to the breast and surrounding tissue. This dose can accumulate over a woman’s lifetime and the greater the exposure and dose, the greater the risk of developing cancer.

Breast tissue changes rapidly, especially during development and at other key reproductive moments in a woman’s life, and is very, very sensitive to radiation. Mammography of younger women’s breasts does not give good results as the breast are too dense. This means of detection should be avoided in younger women.

It is worth pointing out that mammography is a tool for detection and not prevention. It can also miss a quarter of all tumours or give false negatives and positives, failing to find the cancer or finding cells that may never become cancerous during a woman’s lifetime. Radiation is a known cancer causing agent. Evidence from Hiroshima and Nagasaki 35 years after the atomic bomb shows 4 times the increased rates of breast cancer in those under 4 years old at the time. There were twice as many cases of breast cancer in those aged 10-14, compared with women aged 20-30.

The risk to health is something that women should make themselves aware of before opting for a mammogram.

Women may feel they must ‘soldier on’, ‘be brave’ and courageous. Whereas with other diseases people are allowed to be sick, they don’t have to fight wars, to win or lose. Breast cancer is portrayed as a fight to be fought, won or lost on the battle field of life.

Although a ‘fighting spirit’ is said to be advantageous to survival, it should not be something that is imposed on women. Especially as the body count and the lack of progression on prevention of breast cancer is something that both the media and the cancer establishment shy away from portraying.

Research shows a 2-3 times increased risk for women who had their breasts exposed to radiation for treatment of a prior cancer, or at a young age.

And care should be taken with women carrying the hereditary gene BRCA1 or BRCA2 or the A-T (ataxia-telangiectasia) gene.

Magnetic Resonance Imaging (MRI) is better at detecting early breast cancer but it also very expensive. It uses magnetic fields as opposed to radiation and is therefore safer although it still may not be the answer to the problem of safe and effective detection. It does not find so many false positives and in recent studies it detected 98% of potential cancers compared with 52% found by mammography.

A less costly and safer option might be breast self examination (BSE). Given that most women or their partners find their own lumps, BSE can be taught by a nurse to all women in order for them to check their breasts regularly for changes. The costly technology for detection may not be an option for some EU and EECCA countries. Maybe it’s time to weigh the costs of lives with the cost of equipment and err on the side of saving lives through safer detection methods. Mammography screening can reduce mortality by 35% percent in women aged between 50-69 years. But for every 500 women screened, one life will be saved and 499 women will be exposed to a dose of radiation which could increase their risk.

None of the above methods can always detect cancer in the breast.

Useful websites:

www.preventcancer.com
www.bcaction.org
www.breastcancer.org
www.breastcancerurope.com
Exposures in the workplace

Traditionally women’s workplaces are regarded as safer than men’s but with more and more women entering previously male dominated workplaces this is no longer true. There is a cyclical nature to the fact that women’s work related injuries and diseases are seriously underestimated especially in relation to occupational cancer. 

Assumptions are that women’s work is viewed as safe and therefore there is little gender specific research. Women are thus excluded from studies because the risks are not visible so there is little incentive to include them in further studies. Illness can be attributed to a woman’s hormones or her imagination since diseases like cancer sometimes quadruple jeopardy. For example, a woman may be exposed to pesticides at work, at home, in the garden and in the wider environment which may be why women tend to have more occupational diseases than men. Meanwhile, men tend to work in more risky workplaces which lead to more accidents. 

Risk assessments and legislation for occupational exposure rarely consider differences between the genders and safety standards are set from research carried out on men which is assumed will be applicable to women. Health and safety for women is largely aimed at reproductive health and not the woman herself. The changing nature of employment means longer hours and shift work which can also increase the risk of breast cancer by 48%. Women tend to work more in part time jobs, and in family businesses which may mean less health and safety regulation. 

Certain occupations carry with them an increased rate of breast cancer such as nurses, health care assistants, solvent workers, health technicians, pharmacists, female flight attendants, teachers, women working in agriculture, semiconductor workers, pesticides applicators, hairdressers, beauticians, librarians, painters, sculptors, and precision workers in textiles. 

While exposure to substances may explain some of the elevated risk not all of the risk factors have, as yet, been identified. It is estimated that between 1,500 – 5,000 breast cancers cases each year in the UK are linked to workplace factors. Unfortunately for workers, most causes of cancer have been identified in studies of workers. They can be likened to canaries in a mine. Of the 100,000 chemicals used in workplaces worldwide, barely 1 in 100 has been thoroughly tested for health risks. It is encouraging that as more women enter the workforce, they also have the opportunity to join their trade union and become actively involved in determining health and safety legislation which protects a woman at all stages of her working life. 

But there needs to be better enforcement of the legislation which does exist and a rethink about how to make research more women-focused to prevent occupational cancer.

Useful websites:
- www.hazards.org
- www.ilo.org
- www.etuc.org
- www.chemicalreaction.org
- www.devradavis.org
- www.wecf.eu
- www.wecf.org
- www.artac.info
- www.wcsp.org
- www.wecf.org
- www.chemicalreaction.org
- www.devradavis.org
- www.wcsp.org

REACH for a toxic free future?

As citizens and consumers we need to ask ourselves if we assume all the products on our store shelves are safe? And if so why do we think that?

New EU chemicals legislation, Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH) entered into force on the 1st June 2007. The new legislation aims to “improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.”

More than 100,000 chemicals are marketed in the EU alone every year and under REACH, 30,000 of them will be evaluated for environmental health and safety over 11 years.

Contrary to industry’s lobby about bankruptcy, the cost of REACH to the chemical industry will be 2.8 – 5.2 billion Euros over a period of 11 years. This represents about 0.05 – 0.09 % of the annual turnover of the industry. In contrast, 50 billion Euro could be saved through REACH over the next 30 years on public health costs alone.

EU citizens, NGO’s, and trade unions need to work together to ensure this legislation does protect human health at home, in the workplace, and in the wider environment.

Useful websites:
- www.chemicalreaction.org
- www.wecf.eu
- www.devradavis.org
- www.artac.info

Do we assume that the products on our store shelves are safe?

Breast cancer should not be inevitable for women. We all have a right to a life free of breast cancer and to a healthy environment. We have to work to inspire and support each other to take action. If breast cancer incidence levels can go up, then they can also come down. We need to join organisations and individuals already working for a toxic free future.
What you can do?

- Eat a healthy diet, organic or locally grown where possible, consider, in order of preference:
  - Organic, locally grown and seasonal; it has the least environmental impact and is most beneficial to health as no pesticides used.
  - Locally grown if available; it reduces CO2 and climate change.
  - Fair trade and organic gives a fair price to producers and there is no pesticide exposure to the producer or the consumer; but there maybe food miles involved.
  - Organic food; no pesticide exposure to producer or consumer but maybe lots of food miles involved.
  - Fair trade gives a fair price and better working conditions to the producer; but may not be organic or local.
- It is important to remember that as a consumer and a citizen you have the power to bring about change. Vote with your purse.
- Avoid air fresheners and synthetic fragrances, open your windows for fresh air.
- Clean your home with natural products. www.womenandenvironment.org
- Choose natural fibers for clothing such as cotton, wool or hemp, organic if possible.
- Avoid clothes that need to be dry cleaned.
- Eat lower on the food chain to avoid bio-accumulative toxins which build up in animal fat.
- Become your own workplace detective. Down load the Zero Cancer Guide. www.imfmetal.org/cancer
- Stay fit and exercise regularly.
- Green up your gardening. Avoid pesticides, fungicides and insects killers in your home and garden.
- Reduce your consumption and waste by avoiding over packaging, and being a thoughtful consumer.
- Think before you pink! Before you buy products to support breast cancer ask where does the money go and does the product you are buying contain any ingredients which are linked to breast cancer? Check www.thinkbeforeyoupink.org
- For more information on REACH and what you can do download the booklet navigating REACH from www.chemicalreaction.org
- Bring your own cup - avoid styrene.
- Food for cooking, storing and microwaving food, choose more natural materials such as glass and stainless steel – avoid plastics.
- Freshen you home and yourself with essential oils. Avoid air fresheners and synthetic fragrances, open your windows for fresh air.
- Eat a healthy diet, organic or locally grown where possible, consider, in order of preference:
  - Organic, locally grown and seasonal; it has the least environmental impact and is most beneficial to health as no pesticides used.
  - Locally grown if available; it reduces CO2 and climate change.
  - Fair trade and organic gives a fair price to producers and there is no pesticide exposure to the producer or the consumer; but there maybe food miles involved.
  - Organic food; no pesticide exposure to producer or consumer but maybe lots of food miles involved.
  - Fair trade gives a fair price and better working conditions to the producer; but may not be organic or local.
- It is important to remember that as a consumer and a citizen you have the power to bring about change. Vote with your purse.
- Avoid PVC and polycarbonate plastics – they will be marked with a triangle and the numbers 3 or 6.
- Choose greener cosmetics, natural materials such as glass and stainless steel – avoid plastics.
- Avoid pesticides, fungicides and insects killers in your home and garden.
- Reduce your consumption and waste by avoiding over packaging, and being a thoughtful consumer.
- Think before you pink! Before you buy products to support breast cancer ask where does the money go and does the product you are buying contain any ingredients which are linked to breast cancer? Check www.thinkbeforeyoupink.org
- For more information on REACH and what you can do download the booklet navigating REACH from www.chemicalreaction.org
- Bring your own cup - avoid styrene.
- Food for cooking, storing and microwaving food, choose more natural materials such as glass and stainless steel – avoid plastics.
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- It is important to remember that as a consumer and a citizen you have the power to bring about change. Vote with your purse.
- Avoid air fresheners and synthetic fragrances, open your windows for fresh air.
- Clean your home with natural products. www.womenandenvironment.org
- Choose natural fibers for clothing such as cotton, wool or hemp, organic if possible.
- Avoid clothes that need to be dry cleaned.
- Eat lower on the food chain to avoid bio-accumulative toxins which build up in animal fat.
- Become your own workplace detective. Down load the Zero Cancer Guide. www.imfmetal.org/cancer
- Stay fit and exercise regularly.
- Green up your gardening. Avoid pesticides, fungicides and insects killers in your home and garden.
- Reduce your consumption and waste by avoiding over packaging, and being a thoughtful consumer.
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