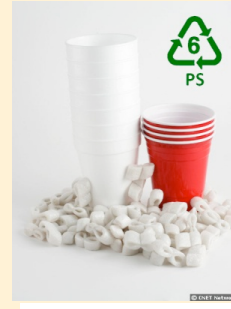


Impactos del Plastico en la Salud



Presented by Nancy
Buermeyer
Breast Cancer Fund



Impactos del Plastico en la Salud

Diseases and Health Conditions Linked to Plastics

- Cancers
 - Breast, Prostate, Bladder, Childhood Leukemia
Liver, Stomach, Brain, Lung, Thyroid, Lymphoma
etc.
- Reproductive Disorders
 - Reduced Fertility, Low Sperm Counts, etc.
 - Early Puberty, Menstrual Disorders
- Immune Suppression
- Diabetes and other metabolic disorders
- Cardiovascular Disease
- Learning Disabilities
- Autism



Styrene - #6 PS Polystyrene

Used in:

Styrofoam food trays, egg cartons, disposable cups and bowls, carry-out containers, opaque plastic cutlery, coffee cup lids



Cancer Causing Chemical:

Possible – World Health Organization's International Agency for Research on Cancer (IARC)

Reasonably Anticipated – U.S. National Toxicology Program (NTP)



#3 PVC – Polyvinyl chloride

Used in:

Cling wrap, plastic squeeze bottles, window-cleaner bottles, toys, shower curtains

Vinyl chloride

Known Carcinogen – IARC and NTP

Dioxins

Created When PVC is Incinerated

Known Carcinogen – IARC and NTP

Persist and bioaccumulate in the environment



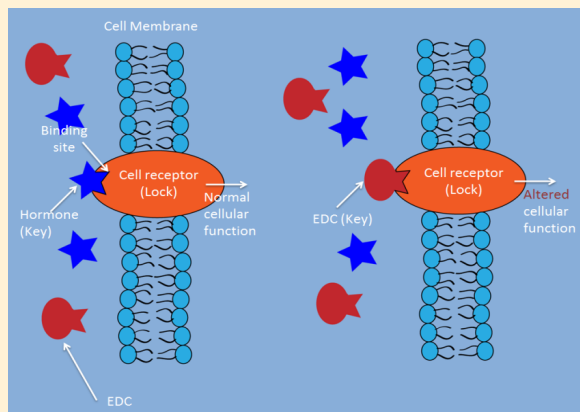
-----**Dioxins also disrupt our hormones**-----



Endocrine Disrupting Compounds (EDC's)

Modes of Action
Mimic Hormones
Block Hormones
Alter Functions

Systems Impacted
Reproductive
Estrogen
Androgens
Adrenal
Thyroid



#7 Polycarbonate (bisphenol A)

Used In:

Sports water bottles, baby bottles, sippy cups, water jugs, food storage containers, lining of food cans

Endocrine Disrupting Compound

Found in: 93% of U.S. adults
Maternal and Cord Blood
Crosses the placenta



Over 200 studies show adverse health effects at low doses

Linked to:

Prostate and breast cancer, obesity, lowered sperm counts
ADHD, Autism and early-onset puberty



Attention Deficit Hyperactivity Disorder

200 studies – lab, cellular, wildlife, human

Animal studies consistent with limited human studies

Plasticizers – Phthalates

Used to Make Plastic Flexible in:

Children's toys, baby care products, food packaging, automobiles, shower curtains, medical IV bags

Endocrine Disrupting Compound

Found in:

Over 75% of U.S. citizens (6 and up)
Highest levels in children

Linked to:

Birth defects in baby boys, hyperactivity in toddler girls, testicular cancer, liver problems, early onset of puberty in girls



Nueva Ciencia = Malas Noticias

Two studies from 2011:

Yang, et al, 2011 found that many BPA-free water and baby bottles also leached estrogenic compounds, raising concerns about non-BPA

plastics.

Lithner, D, et al, examined the hazard characteristics of the building

blocks, additives and byproducts of various plastics:

- 31 out of 55 plastics considered were made of molecules that fell into the 2 highest hazard rankings

- **Carcinogens, mutagens (alter DNA) or reproductive toxins**

Yang CZ, Yaniger SI, Jordan C, Klein DJ, Bittner GD (2011). Most plastic products release estrogenic chemicals: A potential health problem that can be solved. Environmental Health Perspectives, ahead of print. doi:10.1289/ehp.1003220.

Lithner D, Larsson A, Dave G, (2011). Environmental and health hazard ranking and assessment of plastic polymers based on chemical composition. Sci Total Environ ,doi:10.1016/j.scitotenv.2011.04.038



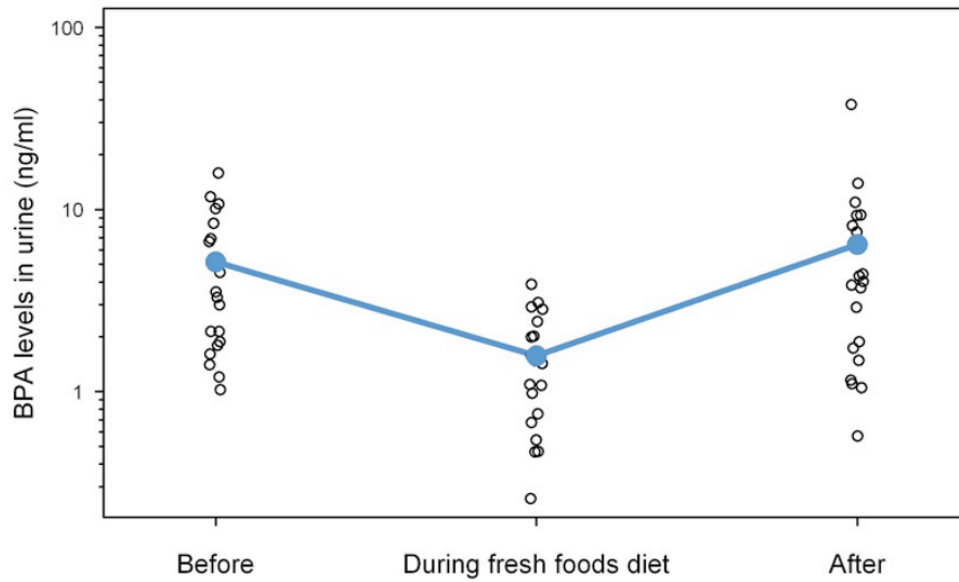
Buenas Noticias

**If we make simple changes,
chemicals in our bodies
decrease.**

Rudel, et al. Food Packaging and Bisphenol A and Bis(2-Ethylhexyl) Phthalate Exposure: Findings from a Dietary Intervention, Environmental Health Perspectives, pre-published online at: <http://ehp03.niehs.nih.gov/article/info:doi/10.1289/ehp.1003170>



BPA levels decline during 3-day fresh food diet



Source: Silent Spring Institute & Breast Cancer Fund

○ One person's sample
—● Study average

Los Cambios que se Necesitan



President's Cancer Panel Report, U.S, National Institutes of Health
The Endocrine Society - 14,000 members from 100 countries, physicians and scientists
World Health Organization's

Accion Gubernamental Alrededor del Mundo

BPA Bans:

- European Union (baby bottles)
- Beijing (baby bottles)
- Canada (baby bottles) (declared BPA a toxic substance)
- Denmark (children's food packaging)

Phthalate Bans:

- European Union - 6 phthalates in children's toys and articles
- United States - 6 phthalates in children's toys and articles

