

## WHAT YOU CAN DO TO REDUCE YOUR EXPOSURE TO CHEMICALS

**Eat organically grown food whenever possible.** Many pesticides and herbicides are carcinogenic, and many have a chemical structure that is very similar to estrogens. These can stimulate the growth of breast tumors. Organic food is grown without chemicals or hormones and has been found to be much higher in nutrients than foods grown in commercially fertilized, nutrient-depleted soil. Especially, avoid non-organic eggs, dairy products and meats, as hormones and antibiotics are fed to the animals.

The following fruits and vegetables have been found to have the highest levels of pesticides (when grown non-organically.) Avoid them unless they are organic: **strawberries, bell peppers, spinach, cherries, peaches, cantaloupe, celery, apples, apricots, green beans, Chilean grapes, cucumbers.**

### **Foods that tend to be low in pesticides**

EWG analysis of the latest government test results shows that the following fruits and vegetables have the least pesticide contamination among conventionally-grown foods.

<b>Fruits</b>	<b>Vegetables</b>
1) Pineapples	1) Avocado
2) Plantains	2) Cauliflower
3) Mangoes	3) Brussels Sprouts
4) Bananas	4) Asparagus
5) Watermelon	5) Radishes
6) Plums	6) Broccoli
7) Kiwi Fruit	7) Onions
8) Blueberries	8) Okra
9) Papaya	9) Cabbage
10) Grapefruit	10) Eggplant

**Do not use pesticides or herbicides** in your home or on your lawn or garden. Lawn and garden chemicals have been found to increase cancer rates in pets and people.

**Avoid Plastics if possible: Their production releases chlorinated toxins into the environment.**

**Reduce or eliminate the use of plastic containers for food storage.** Certain plasticizers, which add flexibility to plastic food wraps, are suspected endocrine disrupters. Plasticizers can migrate from wraps into foods, especially fatty ones like hamburgers and cheese, especially when foods are re-heated or microwaved in plastic. Reynolds Wrap and Saran Wrap both contain dangerous plasticizers. Wraps made with polyethylene are safer, as are Tupperware and Rubbermaid bowls.

**Avoid the use of plastic in Microwave Ovens** – A Dartmouth University study found that plastic wrap with olive oil heated in a microwave produced a concentration of xenoestrogens 500,000 times the minimum amount of estrogen needed to produce breast cancer cell proliferation in a test tube.

**Avoid Organochlorines, which are not only often overtly toxic, they also possess estrogenic activity; in other words, they mimic estrogen.**

**Purchase non-bleached coffee filters, paper, napkins, toilet tissue, tampons, etc.** The EPA has determined that using bleached coffee filters alone can result in a lifetime exposure to dioxin that exceeds acceptable risks. Ask for office paper products whitened without chlorine.

**Use tampons and sanitary napkins made of organic cotton without chlorine.** (The FDA detected dioxins and dozens of other substances in conventional tampons. Look for ones that contain no chlorine, fragrance, wax, surfactants, rayon, etc.)

**Do not use chlorine bleach for household cleaning or laundry.** Hydrogen peroxide is a safe alternative; it breaks down to water and oxygen. Bleaches made from Hydrogen Peroxide are sold in Health Food stores.

**Use non-toxic household products-** Lysol Disinfectant Spray may contain ortho-phenylphenol. This germ killer is carcinogenic, according to both the Environmental Protection Agency (EPA) and IARC. You can find non-toxic products in your health food store.

**Avoid fluoridated water and all chemically treated tap water.** Drink filtered or bottled water, not "city water" that contains chlorine or get a whole house filter. Bathe or shower in "clean" water. According to the handbook, *Clinical Toxicology of Commercial Products*, fluoride is more poisonous than lead and just slightly less poisonous than arsenic

**Use only natural underarm deodorants** that are free of dangerous chemicals. Avoid anti-perspirants altogether. Underarm perspiration is an important way that the body clears toxins out of the breast area. Anti-perspirants block perspiration and also contain toxic aluminum.

**Eat foods high in anti-oxidants** (vitamins A, C, E, selenium, beta carotene) to protect the body from toxic exposures. (deeply colored vegetables and fruits like green leafy vegetables, kale, carrots, yams, sweet potatoes, broccoli, cauliflower, brussel sprouts, collards, cabbage, citrus, berries, nuts and seeds.)

**Avoid excessive amounts of sugar, fat, alcohol, caffeine,** all of which decrease immune system function and may contribute to cancer. Obesity, and high levels of insulin in the blood also increase your risk for cancer.

**Sleep in total darkness to increase levels of melatonin.** The pineal gland may have a very important interaction through melatonin on the growth of breast cancer through a variety of levels, including influences on the brain, influencing hormones produced by the brain, as well as a direct effect of melatonin itself on breast cancer, which we believe is its primary mode of action. There's a relationship between estrogen, the estrogen receptor, and the ability of melatonin to inhibit cancer growth.

**Avoid long-term use of synthetic or animal derived hormone treatments** (oral contraceptives and hormone replacement therapy); investigate natural and plant-derived alternatives for HRT.

**Avoid tight clothing that restricts lymphatic system drainage-**especially bras. Allow lymph to flow freely.

**Avoid Microwave Ovens** – they have a negative effect on food nutrient levels.

## **AVOID PRESCRIPTION DRUGS THAT INCREASE CANCER RISK**

### **Cholesterol Drugs**

New research indicates that besides lowering levels of harmful cholesterol, the drugs may also promote the growth of new blood vessels, which may not necessarily be such a great thing. Although this effect may help to prevent heart attacks and other forms of heart disease, it may have the potential to promote cancer as well, as tumors grow by producing new blood vessels.

### **Calcium Channel Blockers**

A higher risk of breast cancer was observed among women taking a common class of blood-pressure lowering drugs called calcium channel blockers, or CCBs. Common types of CCBs include Verapamil, Diltiazem, Nifedipine, and nonnifedipine dihydropyridines

### **Cimetidine (Tagamet)**

The Physician's Desk Reference (PDR) lists gynecomastia (breast enlargement in men) as a side effect for Tagamet.

### **Synthetic Estrogens** (Prempro, Premarin, all ERT, HRT and Birth Control Pills)

Many of the synthetic estrogens are chemically modified to be different from naturally occurring estrogen to increase drug company profits from a patented drug. Thus, they may have grave side effects. Also there is evidence that they may be stored in the fat for months. HRT has been shown to increase the rate of breast cancer significantly.

**Anti-depressants-** DEPRESSING NEWS. Certain kinds of antidepressants can double the risk of developing breast cancer, according to a landmark Canadian study.

A list of antidepressant drugs that are associated with an increased risk of breast cancer was derived from two separate studies. Drugs are by chemical name, followed by examples of brand names.

Increased risk	No increased risk
Tricyclic antidepressants Amoxapine - Asendin Clomipramine - Anafranil Desipramine - Norpramin Trimipramine - Surmontil, Rhotrimine	Tricyclic antidepressants Amitriptyline - Elavil Maprotiline - Ludiomil Nortriptyline - Aventyl Protriptyline - Triptil
Selective serotonin reuptake inhibitors (SSRIs) Paroxetine - Paxil	Selective serotonin reuptake inhibitors (SSRIs) Sertraline - Zoloft Fluoxetine - Prozac

## AVOID CHEMICALS THAT INCREASE CANCER RISK

### Cosmetics- Xenoestrogens in Cosmetics

Most recently, medical researchers from Denmark, the United Kingdom and elsewhere have reported that some of the most common detergents, wetting agents and preservatives used in cosmetics and household cleaning products act much like the female hormone estrogen once in the human body; these chemicals, known as xenoestrogens, are strongly suspected of disrupting the normal hormonal processes of both sexes. An FDA report done in 1988 found 30 percent of cosmetic products contained these carcinogens.

**Brands without these suspect chemicals include Aubrey Organics, Dr. Hauschka, Logona and Weleda, as well as many health food store brands**

**Hair Dyes-**Synthetic hair dyes increase risk for certain types of cancers. One-fifth of cases of non-Hodgkin's lymphoma among women are linked to hair-dye use. Indeed, more than a dozen studies link hair dyes with cancer, yet the FDA requires no warning of this hazard on product labels. Certain natural dyes may be safer because they use vegetable colors.

GRECIAN FORMULA for men contains lead acetate. Lead damages the nervous, circulatory, and reproductive systems and is absorbed through the skin.

**Lipstick containing lead** - Many of them do. Use lipsticks that do not contain lead.

**Fluoride-** Avoid fluoridated toothpaste (toothpaste without fluoride and containing natural ingredients may be purchased at most health food stores).

**Anti-perspirant Deodorants**, which contain aluminum, as aluminum is toxic, and they inhibit detoxification of the breasts and chest area.

**Dry-Cleaning-** Most dry-cleaners rely on a chemical solvent called perchloroethylene, or "perc". This highly toxic carcinogen has been shown to have harmful effects on the nervous system and all major organs. Many fabrics that say, "dry clean only" don't require it. Manufacturers often put it on the label to prevent liability because they must accept the return if a garment shrinks or loses its shape. Dry cleaning has long been the only guaranteed method of cleaning that prevents this; so clothing manufacturers get "label happy."

**Pet Products** - ZODIAC CAT & DOG FLEA COLLAR contains propoxur. This chemical is a carcinogen, according to a 1989 report done by researchers at Cornell University, University of California, and Michigan and Oregon State Universities. It may also cause learning disabilities, according to Basic Guide to Pesticides. All synthetic flea and tick products contain chemicals that are toxic to animals, and have been linked to increased cancer rates in pets.

**Bisphenol A:** Bisphenol-A was originally designed for use as a synthetic estrogen replacement. Bisphenol-A is used in drinking water bottles, plastics used in baby bottles, plastics used to pack food,

and some dental composites. Contamination was also found in the majority of canned food as high as 27 times the minimum amount of estrogen needed to stimulate breast cancer cells to grow in the test tube.

**Phthalates:** Phthalates are a family of industrial chemicals that are used as a plastic softeners or solvents in many different products. Phthalates are virtually everywhere. Deodorants, car seats, hair spray, IV bags, perfume, vinyl flooring, wallpaper, and siding all contain phthalates. Some of the leading beauty manufactures use phthalates in their products - such as Pantene Pro V "Healthy Hold" and Aqua Net hair sprays, Arrid and Degree deodorants, many fragrances including Poison by Christian Dior and Coty's Healing Garden contain phthalates, as well as Cover Girl, Sally Hansen and Maybelline (L^Oreal) nail polishes. However, for every ubiquitous use, there are readily available alternatives that are already in use. The chart outlines products that were tested for phthalates. Because of lax FDA labeling rules, we cannot know if there 5, 50 or 500 more beauty products that contain unlabeled quantities of phthalates. So just because you don't see your favorite product on the list doesn't necessarily mean it's phthalate free. We encourage you to check with the manufacturer.

<b>HAIRSPRAY-Contains Phthalates</b>	<b>FRAGRANCES- Contains Phthalates</b>
Aqua Net Professional Hair Spray	Calgon Hawaiian Ginger Body Mist
Herbal Essences Non Aerosol Hairspray	Calgon Turquoise Seas Body Lotion
Jheri Redding Finishers Flexible Hold Hairspray	Charlie Cologne Spray
Pantene Pro V Strong Hold Spray	Escape by Calvin Klein
Pantene Pro V Stronghold Healthy Hold Spray	Eternity by Calvin Klein
Rave 4x Mega	Fire & Ice Cologne Spray
Redken Cat Finishing Spritz	Freedom
Salon Selectives Hold Tight Style Freeze	Jovan White Musk
Maximum Hold Finishing Spray	Lancome Paris Tresor
Sebastian Collection Shaper Plus	Liz Claiborne Eau De Toilette Spray
Suave Maximum Hold Hairspray Unscented, non-aerosol	Oscar
Suave Naturals Extra Flexible Hold Non Aerosol Hairspray Freesia	Parfums de Coeur White Tahitian Ginger Fantasy
TRESemme European Freeze-Hold Hair Spray	Poison by Christian Dior
VO5 Crystal Clear 14 Hour Hold	Red Door
Vidal Sassoon Microfine Mist Hair Spray, Aerosol	The Healing Garden Pure Joy Body Treatment
	White Diamonds Elizabeth Taylor
	Wind Song Extraordinary Cologne by Prince Matchabelli
<b>HAIR GEL-Contains Phthalates</b>	<b>DEODORANTS-Contains Phthalates</b>
Clairol Herbal Essences Natural Volume Body Boosting Gel	Arrid Extra Extra Dry Maximum Strength Solid
Dep Level 4 Shine Gel	Arrid Extra Extra Dry Ultra Clear Ultra Clean Spray
LA Looks Styling Gel: Extra Super Hold	Arrid Extra Extra Dry Ultra Clear Ultra Fresh Spray
Suave Naturals Ocean Breeze Extra Control Spray Gel	Ban Delicate Powder Roll On
TRESemme European Slick Melting Gel	Degree Original Solid Anti-Perspirant & Deodorant
Pantene Pro V Spray Gel Volumizing Root Lift	Dove Solid Anti-Perspirant Deodorant
	Secret Sheer Dry Regular
	Secret: Powder Fresh Aerosol
	Sure Clear Dry Antiperspirant & Deodorant
<b>HAIR MOUSSE-Contains Phthalates</b>	<b>NAIL POLISH-Contains Phthalates</b>
Aussie Megahold Mousse	Avon beComing Radiant Long Last Nail Gloss
Clairol Herbal Essences Styling Mousse Maximum Hold	Cover Girl NailSlicks
Helene Curtis Salon Selectives Rise Up Volumizing Mousse	Maybelline Express Finish Fast-Dry Nail Enamel
Pantene Pro V Mousse Body Builder	Maybelline Ultimate Wear Nail Enamel
	Naturistics Super Shine Nail Gloss
	Oil of Olay Nail Laquer
	OPI Nail Laquer
	Orly Salon Nails French Manicure
	Orly Salon Nails Nail Color
	Sally Hansen Chrome Nail Makeup
	Sally Hansen Hard as Nails Nail Polish
	Sally Hansen Hard as Nails With Nylon Nail Polish
	Sally Hansen Teflon Tuff Nail Color
	Tropez Nail Enamel
	Wet N Wild Crystallic Calcium Enriched Nail Color
	Wet N Wild Nail Color

**Phthalate free**

<b>HAIRSPRAY-Phthalate Free</b>	<b>DEODORANTS-Phthalate Free</b>
Aussie Mega Styling Spray Helene Curtis Finesse Touchables Silk Protein Enriched Helene Curtis Thermasilk Heat Activated Firm Hair Suave Naturals Aloe Vera Extra Hold Hairspray	Certain Dri Anti-Perspirant Roll-On Dove Powder Anti-Perspirant Deodorant Lady Speed Stick Soft Solid Anti-Perspirant Secret Anti-Perspirant & Deodorant Platinum Protection Ambition Scent Soft & Dri Anti-Perspirant Deodorant Clear Gel
<b>FRAGRANCES-Phthalate Free</b>	<b>HAIR GEL Phthalate Free</b>
All of the fragrances we tested contained phthalate	Physique Extra Control Structuring Gel
<b>HAIR MOUSSE-Phthalate Free</b>	<b>NAIL POLISH-Phthalate Free</b>
Finesse Touchables Silk Protein Enriched Mousse Helene Curtis Thermasilk Heat Activated Mousse for Fine/Thin Hair L^Oreal Paris Studio Line: Springing Curls Mousse	Kiss Colors Nail Polish L^Oreal Jet Set Nail Enamel L^Oreal Jet-Set Quick Dry Nail Enamel Maybelline Shades of Your Nail Color Naturistics 90 Second Dry! Super Fast Nail Color Revlon Nail Enamel Revlon Super Top Speed Urban Decay

**Chemicals that Mimic Estrogens (Xenoestrogens)**

In last decade, new research has come to light that demonstrates that synthetic chemicals that are very different in structure to estrogen may act as an estrogen. The Xenoestrogen in question may either bind to the receptor strongly or weakly. It may also stimulate the receptor strongly or weakly to imitate the effect of estrogen, or it may elicit a response that is an abnormal estrogen response. Thus, these chemicals can cause breast cancer, uterine cancer, fibrocystic breast disease, ovarian cysts, endometriosis, premature sexual development and uterine fibromas Some of these Xenoestrogens like DDE (a metabolite of DDT) may persist in the body fat for decades.

**Pesticides & Herbicides such as DDT, endosulfan, dieldrin, methoxychlor, kepone, toxaphene, chlordane, and other chlorinated hydrocarbons.** DDT is banned in the U.S. however it still can be found in our food supply.( see "What's In Your Green Tea" in the Environment Section) Synergistic effect is known to occur between pesticides yielding greater toxicity and estrogen effect. However, exact combinations and levels are unknown. Farms, lawns and golf courses use pesticides and herbicides that easily enter the body through the skin and lungs. Golf courses use 7 times the amount of pesticides than farmers use.

**Preservatives used in skin lotions, shampoos, and body lotions** such as the parabens that include methyl paraben, ethyl paraben, propyl paraben, butyl paraben. These preservatives are found in the vast majority of skin and body lotions, even in natural progesterone creams. Anything absorbed through the skin is 10 times the concentration of an oral dose.

**PREVENTION IS THE CURE**

This information is intended for educational purposes only, in order to help you make informed health choices. We are providing this information to advise you of the complete scientific overview that is currently available, although we may not necessarily endorse it. Breast Cancer Options